

## Solid Tantalum Surface Mount Chip Capacitors TANTAMOUNT<sup>®</sup>, Molded Case, Low ESR



### PERFORMANCE CHARACTERISTICS

[www.vishay.com/doc?40088](http://www.vishay.com/doc?40088)

**Operating Temperature:** - 55 °C to + 85 °C  
(to + 125 °C with voltage derating)

**Capacitance Range:** 0.47 μF to 1000 μF

**Capacitance Tolerance:** ± 10 %, ± 20 %

**Voltage Rating:** 4 V<sub>DC</sub> to 63 V<sub>DC</sub>

### FEATURES

- Low ESR
- 100 % surge current tested (C, D, and E case sizes)
- Molded case available in seven case codes
- High ripple current carrying capability
- Terminations: 100 % matte tin, standard tin/lead available
- Compatible with “High Volume” automatic pick and place equipment
- Compliant terminations
- Meets IEC specification QC300801/US0001 and EIA535BAAC mechanical and performance requirements
- Moisture sensitivity level 1
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS\***  
COMPLIANT

### Note

- \* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

### APPLICATIONS

- Industrial
- Telecom infrastructure
- Consumer
- Computer
- General purpose

| ORDERING INFORMATION |                                  |  |                          |  |  |  |
|----------------------|----------------------------------|--|--------------------------|--|--|--|
| TR3                  | D                                | 107  | K                        | 010  | C  | 0100                                       |
| TYPE                 | CASE CODE                        | CAPACITANCE  | CAPACITANCE TOLERANCE    | DC VOLTAGE RATING AT + 85 °C   | TERMINATION AND PACKAGING  | ESR  |
|                      | See Ratings and Case Codes table | This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow. | K = ± 10 %<br>M = ± 20 % | This is expressed in V. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an “R” (6R3 = 6.3 V). | C = Matte tin/7" (178 mm) reels<br>D = Matte tin/13" (330 mm) reels<br>E = Tin/lead/7" (178 mm) reels<br>F = Tin/lead/13" (330 mm) reels | Maximum 100 kHz ESR in mΩ. See note below. |

### Notes

- We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size. Voltage substitutions will be marked with the higher voltage rating. Low ESR solid tantalum chip capacitors allow delta ESR of 1.25 times the datasheet limit after mounting.
- Dry pack is available per request, contact regional marketing.

| DIMENSIONS in inches [millimeters] |          |                               |                               |                               |                                |                               |                       |
|------------------------------------|----------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|-----------------------|
|                                    |          |                               |                               |                               |                                |                               |                       |
| CASE CODE                          | EIA SIZE | L                             | W                             | H                             | P                              | T <sub>W</sub>                | T <sub>H</sub> (MIN.) |
| A                                  | 3216-18  | 0.126 ± 0.008<br>[3.2 ± 0.20] | 0.063 ± 0.008<br>[1.6 ± 0.20] | 0.063 ± 0.008<br>[1.6 ± 0.20] | 0.031 ± 0.012<br>[0.80 ± 0.30] | 0.047 ± 0.004<br>[1.2 ± 0.10] | 0.028<br>[0.70]       |
| B                                  | 3528-21  | 0.138 ± 0.008<br>[3.5 ± 0.20] | 0.110 ± 0.008<br>[2.8 ± 0.20] | 0.075 ± 0.008<br>[1.9 ± 0.20] | 0.031 ± 0.012<br>[0.80 ± 0.30] | 0.087 ± 0.004<br>[2.2 ± 0.10] | 0.028<br>[0.70]       |
| C                                  | 6032-28  | 0.236 ± 0.012<br>[6.0 ± 0.30] | 0.126 ± 0.012<br>[3.2 ± 0.30] | 0.098 ± 0.012<br>[2.5 ± 0.30] | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.087 ± 0.004<br>[2.2 ± 0.10] | 0.039<br>[1.0]        |
| D                                  | 7343-31  | 0.287 ± 0.012<br>[7.3 ± 0.30] | 0.170 ± 0.012<br>[4.3 ± 0.30] | 0.110 ± 0.012<br>[2.8 ± 0.30] | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.094 ± 0.004<br>[2.4 ± 0.10] | 0.039<br>[1.0]        |
| E                                  | 7343-43  | 0.287 ± 0.012<br>[7.3 ± 0.30] | 0.169 ± 0.012<br>[4.3 ± 0.30] | 0.157 ± 0.012<br>[4.0 ± 0.30] | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.094 ± 0.004<br>[2.4 ± 0.10] | 0.039<br>[1.0]        |
| V                                  | 7343-20  | 0.287 ± 0.012<br>[7.3 ± 0.30] | 0.169 ± 0.012<br>[4.3 ± 0.30] | 0.079 max.<br>[2.0 max.]      | 0.051 ± 0.012<br>[1.3 ± 0.30]  | 0.094 ± 0.004<br>[2.4 ± 0.10] | 0.039<br>[1.0]        |
| W                                  | 7361-38  | 0.287 ± 0.012<br>[7.3 ± 0.30] | 0.236 ± 0.012<br>[6.0 ± 0.30] | 0.138 ± 0.012<br>[3.5 ± 0.30] | 0.047 ± 0.008<br>[1.2 ± 0.20]  | 0.122 ± 0.004<br>[3.1 ± 0.10] | 0.069<br>[1.75]       |

| RATINGS AND CASE CODES |       |         |           |                      |       |         |       |       |      |
|------------------------|-------|---------|-----------|----------------------|-------|---------|-------|-------|------|
| μF                     | 4 V   | 6.3 V   | 10 V      | 16 V                 | 20 V  | 25 V    | 35 V  | 50 V  | 63 V |
| 0.47                   |       |         |           |                      |       |         | A     |       |      |
| 0.68                   |       |         |           |                      |       |         | A     |       |      |
| 1.0                    |       |         |           |                      | A     | A       | A/B   | B/C   |      |
| 1.5                    |       |         |           |                      |       | A       | B/C   | B/C   |      |
| 2.2                    |       |         | A         | A                    | A     | A/B     | B/C   | B/C/D |      |
| 3.3                    |       |         |           | A                    | A/B   | A/B     | B/C   | C/D   |      |
| 4.7                    |       |         | A         | A/B                  | A/B   | A/B/C   | B/C/D | C/D/E | D    |
| 6.8                    |       |         | A         | A/B                  | A/B   | B/C     | C/D/E | D/E   |      |
| 10                     |       | A       | A/B       | A/B/C                | B/C   | B/C/D   | C/D/E | D/E   | E    |
| 15                     | A     | A       | A/B       | B/C                  | B/C   | B/C/D   | D/E   | E     |      |
| 22                     | A     | A/B     | A/B/C     | B/C/D                | B/C/D | C/D/E/V | D/E   |       |      |
| 33                     | A/B   | A/B     | B/C       | B/C/D                | C/D   | D/E     |       |       |      |
| 47                     | A/B   | A/B/C   | B/C/D     | C/D                  | D/E   | D/E     |       |       |      |
| 68                     | B/C   | B/C/D   | B/C/D/E/V | D                    | D/E   | E/W     |       |       |      |
| 100                    | A/B/C | B/C/D/V | B/C/D/E/V | D/E/V <sup>(1)</sup> | D/E/W | W       |       |       |      |
| 150                    | B/C/D | C/D/E   | C/D/E     | D/E                  | W     |         |       |       |      |
| 220                    | B/C/D | C/D/E/V | D/E/V     | E                    |       |         |       |       |      |
| 330                    | D     | D/E/W   | D/E/W     |                      |       |         |       |       |      |
| 470                    | D/E   | D/E/W   | E/W       |                      |       |         |       |       |      |
| 680                    | D/E   | E       |           |                      |       |         |       |       |      |
| 1000                   | E     | E       |           |                      |       |         |       |       |      |

**Note**
<sup>(1)</sup> Rating under development.

| MARKING  |                              |             |
|--|------------------------------|-------------|
| <p><b>A Case</b></p>   | <b>“A” CASE VOLTAGE CODE</b> |             |
|  | <b>VOLTS</b>                 | <b>CODE</b> |
|  | 4.0                          | G           |
|  | 6.3                          | J           |
|  | 10                           | A           |
|  | 16                           | C           |
|  | 20                           | D           |
|  | 25                           | E           |
| 35   | V                            |             |
| 50   | T                            |             |
| <p><b>B, C, D, E, V Cases</b></p>  |                              |             |
| <p><b>Marking</b><br/>                     Capacitor marking includes an anode (+) polarity band, capacitance in microfarads and the voltage rating. “A” Case capacitors use a letter code for the voltage and EIA capacitance code.<br/>                     The Vishay Sprague® trademark is included if space permits. Capacitors rated at 6.3 V are marked 6 V.<br/>                     A manufacturing date code is marked on all capacitors.<br/>                     Call the factory for further explanation.</p> |                              |             |

| STANDARD RATINGS   |           |                      |                          |                               |                                 |  |
|--|-----------|----------------------|--------------------------|-------------------------------|---------------------------------|--|
| CAPACITANCE (μF)   | CASE CODE | PART NUMBER          | MAX. DCL AT + 25 °C (μA) | MAX. DF AT + 25 °C 120 Hz (%) | MAX. ESR AT + 25 °C 100 kHz (Ω) | MAX. RIPPLE 100 kHz I <sub>RMS</sub> (A) |
| <b>4 V<sub>DC</sub> AT + 85 °C; 2.7 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                          |                               |                                 |  |
| 15   | A         | TR3A156(1)004(2)1500 | 0.6                      | 6                             | 1.500                           | 0.22                                     |
| 22   | A         | TR3A226(1)004(2)1500 | 0.9                      | 6                             | 1.500                           | 0.22                                     |
| 33   | A         | TR3A336(1)004(2)1500 | 1.3                      | 6                             | 1.500                           | 0.22                                     |
| 33   | B         | TR3B336(1)004(2)0500 | 1.3                      | 6                             | 0.500                           | 0.41                                     |
| 47   | A         | TR3A476(1)004(2)0800 | 1.9                      | 14                            | 0.800                           | 0.31                                     |
| 47   | A         | TR3A476(1)004(2)0500 | 1.9                      | 14                            | 0.500                           | 0.39                                     |
| 47   | B         | TR3B476(1)004(2)0500 | 1.9                      | 6                             | 0.500                           | 0.41                                     |
| 68   | B         | TR3B686(1)004(2)0500 | 2.7                      | 6                             | 0.500                           | 0.41                                     |
| 68   | C         | TR3C686(1)004(2)0275 | 2.7                      | 6                             | 0.275                           | 0.63                                     |
| 100  | A         | TR3A107M004(2)1000   | 10.0                     | 30                            | 1.000                           | 0.27                                     |
| 100  | B         | TR3B107(1)004(2)0450 | 4.0                      | 8                             | 0.450                           | 0.43                                     |
| 100  | C         | TR3C107(1)004(2)0225 | 4.0                      | 6                             | 0.225                           | 0.70                                     |
| 150  | B         | TR3B157(1)004(2)0900 | 6.0                      | 14                            | 0.900                           | 0.31                                     |
| 150  | B         | TR3B157(1)004(2)0500 | 6.0                      | 14                            | 0.500                           | 0.41                                     |
| 150  | B         | TR3B157(1)004(2)0400 | 6.0                      | 14                            | 0.400                           | 0.46                                     |
| 150  | C         | TR3C157(1)004(2)0250 | 6.0                      | 12                            | 0.250                           | 0.66                                     |
| 150  | D         | TR3D157(1)004(2)0150 | 6.0                      | 8                             | 0.150                           | 1.00                                     |
| 220  | B         | TR3B227M004(2)1100   | 8.8                      | 18                            | 1.100                           | 0.28                                     |
| 220  | B         | TR3B227M004(2)0700   | 8.8                      | 18                            | 0.700                           | 0.35                                     |
| 220  | B         | TR3B227M004(2)0500   | 8.8                      | 18                            | 0.500                           | 0.41                                     |
| 220  | B         | TR3B227M004(2)0450   | 8.8                      | 18                            | 0.450                           | 0.43                                     |
| 220  | C         | TR3C227(1)004(2)0200 | 8.8                      | 8                             | 0.200                           | 0.74                                     |
| 220  | D         | TR3D227(1)004(3)0050 | 8.8                      | 8                             | 0.050                           | 1.73                                     |
| 220  | D         | TR3D227(1)004(2)0150 | 8.8                      | 8                             | 0.150                           | 1.00                                     |
| 220  | D         | TR3D227(1)004(2)0100 | 8.8                      | 8                             | 0.100                           | 1.22                                     |
| 330  | D         | TR3D337(1)004(2)0100 | 13.2                     | 8                             | 0.100                           | 1.22                                     |
| 330  | D         | TR3D337(1)004(3)0045 | 13.2                     | 8                             | 0.045                           | 1.83                                     |
| 330  | D         | TR3D337(1)004(3)0035 | 13.2                     | 8                             | 0.035                           | 2.07                                     |

**Notes**

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |              |                      |                                      |  |   |  |
|--|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>4 V<sub>DC</sub> AT + 85 °C; 2.7 V<sub>DC</sub> AT + 125 °C</b> |              |                      |                                      |  |   |  |
| 330  | D            | TR3D337(1)004(2)0150 | 13.2                                 | 8                                      | 0.150   | 1.00                                       |
| 470  | D            | TR3D477(1)004(2)0125 | 18.8                                 | 10                                     | 0.125   | 1.10                                       |
| 470  | D            | TR3D477(1)004(2)0100 | 18.8                                 | 10                                     | 0.100   | 1.22                                       |
| 470  | D            | TR3D477(1)004(2)0060 | 18.8                                 | 10                                     | 0.060   | 1.58                                       |
| 470  | D            | TR3D477(1)004(3)0045 | 18.8                                 | 10                                     | 0.045   | 1.83                                       |
| 470  | D            | TR3D477(1)004(3)0035 | 18.8                                 | 10                                     | 0.035   | 2.07                                       |
| 470  | E            | TR3E477(1)004(2)0100 | 18.8                                 | 10                                     | 0.100   | 1.28                                       |
| 470  | E            | TR3E477(1)004(3)0045 | 18.8                                 | 10                                     | 0.045   | 1.91                                       |
| 470  | E            | TR3E477(1)004(3)0035 | 18.8                                 | 10                                     | 0.035   | 2.17                                       |
| 680  | D            | TR3D687M004(2)0100   | 27.2                                 | 25                                     | 0.100   | 1.22                                       |
| 680  | D            | TR3D687M004(3)0060   | 27.2                                 | 25                                     | 0.060   | 1.58                                       |
| 680  | E            | TR3E687(1)004(2)0100 | 27.2                                 | 12                                     | 0.100   | 1.28                                       |
| 1000   | E            | TR3E108M004(2)0100   | 40.0                                 | 20                                     | 0.100   | 1.28                                       |
| <b>6.3 V<sub>DC</sub> AT + 85 °C; 4 V<sub>DC</sub> AT 125 °C</b>   |              |                      |                                      |  |   |  |
| 10   | A            | TR3A106(1)6R3(2)2000 | 0.6                                  | 6                                      | 2.000   | 0.19                                       |
| 10   | A            | TR3A106(1)6R3(2)1500 | 0.6                                  | 6                                      | 1.500   | 0.22                                       |
| 15   | A            | TR3A156(1)6R3(2)2000 | 0.9                                  | 6                                      | 2.000   | 0.19                                       |
| 15   | A            | TR3A156(1)6R3(2)1000 | 0.9                                  | 6                                      | 1.000   | 0.27                                       |
| 22   | A            | TR3A226(1)6R3(2)3000 | 1.4                                  | 6                                      | 3.000   | 0.16                                       |
| 22   | A            | TR3A226(1)6R3(2)2000 | 1.4                                  | 6                                      | 2.000   | 0.19                                       |
| 22   | A            | TR3A226(1)6R3(2)1000 | 1.4                                  | 6                                      | 1.000   | 0.27                                       |
| 22   | A            | TR3A226(1)6R3(2)0900 | 1.4                                  | 6                                      | 0.900   | 0.29                                       |
| 22   | B            | TR3B226(1)6R3(2)0600 | 1.4                                  | 6                                      | 0.600   | 0.38                                       |
| 33   | A            | TR3A336(1)6R3(2)2000 | 2.0                                  | 14                                     | 2.000   | 0.19                                       |
| 33   | A            | TR3A336(1)6R3(2)0800 | 2.0                                  | 14                                     | 0.800   | 0.31                                       |
| 33   | A            | TR3A336(1)6R3(2)0600 | 2.0                                  | 14                                     | 0.600   | 0.35                                       |
| 33   | B            | TR3B336(1)6R3(2)0450 | 2.0                                  | 6                                      | 0.450   | 0.43                                       |
| 33   | B            | TR3B336(1)6R3(2)0350 | 2.0                                  | 6                                      | 0.350   | 0.49                                       |
| 33   | B            | TR3B336(1)6R3(2)0600 | 2.0                                  | 6                                      | 0.600   | 0.38                                       |
| 33   | B            | TR3B336(1)6R3(2)0500 | 2.0                                  | 6                                      | 0.500   | 0.41                                       |
| 47   | A            | TR3A476(1)6R3(2)0800 | 3.0                                  | 12                                     | 0.800   | 0.31                                       |
| 47   | B            | TR3B476(1)6R3(2)0550 | 3.0                                  | 6                                      | 0.550   | 0.39                                       |
| 47   | B            | TR3B476(1)6R3(2)0500 | 3.0                                  | 6                                      | 0.500   | 0.41                                       |
| 47   | B            | TR3B476(1)6R3(2)0350 | 3.0                                  | 6                                      | 0.350   | 0.49                                       |
| 47   | B            | TR3B476(1)6R3(2)0250 | 3.0                                  | 6                                      | 0.250   | 0.58                                       |
| 47   | C            | TR3C476(1)6R3(2)0300 | 3.0                                  | 6                                      | 0.300   | 0.61                                       |
| 47   | C            | TR3C476(1)6R3(2)0250 | 3.0                                  | 6                                      | 0.250   | 0.66                                       |
| 68   | B            | TR3B686(1)6R3(2)0650 | 4.3                                  | 6                                      | 0.650   | 0.36                                       |
| 68   | B            | TR3B686(1)6R3(2)0550 | 4.3                                  | 6                                      | 0.550   | 0.39                                       |
| 68   | B            | TR3B686(1)6R3(2)0500 | 4.3                                  | 6                                      | 0.500   | 0.41                                       |
| 68   | B            | TR3B686(1)6R3(2)0350 | 4.3                                  | 6                                      | 0.350   | 0.49                                       |
| 68   | B            | TR3B686(1)6R3(2)0250 | 4.3                                  | 6                                      | 0.250   | 0.58                                       |
| 68   | C            | TR3C686(1)6R3(2)0275 | 4.3                                  | 6                                      | 0.275   | 0.63                                       |
| 68   | C            | TR3C686(1)6R3(2)0250 | 4.3                                  | 6                                      | 0.250   | 0.66                                       |
| 68   | C            | TR3C686(1)6R3(2)0200 | 4.3                                  | 6                                      | 0.200   | 0.74                                       |
| 68   | D            | TR3D686(1)6R3(2)0200 | 4.3                                  | 6                                      | 0.200   | 0.87                                       |
| 68   | D            | TR3D686(1)6R3(2)0175 | 4.3                                  | 4                                      | 0.175   | 0.93                                       |
| 100  | B            | TR3B107(1)6R3(2)1500 | 6.3                                  | 15                                     | 1.500   | 0.24                                       |
| 100  | B            | TR3B107(1)6R3(2)0500 | 6.3                                  | 15                                     | 0.500   | 0.41                                       |
| 100  | B            | TR3B107(1)6R3(2)0400 | 6.3                                  | 15                                     | 0.400   | 0.46                                       |
| 100  | C            | TR3C107(1)6R3(2)0300 | 6.3                                  | 6                                      | 0.300   | 0.61                                       |
| 100  | C            | TR3C107(1)6R3(2)0250 | 6.3                                  | 6                                      | 0.250   | 0.66                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |              |                      |                                      |  |   |  |
|--|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>6.3 V<sub>DC</sub> AT + 85 °C; 4 V<sub>DC</sub> AT 125 °C</b> |              |                      |                                      |  |   |  |
| 100  | C            | TR3C107(1)6R3(2)0150 | 6.3                                  | 6                                      | 0.150   | 0.86                                       |
| 100  | C            | TR3C107(1)6R3(2)0125 | 6.3                                  | 6                                      | 0.125   | 0.94                                       |
| 100  | C            | TR3C107(1)6R3(2)0100 | 6.3                                  | 6                                      | 0.100   | 1.05                                       |
| 100  | D            | TR3D107(1)6R3(2)0150 | 6.3                                  | 6                                      | 0.150   | 1.00                                       |
| 100  | D            | TR3D107(1)6R3(2)0140 | 6.3                                  | 6                                      | 0.140   | 1.04                                       |
| 100  | V            | TR3V107(1)6R3(3)0200 | 6.3                                  | 8                                      | 0.200   | 0.79                                       |
| 100  | V            | TR3V107(1)6R3(3)0150 | 6.3                                  | 8                                      | 0.150   | 0.91                                       |
| 150  | C            | TR3C157(1)6R3(2)0300 | 9.4                                  | 8                                      | 0.300   | 0.61                                       |
| 150  | C            | TR3C157(1)6R3(2)0200 | 9.4                                  | 8                                      | 0.200   | 0.74                                       |
| 150  | D            | TR3D157(1)6R3(2)0150 | 9.4                                  | 8                                      | 0.150   | 1.00                                       |
| 150  | D            | TR3D157(1)6R3(2)0125 | 9.4                                  | 8                                      | 0.125   | 1.10                                       |
| 150  | D            | TR3D157(1)6R3(2)0075 | 9.4                                  | 8                                      | 0.075   | 1.41                                       |
| 150  | D            | TR3D157(1)6R3(2)0070 | 9.4                                  | 8                                      | 0.070   | 1.46                                       |
| 150  | D            | TR3D157(1)6R3(3)0050 | 9.4                                  | 8                                      | 0.050   | 1.73                                       |
| 150  | E            | TR3E157(1)6R3(2)0100 | 9.4                                  | 8                                      | 0.100   | 1.28                                       |
| 220  | C            | TR3C227(1)6R3(2)0300 | 13.9                                 | 14                                     | 0.300   | 0.61                                       |
| 220  | C            | TR3C227(1)6R3(2)0250 | 13.9                                 | 14                                     | 0.250   | 0.66                                       |
| 220  | C            | TR3C227(1)6R3(2)0225 | 13.9                                 | 14                                     | 0.225   | 0.70                                       |
| 220  | D            | TR3D227(1)6R3(2)0150 | 13.9                                 | 8                                      | 0.150   | 1.00                                       |
| 220  | D            | TR3D227(1)6R3(2)0100 | 13.9                                 | 8                                      | 0.100   | 1.22                                       |
| 220  | D            | TR3D227(1)6R3(3)0050 | 13.9                                 | 8                                      | 0.050   | 1.73                                       |
| 220  | E            | TR3E227(1)6R3(2)0150 | 13.9                                 | 8                                      | 0.150   | 1.05                                       |
| 220  | E            | TR3E227(1)6R3(2)0100 | 13.9                                 | 8                                      | 0.100   | 1.28                                       |
| 220  | V            | TR3V227(1)6R3(3)0100 | 13.9                                 | 10                                     | 0.100   | 1.12                                       |
| 220  | V            | TR3V227(1)6R3(3)0150 | 13.9                                 | 10                                     | 0.150   | 0.91                                       |
| 330  | D            | TR3D337(1)6R3(2)0150 | 20.8                                 | 8                                      | 0.150   | 1.00                                       |
| 330  | D            | TR3D337(1)6R3(2)0125 | 20.8                                 | 8                                      | 0.125   | 1.10                                       |
| 330  | D            | TR3D337(1)6R3(2)0100 | 20.8                                 | 8                                      | 0.100   | 1.22                                       |
| 330  | D            | TR3D337(1)6R3(2)0060 | 20.8                                 | 8                                      | 0.060   | 1.58                                       |
| 330  | D            | TR3D337(1)6R3(3)0050 | 20.8                                 | 8                                      | 0.050   | 1.73                                       |
| 330  | D            | TR3D337(1)6R3(3)0045 | 20.8                                 | 8                                      | 0.045   | 1.83                                       |
| 330  | D            | TR3D337(1)6R3(3)0035 | 20.8                                 | 8                                      | 0.035   | 2.07                                       |
| 330  | E            | TR3E337(1)6R3(2)0150 | 20.8                                 | 8                                      | 0.150   | 1.05                                       |
| 330  | E            | TR3E337(1)6R3(2)0100 | 20.8                                 | 8                                      | 0.100   | 1.28                                       |
| 330  | E            | TR3E337(1)6R3(2)0050 | 20.8                                 | 8                                      | 0.050   | 1.82                                       |
| 330  | W            | TR3W337(1)6R3(3)0100 | 20.8                                 | 8                                      | 0.100   | 1.58                                       |
| 330  | W            | TR3W337(1)6R3(3)0060 | 20.8                                 | 8                                      | 0.060   | 2.04                                       |
| 330  | W            | TR3W337(1)6R3(3)0040 | 20.8                                 | 8                                      | 0.040   | 2.50                                       |
| 470  | D            | TR3D477(1)6R3(2)0200 | 29.6                                 | 14                                     | 0.200   | 0.87                                       |
| 470  | D            | TR3D477(1)6R3(2)0150 | 29.6                                 | 14                                     | 0.150   | 1.00                                       |
| 470  | D            | TR3D477(1)6R3(2)0125 | 29.6                                 | 14                                     | 0.125   | 1.10                                       |
| 470  | D            | TR3D477(1)6R3(3)0100 | 29.6                                 | 14                                     | 0.100   | 1.22                                       |
| 470  | E            | TR3E477(1)6R3(2)0100 | 29.6                                 | 10                                     | 0.100   | 1.28                                       |
| 470  | E            | TR3E477(1)6R3(3)0065 | 29.6                                 | 10                                     | 0.065   | 1.59                                       |
| 470  | E            | TR3E477(1)6R3(3)0060 | 29.6                                 | 10                                     | 0.060   | 1.66                                       |
| 470  | E            | TR3E477(1)6R3(3)0050 | 29.6                                 | 10                                     | 0.050   | 1.82                                       |
| 470  | W            | TR3W477(1)6R3(3)0100 | 29.6                                 | 20                                     | 0.100   | 1.58                                       |
| 470  | W            | TR3W477(1)6R3(3)0060 | 29.6                                 | 20                                     | 0.060   | 2.04                                       |
| 470  | W            | TR3W477(1)6R3(3)0050 | 29.6                                 | 20                                     | 0.050   | 2.24                                       |
| 680  | E            | TR3E687(1)6R3(2)0100 | 42.8                                 | 20                                     | 0.100   | 1.28                                       |
| 1000   | E            | TR3E108M6R3(2)0200   | 63.0                                 | 30                                     | 0.200   | 0.91                                       |
| 1000   | E            | TR3E108M6R3(2)0150   | 63.0                                 | 30                                     | 0.150   | 1.05                                       |
| 1000   | E            | TR3E108M6R3(3)0100   | 63.0                                 | 30                                     | 0.100   | 1.28                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS  |              |                      |                                      |  |   |  |
|---|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                                       | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT 125 °C</b> |              |                      |                                      |  |   |  |
| 2.2   | A            | TR3A225(1)010(2)6800 | 0.5                                  | 6                                      | 6.800   | 0.11                                       |
| 2.2   | A            | TR3A225(1)010(2)6000 | 0.5                                  | 6                                      | 6.000   | 0.11                                       |
| 2.2   | A            | TR3A225(1)010(2)1800 | 0.5                                  | 6                                      | 1.800   | 0.20                                       |
| 4.7   | A            | TR3A475(1)010(2)3000 | 0.5                                  | 6                                      | 3.000   | 0.16                                       |
| 4.7   | A            | TR3A475(1)010(2)1500 | 0.5                                  | 6                                      | 1.500   | 0.22                                       |
| 4.7   | A            | TR3A475(1)010(2)1400 | 0.5                                  | 6                                      | 1.400   | 0.23                                       |
| 4.7   | A            | TR3A475(1)010(2)1000 | 0.5                                  | 6                                      | 1.000   | 0.27                                       |
| 6.8   | A            | TR3A685(1)010(2)1800 | 0.7                                  | 6                                      | 1.800   | 0.20                                       |
| 6.8   | A            | TR3A685(1)010(2)3000 | 0.7                                  | 6                                      | 3.000   | 0.16                                       |
| 10  | A            | TR3A106(1)010(2)2000 | 1.0                                  | 6                                      | 2.000   | 0.19                                       |
| 10  | A            | TR3A106(1)010(2)1800 | 1.0                                  | 6                                      | 1.800   | 0.20                                       |
| 10  | A            | TR3A106(1)010(2)1000 | 1.0                                  | 6                                      | 1.000   | 0.27                                       |
| 10  | A            | TR3A106(1)010(2)0900 | 1.0                                  | 6                                      | 0.900   | 0.29                                       |
| 10  | B            | TR3B106(1)010(2)1000 | 1.0                                  | 6                                      | 1.000   | 0.29                                       |
| 10  | B            | TR3B106(1)010(2)0800 | 1.0                                  | 6                                      | 0.800   | 0.33                                       |
| 10  | B            | TR3B106(1)010(2)0750 | 1.0                                  | 6                                      | 0.750   | 0.34                                       |
| 15  | A            | TR3A156(1)010(2)2000 | 1.5                                  | 6                                      | 2.000   | 0.19                                       |
| 15  | A            | TR3A156(1)010(2)1000 | 1.5                                  | 6                                      | 1.000   | 0.27                                       |
| 15  | B            | TR3B156(1)010(2)0600 | 1.5                                  | 6                                      | 0.600   | 0.38                                       |
| 15  | B            | TR3B156(1)010(2)0450 | 1.5                                  | 6                                      | 0.450   | 0.43                                       |
| 15  | B            | TR3B156(1)010(2)0700 | 1.5                                  | 6                                      | 0.700   | 0.35                                       |
| 22  | A            | TR3A226(1)010(2)1500 | 2.2                                  | 8                                      | 1.500   | 0.22                                       |
| 22  | A            | TR3A226(1)010(2)1000 | 2.2                                  | 8                                      | 1.000   | 0.27                                       |
| 22  | A            | TR3A226(1)010(2)0900 | 2.2                                  | 8                                      | 0.900   | 0.29                                       |
| 22  | A            | TR3A226(1)010(2)0800 | 2.2                                  | 8                                      | 0.800   | 0.31                                       |
| 22  | B            | TR3B226(1)010(2)1000 | 2.2                                  | 6                                      | 1.000   | 0.29                                       |
| 22  | B            | TR3B226(1)010(2)0700 | 2.2                                  | 6                                      | 0.700   | 0.35                                       |
| 22  | B            | TR3B226(1)010(2)0500 | 2.2                                  | 6                                      | 0.500   | 0.41                                       |
| 22  | B            | TR3B226(1)010(2)0400 | 2.2                                  | 6                                      | 0.400   | 0.46                                       |
| 22  | C            | TR3C226(1)010(2)0400 | 2.2                                  | 6                                      | 0.400   | 0.52                                       |
| 22  | C            | TR3C226(1)010(2)0345 | 2.2                                  | 6                                      | 0.345   | 0.56                                       |
| 22  | C            | TR3C226(1)010(2)0300 | 2.2                                  | 6                                      | 0.300   | 0.61                                       |
| 33  | B            | TR3B336(1)010(2)0425 | 3.3                                  | 6                                      | 0.425   | 0.45                                       |
| 33  | B            | TR3B336(1)010(2)1400 | 3.3                                  | 6                                      | 1.400   | 0.25                                       |
| 33  | B            | TR3B336(1)010(2)0650 | 3.3                                  | 6                                      | 0.650   | 0.36                                       |
| 33  | B            | TR3B336(1)010(2)0600 | 3.3                                  | 6                                      | 0.600   | 0.38                                       |
| 33  | B            | TR3B336(1)010(2)0500 | 3.3                                  | 6                                      | 0.500   | 0.41                                       |
| 33  | B            | TR3B336(1)010(2)0300 | 3.3                                  | 6                                      | 0.300   | 0.53                                       |
| 33  | C            | TR3C336(1)010(2)0375 | 3.3                                  | 6                                      | 0.375   | 0.54                                       |
| 33  | C            | TR3C336(1)010(2)0300 | 3.3                                  | 6                                      | 0.300   | 0.61                                       |
| 47  | B            | TR3B476(1)010(2)0600 | 4.7                                  | 6                                      | 0.600   | 0.38                                       |
| 47  | B            | TR3B476(1)010(2)0500 | 4.7                                  | 6                                      | 0.500   | 0.41                                       |
| 47  | B            | TR3B476(1)010(2)0350 | 4.7                                  | 6                                      | 0.350   | 0.49                                       |
| 47  | B            | TR3B476(1)010(2)0650 | 4.7                                  | 6                                      | 0.650   | 0.36                                       |
| 47  | C            | TR3C476(1)010(2)0200 | 4.7                                  | 6                                      | 0.200   | 0.74                                       |
| 47  | C            | TR3C476(1)010(2)0350 | 4.7                                  | 6                                      | 0.350   | 0.56                                       |
| 47  | C            | TR3C476(1)010(2)0300 | 4.7                                  | 6                                      | 0.300   | 0.61                                       |
| 47  | D            | TR3D476(1)010(2)0220 | 4.7                                  | 6                                      | 0.220   | 0.83                                       |
| 47  | D            | TR3D476(1)010(2)0200 | 4.7                                  | 6                                      | 0.200   | 0.87                                       |
| 47  | D            | TR3D476(1)010(2)0140 | 4.7                                  | 6                                      | 0.140   | 1.04                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
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  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |              |                      |                                      |  |   |  |
|--|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                                  | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| 10 V <sub>DC</sub> AT + 85 °C; 7 V <sub>DC</sub> AT 125 °C |              |                      |                                      |  |   |  |
| 47   | D            | TR3D476(1)010(2)0135 | 4.7                                  | 6                                      | 0.135   | 1.05                                       |
| 47   | D            | TR3D476(1)010(2)0100 | 4.7                                  | 6                                      | 0.100   | 1.22                                       |
| 68   | B            | TR3B686(1)010(2)1500 | 6.8                                  | 14                                     | 1.500   | 0.24                                       |
| 68   | B            | TR3B686(1)010(2)0900 | 6.8                                  | 14                                     | 0.900   | 0.31                                       |
| 68   | B            | TR3B686(1)010(2)0750 | 6.8                                  | 14                                     | 0.750   | 0.34                                       |
| 68   | B            | TR3B686(1)010(2)0600 | 6.8                                  | 14                                     | 0.600   | 0.38                                       |
| 68   | C            | TR3C686(1)010(2)0200 | 6.8                                  | 6                                      | 0.200   | 0.74                                       |
| 68   | C            | TR3C686(1)010(2)0300 | 6.8                                  | 6                                      | 0.300   | 0.61                                       |
| 68   | C            | TR3C686(1)010(2)0275 | 6.8                                  | 6                                      | 0.275   | 0.63                                       |
| 68   | C            | TR3C686(1)010(2)0225 | 6.8                                  | 6                                      | 0.225   | 0.70                                       |
| 68   | D            | TR3D686(1)010(2)0200 | 6.8                                  | 6                                      | 0.200   | 0.87                                       |
| 68   | D            | TR3D686(1)010(2)0150 | 6.8                                  | 6                                      | 0.150   | 1.00                                       |
| 68   | D            | TR3D686(1)010(2)0100 | 6.8                                  | 6                                      | 0.100   | 1.22                                       |
| 68   | D            | TR3D686(1)010(3)0070 | 6.8                                  | 6                                      | 0.070   | 1.46                                       |
| 68   | E            | TR3E686(1)010(2)0150 | 6.8                                  | 4                                      | 0.150   | 1.05                                       |
| 68   | V            | TR3V686(1)010(3)0700 | 6.8                                  | 6                                      | 0.700   | 0.42                                       |
| 68   | V            | TR3V686(1)010(3)0300 | 6.8                                  | 6                                      | 0.300   | 0.65                                       |
| 68   | V            | TR3V686(1)010(3)0200 | 6.8                                  | 6                                      | 0.200   | 0.79                                       |
| 68   | V            | TR3V686(1)010(3)0140 | 6.8                                  | 6                                      | 0.140   | 0.94                                       |
| 68   | V            | TR3V686(1)010(3)0100 | 6.8                                  | 6                                      | 0.100   | 1.12                                       |
| 100  | B            | TR3B107M010(2)1400   | 10.0                                 | 25                                     | 1.400   | 0.25                                       |
| 100  | C            | TR3C107(1)010(2)0200 | 10.0                                 | 8                                      | 0.200   | 0.74                                       |
| 100  | C            | TR3C107(1)010(2)0150 | 10.0                                 | 8                                      | 0.150   | 0.86                                       |
| 100  | C            | TR3C107(1)010(2)0100 | 10.0                                 | 8                                      | 0.100   | 1.05                                       |
| 100  | D            | TR3D107(1)010(2)0150 | 10.0                                 | 6                                      | 0.150   | 1.00                                       |
| 100  | D            | TR3D107(1)010(2)0100 | 10.0                                 | 6                                      | 0.100   | 1.22                                       |
| 100  | D            | TR3D107(1)010(2)0080 | 10.0                                 | 6                                      | 0.080   | 1.37                                       |
| 100  | D            | TR3D107(1)010(3)0070 | 10.0                                 | 6                                      | 0.070   | 1.52                                       |
| 100  | D            | TR3D107(1)010(3)0065 | 10.0                                 | 6                                      | 0.065   | 1.46                                       |
| 100  | D            | TR3D107(1)010(3)0050 | 10.0                                 | 6                                      | 0.050   | 1.73                                       |
| 100  | E            | TR3E107(1)010(2)0125 | 10.0                                 | 6                                      | 0.125   | 1.15                                       |
| 100  | E            | TR3E107(1)010(2)0150 | 10.0                                 | 6                                      | 0.150   | 1.05                                       |
| 100  | E            | TR3E107(1)010(2)0100 | 10.0                                 | 6                                      | 0.100   | 1.28                                       |
| 100  | V            | TR3V107(1)010(3)0400 | 10.0                                 | 8                                      | 0.400   | 0.56                                       |
| 100  | V            | TR3V107(1)010(3)0200 | 10.0                                 | 8                                      | 0.200   | 0.79                                       |
| 100  | V            | TR3V107(1)010(3)0150 | 10.0                                 | 8                                      | 0.150   | 0.91                                       |
| 150  | C            | TR3C157M010(2)0500   | 15.0                                 | 20                                     | 0.500   | 0.47                                       |
| 150  | D            | TR3D157(1)010(2)0150 | 15.0                                 | 8                                      | 0.150   | 1.00                                       |
| 150  | D            | TR3D157(1)010(2)0100 | 15.0                                 | 8                                      | 0.100   | 1.22                                       |
| 150  | D            | TR3D157(1)010(2)0075 | 15.0                                 | 8                                      | 0.075   | 1.41                                       |
| 150  | D            | TR3D157(1)010(3)0070 | 15.0                                 | 8                                      | 0.070   | 1.46                                       |
| 150  | D            | TR3D157(1)010(3)0050 | 15.0                                 | 8                                      | 0.050   | 1.73                                       |
| 150  | E            | TR3E157(1)010(2)0100 | 15.0                                 | 8                                      | 0.100   | 1.28                                       |
| 150  | E            | TR3E157(1)010(2)0080 | 15.0                                 | 8                                      | 0.080   | 1.44                                       |
| 220  | D            | TR3D227(1)010(2)0150 | 22.0                                 | 8                                      | 0.150   | 1.00                                       |
| 220  | D            | TR3D227(1)010(2)0125 | 22.0                                 | 8                                      | 0.125   | 1.10                                       |
| 220  | D            | TR3D227(1)010(2)0100 | 22.0                                 | 8                                      | 0.100   | 1.22                                       |
| 220  | D            | TR3D227(1)010(3)0050 | 22.0                                 | 8                                      | 0.050   | 1.73                                       |
| 220  | E            | TR3E227(1)010(2)0150 | 22.0                                 | 8                                      | 0.150   | 1.05                                       |
| 220  | E            | TR3E227(1)010(2)0100 | 22.0                                 | 8                                      | 0.100   | 1.28                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |           |                      |                          |                               |                                 |  |
|--|-----------|----------------------|--------------------------|-------------------------------|---------------------------------|--|
| CAPACITANCE (µF)   | CASE CODE | PART NUMBER          | MAX. DCL AT + 25 °C (µA) | MAX. DF AT + 25 °C 120 Hz (%) | MAX. ESR AT + 25 °C 100 kHz (Ω) | MAX. RIPPLE 100 kHz I <sub>RMS</sub> (A) |
| <b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT 125 °C</b>    |           |                      |                          |                               |                                 |  |
| 220  | E         | TR3E227(1)010(3)0070 | 22.0                     | 8                             | 0.070                           | 1.54                                     |
| 220  | E         | TR3E227(1)010(3)0060 | 22.0                     | 8                             | 0.060                           | 1.66                                     |
| 220  | E         | TR3E227(1)010(3)0050 | 22.0                     | 8                             | 0.050                           | 1.82                                     |
| 220  | V         | TR3V227(1)010(3)0200 | 30.0                     | 12                            | 0.200                           | 0.79                                     |
| 220  | V         | TR3V227(1)010(3)0150 | 30.0                     | 12                            | 0.150                           | 0.91                                     |
| 330  | D         | TR3D337(1)010(2)0150 | 33.0                     | 15                            | 0.150                           | 1.00                                     |
| 330  | D         | TR3D337(1)010(2)0125 | 33.0                     | 15                            | 0.125                           | 1.10                                     |
| 330  | D         | TR3D337(1)010(2)0100 | 33.0                     | 15                            | 0.100                           | 1.22                                     |
| 330  | E         | TR3E337(1)010(2)0100 | 33.0                     | 10                            | 0.100                           | 1.28                                     |
| 330  | E         | TR3E337(1)010(3)0060 | 33.0                     | 10                            | 0.060                           | 1.66                                     |
| 330  | W         | TR3W337(1)010(3)0100 | 33.0                     | 10                            | 0.100                           | 1.58                                     |
| 330  | W         | TR3W337(1)010(3)0060 | 33.0                     | 10                            | 0.060                           | 2.04                                     |
| 330  | W         | TR3W337(1)010(3)0040 | 33.0                     | 10                            | 0.040                           | 2.50                                     |
| 470  | E         | TR3E477(1)010(2)0200 | 47.0                     | 15                            | 0.200                           | 0.91                                     |
| 470  | E         | TR3E477(1)010(2)0150 | 47.0                     | 15                            | 0.150                           | 1.05                                     |
| 470  | E         | TR3E477(1)010(2)0100 | 47.0                     | 15                            | 0.100                           | 1.28                                     |
| 470  | E         | TR3E477(1)010(3)0075 | 47.0                     | 15                            | 0.075                           | 1.48                                     |
| 470  | W         | TR3W477(1)010(3)0100 | 47.0                     | 20                            | 0.100                           | 1.58                                     |
| 470  | W         | TR3W477(1)010(3)0060 | 47.0                     | 20                            | 0.060                           | 2.04                                     |
| 470  | W         | TR3W477(1)010(3)0050 | 47.0                     | 20                            | 0.050                           | 2.24                                     |
| <b>16 V<sub>DC</sub> AT + 85 °C; 10 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                          |                               |                                 |  |
| 2.2  | A         | TR3A225(1)016(2)4000 | 0.5                      | 6                             | 4.000                           | 0.14                                     |
| 2.2  | A         | TR3A225(1)016(2)3500 | 0.5                      | 6                             | 3.500                           | 0.15                                     |
| 2.2  | A         | TR3A225(1)016(2)1800 | 0.5                      | 6                             | 1.800                           | 0.20                                     |
| 3.3  | A         | TR3A335(1)016(2)4000 | 0.5                      | 6                             | 4.000                           | 0.14                                     |
| 3.3  | A         | TR3A335(1)016(2)3500 | 0.5                      | 6                             | 3.500                           | 0.15                                     |
| 4.7  | A         | TR3A475(1)016(2)3000 | 0.8                      | 6                             | 3.000                           | 0.16                                     |
| 4.7  | A         | TR3A475(1)016(2)2500 | 0.8                      | 6                             | 2.500                           | 0.17                                     |
| 4.7  | A         | TR3A475(1)016(2)2000 | 0.8                      | 6                             | 2.000                           | 0.19                                     |
| 4.7  | A         | TR3A475(1)016(2)1500 | 0.8                      | 6                             | 1.500                           | 0.22                                     |
| 4.7  | B         | TR3B475(1)016(2)1500 | 0.8                      | 6                             | 1.500                           | 0.24                                     |
| 4.7  | B         | TR3B475(1)016(2)0800 | 0.8                      | 6                             | 0.800                           | 0.33                                     |
| 6.8  | A         | TR3A685(1)016(2)3000 | 1.1                      | 6                             | 3.000                           | 0.16                                     |
| 6.8  | A         | TR3A685(1)016(2)1500 | 1.1                      | 6                             | 1.500                           | 0.22                                     |
| 6.8  | B         | TR3B685(1)016(2)1200 | 1.1                      | 6                             | 1.200                           | 0.27                                     |
| 6.8  | B         | TR3B685(1)016(2)0600 | 1.1                      | 6                             | 0.600                           | 0.38                                     |
| 10   | A         | TR3A106(1)016(2)1700 | 1.6                      | 6                             | 1.700                           | 0.21                                     |
| 10   | B         | TR3B106(1)016(2)0800 | 1.6                      | 6                             | 0.800                           | 0.33                                     |
| 10   | B         | TR3B106(1)016(2)0500 | 1.6                      | 6                             | 0.500                           | 0.41                                     |
| 10   | C         | TR3C106(1)016(2)0600 | 1.6                      | 6                             | 0.600                           | 0.43                                     |
| 10   | C         | TR3C106(1)016(2)0500 | 1.6                      | 6                             | 0.500                           | 0.47                                     |
| 10   | C         | TR3C106(1)016(2)0450 | 1.6                      | 6                             | 0.450                           | 0.49                                     |
| 15   | B         | TR3B156(1)016(2)0800 | 2.4                      | 6                             | 0.800                           | 0.33                                     |
| 15   | B         | TR3B156(1)016(2)0500 | 2.4                      | 6                             | 0.500                           | 0.41                                     |
| 15   | C         | TR3C156(1)016(2)0400 | 2.4                      | 6                             | 0.400                           | 0.52                                     |
| 22   | B         | TR3B226(1)016(2)1000 | 3.5                      | 6                             | 1.000                           | 0.29                                     |
| 22   | B         | TR3B226(1)016(2)0700 | 3.5                      | 6                             | 0.700                           | 0.35                                     |
| 22   | B         | TR3B226(1)016(2)0600 | 3.5                      | 6                             | 0.600                           | 0.38                                     |
| 22   | B         | TR3B226(1)016(2)0400 | 3.5                      | 6                             | 0.400                           | 0.46                                     |
| 22   | C         | TR3C226(1)016(2)0375 | 3.5                      | 6                             | 0.375                           | 0.54                                     |
| 22   | C         | TR3C226(1)016(2)0350 | 3.5                      | 6                             | 0.350                           | 0.56                                     |

Notes

- Part number definitions:
  - (1) Capacitance tolerance codes: K, M
  - (2) Terminations and packaging codes: C, D, E, F
  - (3) Lead (Pb)-free terminations and packaging codes: C, D
- (1) Rating under development.





| STANDARD RATINGS   |                  |                      |                                      |  |   |  |  |
|--|------------------|----------------------|--------------------------------------|--|---|--|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE<br>CODE     | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |  |
| <b>16 V<sub>DC</sub> AT + 85 °C; 10 V<sub>DC</sub> AT + 125 °C</b> |                  |                      |                                      |  |   |  |  |
| 22   | D                | TR3D226(1)016(2)0250 | 3.5                                  | 6                                      | 0.250   | 0.77                                       |  |
| 33   | B                | TR3B336(1)016(2)0700 | 5.3                                  | 6                                      | 0.700   | 0.35                                       |  |
| 33   | B                | TR3B336(1)016(2)0500 | 5.3                                  | 6                                      | 0.500   | 0.41                                       |  |
| 33   | B                | TR3B336(1)016(2)0350 | 5.3                                  | 6                                      | 0.350   | 0.49                                       |  |
| 33   | C                | TR3C336(1)016(2)0300 | 5.3                                  | 6                                      | 0.300   | 0.61                                       |  |
| 33   | C                | TR3C336(1)016(2)0225 | 5.3                                  | 6                                      | 0.225   | 0.70                                       |  |
| 33   | D                | TR3D336(1)016(2)0250 | 5.3                                  | 6                                      | 0.250   | 0.77                                       |  |
| 33   | D                | TR3D336(1)016(2)0225 | 5.3                                  | 4                                      | 0.225   | 0.82                                       |  |
| 33   | D                | TR3D336(1)016(2)0150 | 5.3                                  | 6                                      | 0.150   | 1.00                                       |  |
| 47   | C                | TR3C476(1)016(2)0500 | 7.5                                  | 6                                      | 0.500   | 0.47                                       |  |
| 47   | C                | TR3C476(1)016(2)0350 | 7.5                                  | 6                                      | 0.350   | 0.56                                       |  |
| 47   | C                | TR3C476(1)016(2)0300 | 7.5                                  | 6                                      | 0.300   | 0.61                                       |  |
| 47   | D                | TR3D476(1)016(2)0200 | 7.5                                  | 6                                      | 0.200   | 0.87                                       |  |
| 47   | D                | TR3D476(1)016(2)0150 | 7.5                                  | 6                                      | 0.150   | 1.00                                       |  |
| 47   | D                | TR3D476(1)016(2)0100 | 7.5                                  | 6                                      | 0.100   | 1.22                                       |  |
| 47   | D                | TR3D476(1)016(2)0080 | 7.5                                  | 6                                      | 0.080   | 1.37                                       |  |
| 47   | D                | TR3D476(1)016(2)0070 | 7.5                                  | 6                                      | 0.070   | 1.46                                       |  |
| 68   | D                | TR3D686(1)016(2)0150 | 10.9                                 | 6                                      | 0.150   | 1.00                                       |  |
| 68   | D                | TR3D686(1)016(2)0100 | 10.9                                 | 6                                      | 0.100   | 1.22                                       |  |
| 68   | D                | TR3D686(1)016(3)0070 | 10.9                                 | 6                                      | 0.070   | 1.46                                       |  |
| 100  | D                | TR3D107(1)016(2)0150 | 16.0                                 | 8                                      | 0.150   | 1.00                                       |  |
| 100  | D                | TR3D107(1)016(2)0125 | 16.0                                 | 8                                      | 0.125   | 1.10                                       |  |
| 100  | D                | TR3D107(1)016(2)0100 | 16.0                                 | 8                                      | 0.100   | 1.22                                       |  |
| 100  | D                | TR3D107(1)016(3)0075 | 16.0                                 | 8                                      | 0.075   | 1.41                                       |  |
| 100  | E                | TR3E107(1)016(2)0150 | 16.0                                 | 8                                      | 0.150   | 1.05                                       |  |
| 100  | E                | TR3E107(1)016(2)0125 | 16.0                                 | 8                                      | 0.125   | 1.15                                       |  |
| 100  | E                | TR3E107(1)016(2)0100 | 16.0                                 | 8                                      | 0.100   | 1.28                                       |  |
| 100  | V <sup>(1)</sup> | TR3V107(1)016(3)0150 | 16.0                                 | 10                                     | 0.150   | 0.91                                       |  |
| 100  | V <sup>(1)</sup> | TR3V107(1)016(3)0100 | 16.0                                 | 10                                     | 0.100   | 1.12                                       |  |
| 150  | D                | TR3D157(1)016(2)0400 | 24.0                                 | 8                                      | 0.400   | 0.61                                       |  |
| 150  | D                | TR3D157(1)016(2)0150 | 24.0                                 | 8                                      | 0.150   | 1.00                                       |  |
| 150  | D                | TR3D157(1)016(2)0125 | 24.0                                 | 8                                      | 0.125   | 1.10                                       |  |
| 150  | D                | TR3D157(1)016(2)0100 | 24.0                                 | 8                                      | 0.100   | 1.22                                       |  |
| 150  | D                | TR3D157(1)016(2)0085 | 24.0                                 | 8                                      | 0.085   | 1.33                                       |  |
| 150  | D                | TR3D157(1)016(3)0075 | 24.0                                 | 8                                      | 0.075   | 1.41                                       |  |
| 150  | D                | TR3D157(1)016(3)0060 | 24.0                                 | 8                                      | 0.060   | 1.58                                       |  |
| 150  | E                | TR3E157(1)016(2)0400 | 24.0                                 | 8                                      | 0.400   | 0.64                                       |  |
| 150  | E                | TR3E157(1)016(2)0150 | 24.0                                 | 8                                      | 0.150   | 1.05                                       |  |
| 150  | E                | TR3E157(1)016(2)0100 | 24.0                                 | 8                                      | 0.100   | 1.28                                       |  |
| 150  | E                | TR3E157(1)016(2)0075 | 24.0                                 | 8                                      | 0.075   | 1.48                                       |  |
| 150  | E                | TR3E157(1)016(2)0060 | 24.0                                 | 8                                      | 0.060   | 1.66                                       |  |
| 220  | E                | TR3E227(1)016(2)0150 | 35.2                                 | 14                                     | 0.150   | 1.05                                       |  |
| 220  | E                | TR3E227(1)016(2)0125 | 35.2                                 | 14                                     | 0.125   | 1.15                                       |  |
| 220  | E                | TR3E227(1)016(2)0100 | 35.2                                 | 14                                     | 0.100   | 1.28                                       |  |
| <b>20 V<sub>DC</sub> AT + 85 °C; 13 V<sub>DC</sub> AT + 125 °C</b> |                  |                      |                                      |  |   |  |  |
| 1.0  | A                | TR3A105(1)020(2)5500 | 0.5                                  | 4                                      | 5.500   | 0.12                                       |  |
| 1.0  | A                | TR3A105(1)020(2)3000 | 0.5                                  | 4                                      | 3.000   | 0.16                                       |  |
| 2.2  | A                | TR3A225(1)020(2)4000 | 0.5                                  | 6                                      | 4.000   | 0.14                                       |  |
| 2.2  | A                | TR3A225(1)020(2)3000 | 0.5                                  | 6                                      | 3.000   | 0.16                                       |  |
| 3.3  | A                | TR3A335(1)020(2)4000 | 0.7                                  | 6                                      | 4.000   | 0.14                                       |  |
| 3.3  | B                | TR3B335(1)020(2)1300 | 0.7                                  | 6                                      | 1.300   | 0.26                                       |  |
| 4.7  | A                | TR3A475(1)020(2)3500 | 0.9                                  | 6                                      | 3.500   | 0.15                                       |  |
| 4.7  | A                | TR3A475(1)020(2)1800 | 0.9                                  | 6                                      | 1.800   | 0.20                                       |  |
| 4.7  | B                | TR3B475(1)020(2)1000 | 0.9                                  | 6                                      | 1.000   | 0.29                                       |  |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS  |              |                      |                                      |  |   |  |
|---|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                                     | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| 20 V <sub>DC</sub> AT + 85 °C; 13 V <sub>DC</sub> AT + 125 °C |              |                      |                                      |  |   |  |
| 4.7   | B            | TR3B475(1)020(2)0750 | 0.9                                  | 6                                      | 0.750   | 0.34                                       |
| 6.8   | A            | TR3A685(1)020(2)3200 | 1.4                                  | 6                                      | 3.200   | 0.15                                       |
| 6.8   | A            | TR3A685(1)020(2)3000 | 1.4                                  | 6                                      | 3.000   | 0.16                                       |
| 6.8   | A            | TR3A685(1)020(2)2600 | 1.4                                  | 6                                      | 2.600   | 0.17                                       |
| 6.8   | B            | TR3B685(1)020(2)1000 | 1.4                                  | 6                                      | 1.000   | 0.29                                       |
| 6.8   | B            | TR3B685(1)020(2)0600 | 1.4                                  | 6                                      | 0.600   | 0.38                                       |
| 10  | B            | TR3B106(1)020(2)1000 | 2.0                                  | 6                                      | 1.000   | 0.29                                       |
| 10  | B            | TR3B106(1)020(2)0500 | 2.0                                  | 6                                      | 0.500   | 0.41                                       |
| 10  | C            | TR3C106(1)020(2)0700 | 2.0                                  | 6                                      | 0.700   | 0.40                                       |
| 10  | C            | TR3C106(1)020(2)0500 | 2.0                                  | 6                                      | 0.500   | 0.47                                       |
| 10  | C            | TR3C106(1)020(2)0475 | 2.0                                  | 6                                      | 0.475   | 0.48                                       |
| 10  | C            | TR3C106(1)020(2)0450 | 2.0                                  | 6                                      | 0.450   | 0.49                                       |
| 10  | C            | TR3C106(1)020(2)0400 | 2.0                                  | 6                                      | 0.400   | 0.52                                       |
| 15  | B            | TR3B156(1)020(2)1000 | 3.0                                  | 6                                      | 1.000   | 0.29                                       |
| 15  | B            | TR3B156(1)020(2)0500 | 3.0                                  | 6                                      | 0.500   | 0.41                                       |
| 15  | C            | TR3C156(1)020(2)0400 | 3.0                                  | 6                                      | 0.400   | 0.52                                       |
| 22  | B            | TR3B226(1)020(2)0800 | 4.4                                  | 6                                      | 0.800   | 0.33                                       |
| 22  | B            | TR3B226(1)020(2)0600 | 4.4                                  | 6                                      | 0.600   | 0.38                                       |
| 22  | B            | TR3B226(1)020(2)0400 | 4.4                                  | 6                                      | 0.400   | 0.46                                       |
| 22  | C            | TR3C226(1)020(2)0400 | 4.4                                  | 6                                      | 0.400   | 0.52                                       |
| 22  | C            | TR3C226(1)020(2)0375 | 4.4                                  | 6                                      | 0.375   | 0.54                                       |
| 22  | D            | TR3D226(1)020(2)0300 | 4.4                                  | 6                                      | 0.300   | 0.71                                       |
| 22  | D            | TR3D226(1)020(2)0225 | 3.5                                  | 4                                      | 0.225   | 0.82                                       |
| 22  | D            | TR3D226(1)020(2)0200 | 4.4                                  | 6                                      | 0.200   | 0.87                                       |
| 33  | C            | TR3C336(1)020(2)0350 | 6.6                                  | 6                                      | 0.350   | 0.56                                       |
| 33  | C            | TR3C336(1)020(2)0300 | 6.6                                  | 6                                      | 0.300   | 0.61                                       |
| 33  | C            | TR3C336(1)020(2)0200 | 6.6                                  | 6                                      | 0.200   | 0.74                                       |
| 33  | D            | TR3D336(1)020(2)0400 | 6.6                                  | 6                                      | 0.400   | 0.61                                       |
| 33  | D            | TR3D336(1)020(2)0250 | 6.6                                  | 6                                      | 0.250   | 0.77                                       |
| 33  | D            | TR3D336(1)020(2)0200 | 6.6                                  | 6                                      | 0.200   | 0.87                                       |
| 47  | D            | TR3D476(1)020(2)0200 | 9.4                                  | 6                                      | 0.200   | 0.87                                       |
| 47  | D            | TR3D476(1)020(2)0175 | 9.4                                  | 6                                      | 0.175   | 0.93                                       |
| 47  | D            | TR3D476(1)020(2)0150 | 9.4                                  | 6                                      | 0.150   | 1.00                                       |
| 47  | D            | TR3D476(1)020(3)0100 | 9.4                                  | 6                                      | 0.100   | 1.22                                       |
| 47  | E            | TR3E476(1)020(2)0150 | 9.4                                  | 6                                      | 0.150   | 1.05                                       |
| 47  | E            | TR3E476(1)020(3)0125 | 9.4                                  | 6                                      | 0.125   | 1.15                                       |
| 68  | D            | TR3D686(1)020(2)0200 | 13.6                                 | 6                                      | 0.200   | 0.87                                       |
| 68  | D            | TR3D686(1)020(2)0175 | 13.6                                 | 6                                      | 0.175   | 0.93                                       |
| 68  | D            | TR3D686(1)020(2)0150 | 13.6                                 | 6                                      | 0.150   | 1.00                                       |
| 68  | D            | TR3D686(1)020(2)0115 | 13.6                                 | 6                                      | 0.115   | 1.14                                       |
| 68  | E            | TR3E686(1)020(2)0200 | 13.6                                 | 6                                      | 0.200   | 0.91                                       |
| 68  | E            | TR3E686(1)020(2)0150 | 13.6                                 | 6                                      | 0.150   | 1.05                                       |
| 68  | E            | TR3E686(1)020(2)0125 | 13.6                                 | 6                                      | 0.125   | 1.15                                       |
| 68  | E            | TR3E686(1)020(2)0120 | 13.6                                 | 6                                      | 0.120   | 1.17                                       |
| 100   | D            | TR3D107(1)020(2)0200 | 20.0                                 | 8                                      | 0.200   | 0.87                                       |
| 100   | D            | TR3D107(1)020(2)0150 | 20.0                                 | 8                                      | 0.150   | 1.00                                       |
| 100   | D            | TR3D107(1)020(2)0100 | 20.0                                 | 8                                      | 0.100   | 1.22                                       |
| 100   | D            | TR3D107(1)020(3)0085 | 20.0                                 | 8                                      | 0.085   | 1.33                                       |
| 100   | D            | TR3D107(1)020(3)0080 | 20.0                                 | 8                                      | 0.080   | 1.37                                       |
| 100   | E            | TR3E107(1)020(2)0200 | 20.0                                 | 8                                      | 0.200   | 0.91                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |           |                      |                          |                               |                                 |  |
|--|-----------|----------------------|--------------------------|-------------------------------|---------------------------------|--|
| CAPACITANCE (μF)   | CASE CODE | PART NUMBER          | MAX. DCL AT + 25 °C (μA) | MAX. DF AT + 25 °C 120 Hz (%) | MAX. ESR AT + 25 °C 100 kHz (Ω) | MAX. RIPPLE 100 kHz I <sub>RMS</sub> (A) |
| <b>20 V<sub>DC</sub> AT + 85 °C; 13 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                          |                               |                                 |  |
| 100  | E         | TR3E107(1)020(2)0150 | 20.0                     | 8                             | 0.150                           | 1.05                                     |
| 100  | E         | TR3E107(1)020(2)0100 | 20.0                     | 8                             | 0.100                           | 1.28                                     |
| 100  | W         | TR3W107(1)020(3)0200 | 20.0                     | 8                             | 0.200                           | 1.12                                     |
| 100  | W         | TR3W107(1)020(3)0100 | 20.0                     | 8                             | 0.100                           | 1.58                                     |
| 100  | W         | TR3W107(1)020(3)0080 | 20.0                     | 8                             | 0.080                           | 1.77                                     |
| 100  | W         | TR3W107(1)020(3)0060 | 20.0                     | 8                             | 0.060                           | 2.04                                     |
| 150  | W         | TR3W157(1)020(3)0200 | 30.0                     | 10                            | 0.200                           | 1.12                                     |
| 150  | W         | TR3W157(1)020(3)0150 | 30.0                     | 10                            | 0.150                           | 1.29                                     |
| 150  | W         | TR3W157(1)020(3)0100 | 30.0                     | 10                            | 0.100                           | 1.58                                     |
| 150  | W         | TR3W157(1)020(3)0080 | 30.0                     | 10                            | 0.080                           | 1.77                                     |
| <b>25 V<sub>DC</sub> AT + 85 °C; 17 V<sub>DC</sub> AT + 125 °C</b> |           |                      |                          |                               |                                 |  |
| 1.0  | A         | TR3A105(1)025(2)4000 | 0.5                      | 4                             | 4.000                           | 0.14                                     |
| 1.5  | A         | TR3A155(1)025(2)4000 | 0.5                      | 6                             | 4.000                           | 0.14                                     |
| 1.5  | A         | TR3A155(1)025(2)3000 | 0.5                      | 6                             | 3.000                           | 0.16                                     |
| 2.2  | A         | TR3A225(1)025(2)4000 | 0.6                      | 6                             | 4.000                           | 0.14                                     |
| 2.2  | B         | TR3B225(1)025(2)1500 | 0.6                      | 6                             | 1.500                           | 0.24                                     |
| 2.2  | B         | TR3B225(1)025(2)1200 | 0.6                      | 6                             | 1.200                           | 0.27                                     |
| 2.2  | B         | TR3B225(1)025(2)0900 | 0.6                      | 6                             | 0.900                           | 0.31                                     |
| 3.3  | A         | TR3A335(1)025(2)3500 | 0.8                      | 6                             | 3.500                           | 0.15                                     |
| 3.3  | A         | TR3A335(1)025(2)3000 | 0.8                      | 6                             | 3.000                           | 0.16                                     |
| 3.3  | B         | TR3B335(1)025(2)2000 | 0.8                      | 6                             | 2.000                           | 0.21                                     |
| 3.3  | B         | TR3B335(1)025(2)1500 | 0.8                      | 6                             | 1.500                           | 0.24                                     |
| 3.3  | B         | TR3B335(1)025(2)0750 | 0.8                      | 6                             | 0.750                           | 0.34                                     |
| 4.7  | A         | TR3A475(1)025(2)3500 | 1.2                      | 6                             | 3.500                           | 0.15                                     |
| 4.7  | A         | TR3A475(1)025(2)3000 | 1.2                      | 6                             | 3.000                           | 0.16                                     |
| 4.7  | B         | TR3B475(1)025(2)1500 | 1.2                      | 6                             | 1.500                           | 0.24                                     |
| 4.7  | B         | TR3B475(1)025(2)1000 | 1.2                      | 6                             | 1.000                           | 0.29                                     |
| 4.7  | B         | TR3B475(1)025(2)0900 | 1.2                      | 6                             | 9.000                           | 0.10                                     |
| 4.7  | B         | TR3B475(1)025(2)0700 | 1.2                      | 6                             | 0.700                           | 0.35                                     |
| 4.7  | C         | TR3C475(1)025(2)0600 | 1.2                      | 6                             | 0.600                           | 0.43                                     |
| 4.7  | C         | TR3C475(1)025(2)0525 | 1.2                      | 6                             | 0.525                           | 0.46                                     |
| 6.8  | B         | TR3B685(1)025(2)2000 | 1.7                      | 6                             | 2.000                           | 0.21                                     |
| 6.8  | B         | TR3B685(1)025(2)1500 | 1.7                      | 6                             | 1.500                           | 0.24                                     |
| 6.8  | B         | TR3B685(1)025(2)1200 | 1.7                      | 6                             | 1.200                           | 0.27                                     |
| 6.8  | B         | TR3B685(1)025(2)0700 | 1.7                      | 6                             | 0.700                           | 0.35                                     |
| 6.8  | B         | TR3B685(1)025(3)0500 | 1.7                      | 6                             | 0.500                           | 0.41                                     |
| 6.8  | B         | TR3B685(1)025(3)0400 | 1.7                      | 6                             | 0.400                           | 0.46                                     |
| 6.8  | C         | TR3C685(1)025(2)0600 | 1.7                      | 6                             | 0.600                           | 0.43                                     |
| 6.8  | C         | TR3C685(1)025(2)0500 | 1.7                      | 6                             | 0.500                           | 0.47                                     |
| 10   | B         | TR3B106(1)025(2)1300 | 2.5                      | 6                             | 1.300                           | 0.26                                     |
| 10   | B         | TR3B106(1)025(2)1100 | 2.5                      | 6                             | 1.100                           | 0.28                                     |
| 10   | B         | TR3B106(1)025(2)0450 | 2.5                      | 6                             | 0.450                           | 0.43                                     |
| 10   | C         | TR3C106(1)025(2)0600 | 2.5                      | 6                             | 0.600                           | 0.43                                     |
| 10   | C         | TR3C106(1)025(2)0500 | 2.5                      | 6                             | 0.500                           | 0.47                                     |
| 10   | C         | TR3C106(1)025(2)0450 | 2.5                      | 6                             | 0.450                           | 0.49                                     |
| 10   | C         | TR3C106(1)025(2)0300 | 2.5                      | 6                             | 0.300                           | 0.61                                     |
| 10   | D         | TR3D106(1)025(2)0400 | 2.5                      | 6                             | 0.400                           | 0.61                                     |
| 10   | D         | TR3D106(1)025(2)0300 | 2.5                      | 6                             | 0.300                           | 0.71                                     |
| 15   | B         | TR3B156(1)025(2)1000 | 3.8                      | 6                             | 1.000                           | 0.29                                     |
| 15   | B         | TR3B156(1)025(2)0800 | 3.8                      | 6                             | 0.800                           | 0.33                                     |
| 15   | B         | TR3B156(1)025(2)0600 | 3.8                      | 6                             | 0.600                           | 0.38                                     |
| 15   | C         | TR3C156(1)025(2)0900 | 3.8                      | 6                             | 0.900                           | 0.35                                     |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS   |              |                      |                                      |  |   |  |
|--|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)  | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| <b>25 V<sub>DC</sub> AT + 85 °C; 17 V<sub>DC</sub> AT + 125 °C</b> |              |                      |                                      |  |   |  |
| 15   | C            | TR3C156(1)025(2)0425 | 3.8                                  | 6                                      | 0.425   | 0.51                                       |
| 15   | D            | TR3D156(1)025(2)0350 | 3.8                                  | 6                                      | 0.350   | 0.65                                       |
| 15   | D            | TR3D156(1)025(2)0275 | 3.8                                  | 6                                      | 0.275   | 0.74                                       |
| 15   | D            | TR3D156(1)025(2)0250 | 3.8                                  | 6                                      | 0.250   | 0.77                                       |
| 15   | D            | TR3D156(1)025(2)0200 | 3.8                                  | 6                                      | 0.200   | 0.87                                       |
| 22   | C            | TR3C226(1)025(2)1000 | 5.5                                  | 6                                      | 1.000   | 0.33                                       |
| 22   | C            | TR3C226(1)025(2)0900 | 5.5                                  | 6                                      | 0.900   | 0.35                                       |
| 22   | C            | TR3C226(1)025(2)0400 | 5.5                                  | 6                                      | 0.400   | 0.52                                       |
| 22   | C            | TR3C226(1)025(2)0425 | 5.5                                  | 6                                      | 0.425   | 0.51                                       |
| 22   | C            | TR3C226(1)025(2)0300 | 5.5                                  | 6                                      | 0.300   | 0.61                                       |
| 22   | C            | TR3C226(1)025(2)0275 | 5.5                                  | 6                                      | 0.275   | 0.63                                       |
| 22   | C            | TR3C226(1)025(2)0250 | 5.5                                  | 6                                      | 0.250   | 0.66                                       |
| 22   | D            | TR3D226(1)025(2)0300 | 5.5                                  | 6                                      | 0.300   | 0.71                                       |
| 22   | D            | TR3D226(1)025(2)0200 | 5.5                                  | 6                                      | 0.200   | 0.87                                       |
| 22   | E            | TR3E226(1)025(2)0300 | 5.5                                  | 6                                      | 0.300   | 0.74                                       |
| 22   | E            | TR3E226(1)025(2)0200 | 5.5                                  | 6                                      | 0.200   | 0.91                                       |
| 22   | V            | TR3V226(1)025(3)0500 | 5.5                                  | 6                                      | 0.500   | 0.50                                       |
| 22   | V            | TR3V226(1)025(3)0400 | 5.5                                  | 6                                      | 0.400   | 0.56                                       |
| 22   | V            | TR3V226(1)025(3)0250 | 5.5                                  | 6                                      | 0.250   | 0.71                                       |
| 33   | D            | TR3D336(1)025(2)0400 | 8.3                                  | 6                                      | 0.400   | 0.61                                       |
| 33   | D            | TR3D336(1)025(2)0300 | 8.3                                  | 6                                      | 0.300   | 0.71                                       |
| 33   | D            | TR3D336(1)025(2)0225 | 8.3                                  | 6                                      | 0.225   | 0.82                                       |
| 33   | D            | TR3D336(1)025(2)0200 | 8.3                                  | 6                                      | 0.200   | 0.87                                       |
| 33   | E            | TR3E336(1)025(2)0300 | 8.3                                  | 6                                      | 0.300   | 0.74                                       |
| 33   | E            | TR3E336(1)025(2)0200 | 8.3                                  | 6                                      | 0.200   | 0.91                                       |
| 33   | E            | TR3E336(1)025(2)0175 | 6.6                                  | 4                                      | 0.175   | 0.97                                       |
| 47   | D            | TR3D476(1)025(2)0350 | 11.8                                 | 8                                      | 0.350   | 0.65                                       |
| 47   | D            | TR3D476(1)025(2)0250 | 11.8                                 | 8                                      | 0.250   | 0.77                                       |
| 47   | D            | TR3D476(1)025(2)0200 | 11.8                                 | 8                                      | 0.200   | 0.87                                       |
| 47   | D            | TR3D476(1)025(2)0150 | 11.8                                 | 8                                      | 0.150   | 1.00                                       |
| 47   | D            | TR3D476(1)025(3)0125 | 11.8                                 | 8                                      | 0.125   | 1.10                                       |
| 47   | D            | TR3D476(1)025(3)0100 | 11.8                                 | 8                                      | 0.100   | 1.22                                       |
| 47   | E            | TR3E476(1)025(2)0300 | 11.8                                 | 6                                      | 0.300   | 0.74                                       |
| 47   | E            | TR3E476(1)025(2)0200 | 11.8                                 | 6                                      | 0.200   | 0.91                                       |
| 47   | E            | TR3E476(1)025(2)0150 | 11.8                                 | 8                                      | 0.150   | 1.05                                       |
| 47   | E            | TR3E476(1)025(3)0125 | 11.8                                 | 8                                      | 0.125   | 1.15                                       |
| 47   | E            | TR3E476(1)025(3)0100 | 11.8                                 | 8                                      | 0.100   | 1.28                                       |
| 68   | E            | TR3E686(1)025(2)0250 | 17.0                                 | 8                                      | 0.250   | 0.81                                       |
| 68   | W            | TR3W686(1)025(3)0200 | 17.0                                 | 6                                      | 0.200   | 1.12                                       |
| 68   | W            | TR3W686(1)025(3)0150 | 17.0                                 | 6                                      | 0.150   | 1.29                                       |
| 68   | W            | TR3W686(1)025(3)0095 | 17.0                                 | 6                                      | 0.095   | 1.62                                       |
| 100  | W            | TR3W107(1)025(3)0200 | 25.0                                 | 15                                     | 0.200   | 1.12                                       |
| 100  | W            | TR3W107(1)025(3)0150 | 25.0                                 | 15                                     | 0.150   | 1.29                                       |
| 100  | W            | TR3W107(1)025(3)0100 | 25.0                                 | 15                                     | 0.100   | 1.58                                       |
| <b>35 V<sub>DC</sub> AT + 85 °C; 23 V<sub>DC</sub> AT + 125 °C</b> |              |                      |                                      |  |   |  |
| 0.47   | A            | TR3A474(1)035(2)4000 | 0.5                                  | 4                                      | 4.000   | 0.14                                       |
| 0.68   | A            | TR3A684(1)035(2)6000 | 0.5                                  | 4                                      | 6.000   | 0.11                                       |
| 0.68   | A            | TR3A684(1)035(2)4000 | 0.5                                  | 4                                      | 4.000   | 0.14                                       |
| 1.0  | A            | TR3A105(1)035(2)6000 | 0.5                                  | 4                                      | 6.000   | 0.11                                       |
| 1.0  | A            | TR3A105(1)035(2)4000 | 0.5                                  | 4                                      | 4.000   | 0.14                                       |
| 1.0  | A            | TR3A105(1)035(2)3000 | 0.5                                  | 4                                      | 3.000   | 0.16                                       |
| 1.0  | B            | TR3B105(1)035(2)2000 | 0.5                                  | 4                                      | 2.000   | 0.21                                       |

**Notes**

- Part number definitions:
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  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| STANDARD RATINGS  |              |                      |                                      |  |   |  |
|---|--------------|----------------------|--------------------------------------|--|---|--|
| CAPACITANCE<br>( $\mu$ F)                                     | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu$ A) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{RMS}$<br>(A) |
| 35 V <sub>DC</sub> AT + 85 °C; 23 V <sub>DC</sub> AT + 125 °C |              |                      |                                      |  |   |  |
| 1.0   | B            | TR3B105(1)035(2)1700 | 0.5                                  | 4                                      | 1.700   | 0.22                                       |
| 1.0   | B            | TR3B105(1)035(2)1500 | 0.5                                  | 4                                      | 1.500   | 0.24                                       |
| 1.5   | B            | TR3B155(1)035(2)3000 | 0.5                                  | 6                                      | 3.000   | 0.17                                       |
| 1.5   | B            | TR3B155(1)035(2)2000 | 0.5                                  | 6                                      | 2.000   | 0.21                                       |
| 1.5   | C            | TR3C155(1)035(2)2500 | 0.5                                  | 6                                      | 2.500   | 0.21                                       |
| 1.5   | C            | TR3C155(1)035(2)0900 | 0.5                                  | 6                                      | 0.900   | 0.35                                       |
| 2.2   | B            | TR3B225(1)035(2)2500 | 0.8                                  | 6                                      | 2.500   | 0.18                                       |
| 2.2   | B            | TR3B225(1)035(2)2000 | 0.8                                  | 6                                      | 2.000   | 0.21                                       |
| 2.2   | B            | TR3B225(1)035(2)1500 | 0.8                                  | 6                                      | 1.500   | 0.24                                       |
| 2.2   | C            | TR3C225(1)035(2)1500 | 0.8                                  | 6                                      | 1.500   | 0.27                                       |
| 2.2   | C            | TR3C225(1)035(2)0900 | 0.8                                  | 6                                      | 0.900   | 0.35                                       |
| 3.3   | B            | TR3B335(1)035(2)1500 | 1.2                                  | 6                                      | 1.500   | 0.24                                       |
| 3.3   | B            | TR3B335(1)035(2)1000 | 1.2                                  | 6                                      | 1.000   | 0.29                                       |
| 3.3   | C            | TR3C335(1)035(2)0800 | 1.2                                  | 6                                      | 0.800   | 0.37                                       |
| 3.3   | C            | TR3C335(1)035(2)0700 | 1.2                                  | 6                                      | 0.700   | 0.40                                       |
| 3.3   | C            | TR3C335(1)035(2)0600 | 1.2                                  | 6                                      | 0.600   | 0.43                                       |
| 4.7   | B            | TR3B475(1)035(2)1500 | 1.6                                  | 6                                      | 1.500   | 0.24                                       |
| 4.7   | B            | TR3B475(1)035(2)1000 | 1.6                                  | 6                                      | 1.000   | 0.29                                       |
| 4.7   | B            | TR3B475(1)035(2)0700 | 1.6                                  | 6                                      | 0.700   | 0.35                                       |
| 4.7   | C            | TR3C475(1)035(2)0700 | 1.6                                  | 6                                      | 0.700   | 0.40                                       |
| 4.7   | C            | TR3C475(1)035(2)0600 | 1.6                                  | 6                                      | 0.600   | 0.43                                       |
| 4.7   | C            | TR3C475(1)035(2)0500 | 1.6                                  | 6                                      | 0.500   | 0.47                                       |
| 4.7   | D            | TR3D475(1)035(2)0700 | 1.6                                  | 6                                      | 0.700   | 0.46                                       |
| 6.8   | C            | TR3C685(1)035(2)0900 | 2.4                                  | 6                                      | 0.900   | 0.35                                       |
| 6.8   | C            | TR3C685(1)035(2)0475 | 2.4                                  | 6                                      | 0.475   | 0.48                                       |
| 6.8   | D            | TR3D685(1)035(2)0500 | 2.4                                  | 6                                      | 0.500   | 0.55                                       |
| 6.8   | D            | TR3D685(1)035(2)0400 | 2.4                                  | 6                                      | 0.400   | 0.61                                       |
| 6.8   | D            | TR3D685(1)035(2)0300 | 2.4                                  | 6                                      | 0.300   | 0.71                                       |
| 6.8   | E            | TR3E685(1)035(2)0300 | 2.4                                  | 4                                      | 0.300   | 0.74                                       |
| 10  | C            | TR3C106(1)035(2)1200 | 3.5                                  | 6                                      | 1.200   | 0.30                                       |
| 10  | C            | TR3C106(1)035(2)0450 | 3.5                                  | 6                                      | 0.450   | 0.49                                       |
| 10  | D            | TR3D106(1)035(2)0400 | 3.5                                  | 6                                      | 0.400   | 0.61                                       |
| 10  | D            | TR3D106(1)035(2)0300 | 3.5                                  | 6                                      | 0.300   | 0.71                                       |
| 10  | D            | TR3D106(1)035(2)0260 | 3.5                                  | 6                                      | 0.260   | 0.76                                       |
| 10  | D            | TR3D106(1)035(2)0250 | 3.5                                  | 6                                      | 0.250   | 0.77                                       |
| 10  | D            | TR3D106(1)035(2)0200 | 3.5                                  | 6                                      | 0.200   | 0.87                                       |
| 10  | D            | TR3D106(1)035(3)0135 | 3.5                                  | 6                                      | 0.135   | 1.05                                       |
| 10  | D            | TR3D106(1)035(3)0125 | 3.5                                  | 6                                      | 0.125   | 1.10                                       |
| 10  | E            | TR3E106(1)035(2)0250 | 3.5                                  | 6                                      | 0.250   | 0.81                                       |
| 10  | E            | TR3E106(1)035(2)0200 | 3.5                                  | 6                                      | 0.200   | 0.91                                       |
| 15  | D            | TR3D156(1)035(2)0350 | 5.3                                  | 6                                      | 0.350   | 0.65                                       |
| 15  | D            | TR3D156(1)035(2)0300 | 5.3                                  | 6                                      | 0.300   | 0.71                                       |
| 15  | D            | TR3D156(1)035(2)0260 | 5.3                                  | 6                                      | 0.260   | 0.76                                       |
| 15  | D            | TR3D156(1)035(2)0225 | 5.3                                  | 6                                      | 0.225   | 0.82                                       |
| 15  | D            | TR3D156(1)035(2)0200 | 5.3                                  | 6                                      | 0.200   | 0.87                                       |
| 15  | D            | TR3D156(1)035(2)0150 | 5.3                                  | 6                                      | 0.150   | 1.00                                       |
| 15  | E            | TR3E156(1)035(2)0300 | 5.3                                  | 6                                      | 0.300   | 0.74                                       |
| 15  | E            | TR3E156(1)035(2)0225 | 5.3                                  | 6                                      | 0.225   | 0.86                                       |
| 15  | E            | TR3E156(1)035(2)0200 | 5.3                                  | 6                                      | 0.200   | 0.91                                       |
| 15  | E            | TR3E156(1)035(2)0150 | 5.3                                  | 6                                      | 0.150   | 1.05                                       |
| 22  | D            | TR3D226(1)035(2)0400 | 7.7                                  | 6                                      | 0.400   | 0.61                                       |
| 22  | D            | TR3D226(1)035(2)0300 | 7.7                                  | 6                                      | 0.300   | 0.71                                       |

Notes

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



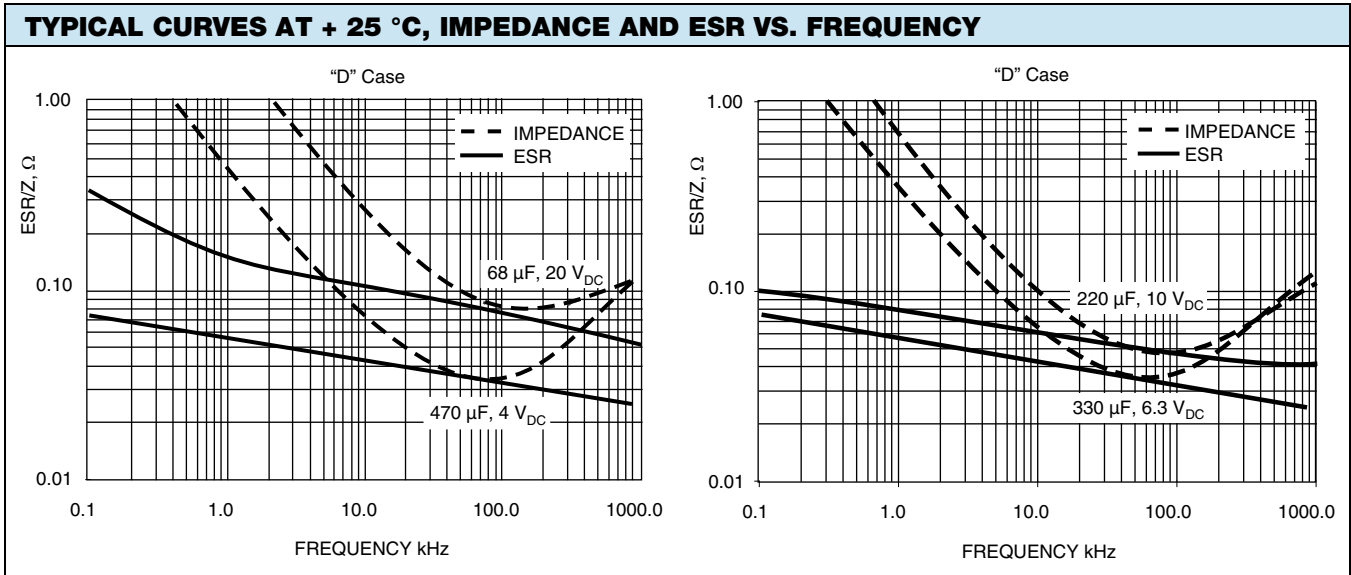
| STANDARD RATINGS   |              |                      |   |  |   |   |
|--|--------------|----------------------|---|--|---|---|
| CAPACITANCE<br>( $\mu\text{F}$ )                                   | CASE<br>CODE | PART NUMBER          | MAX. DCL<br>AT + 25 °C<br>( $\mu\text{A}$ ) | MAX. DF<br>AT + 25 °C<br>120 Hz<br>(%) | MAX. ESR<br>AT + 25 °C<br>100 kHz<br>( $\Omega$ ) | MAX. RIPPLE<br>100 kHz<br>$I_{\text{RMS}}$<br>(A) |
| <b>35 V<sub>DC</sub> AT + 85 °C; 23 V<sub>DC</sub> AT + 125 °C</b> |              |                      |   |  |   |   |
| 22   | D            | TR3D226(1)035(2)0275 | 7.7   | 6                                      | 0.275   | 0.74  |
| 22   | D            | TR3D226(1)035(2)0250 | 7.7   | 6                                      | 0.250   | 0.77  |
| 22   | D            | TR3D226(1)035(2)0200 | 7.7   | 6                                      | 0.200   | 0.87  |
| 22   | E            | TR3E226(1)035(2)0300 | 7.7   | 6                                      | 0.300   | 0.74  |
| 22   | E            | TR3E226(1)035(2)0275 | 7.7   | 6                                      | 0.275   | 0.77  |
| 22   | E            | TR3E226(1)035(2)0260 | 7.7   | 6                                      | 0.260   | 0.80  |
| 22   | E            | TR3E226(1)035(2)0200 | 7.7   | 6                                      | 0.200   | 0.91  |
| <b>50 V<sub>DC</sub> AT + 85 °C; 33 V<sub>DC</sub> AT + 125 °C</b> |              |                      |   |  |   |   |
| 1.0  | B            | TR3B105(1)050(2)4000 | 0.5   | 4                                      | 4.000   | 0.15  |
| 1.0  | B            | TR3B105(1)050(2)2000 | 0.5   | 4                                      | 2.000   | 0.21  |
| 1.0  | C            | TR3C105(1)050(2)1600 | 0.5   | 4                                      | 1.600   | 0.26  |
| 1.5  | B            | TR3B155(1)050(2)2000 | 0.8   | 6                                      | 2.000   | 0.21  |
| 1.5  | C            | TR3C155(1)050(2)1500 | 0.8   | 6                                      | 1.500   | 0.27  |
| 2.2  | B            | TR3B225(1)050(2)2000 | 1.1   | 6                                      | 2.000   | 0.21  |
| 2.2  | C            | TR3C225(1)050(2)1500 | 1.1   | 6                                      | 1.500   | 0.27  |
| 2.2  | D            | TR3D225(1)050(2)0800 | 1.1   | 6                                      | 0.800   | 0.43  |
| 3.3  | C            | TR3C335(1)050(2)1500 | 1.7   | 6                                      | 1.500   | 0.27  |
| 3.3  | D            | TR3D335(1)050(2)0800 | 1.7   | 6                                      | 0.800   | 0.43  |
| 4.7  | C            | TR3C475(1)050(2)1000 | 2.4   | 6                                      | 1.000   | 0.33  |
| 4.7  | C            | TR3C475(1)050(2)0700 | 2.4   | 6                                      | 0.700   | 0.40  |
| 4.7  | C            | TR3C475(1)050(2)0500 | 2.4   | 6                                      | 0.500   | 0.47  |
| 4.7  | D            | TR3D475(1)050(2)0700 | 2.4   | 6                                      | 0.700   | 0.46  |
| 4.7  | D            | TR3D475(1)050(2)0600 | 2.4   | 6                                      | 0.600   | 0.50  |
| 4.7  | D            | TR3D475(1)050(2)0500 | 2.4   | 6                                      | 0.500   | 0.55  |
| 4.7  | D            | TR3D475(1)050(2)0300 | 2.4   | 6                                      | 0.300   | 0.71  |
| 4.7  | E            | TR3E475(1)050(2)0600 | 2.4   | 4                                      | 0.600   | 0.52  |
| 4.7  | E            | TR3E475(1)050(2)0300 | 2.4   | 4                                      | 0.300   | 0.74  |
| 6.8  | D            | TR3D685(1)050(2)0700 | 3.4   | 6                                      | 0.700   | 0.46  |
| 6.8  | D            | TR3D685(1)050(2)0600 | 3.4   | 6                                      | 0.600   | 0.50  |
| 6.8  | D            | TR3D685(1)050(2)0500 | 3.4   | 6                                      | 0.500   | 0.55  |
| 6.8  | D            | TR3D685(1)050(2)0300 | 3.4   | 6                                      | 0.300   | 0.71  |
| 6.8  | E            | TR3E685(1)050(2)0550 | 3.4   | 6                                      | 0.550   | 0.55  |
| 6.8  | E            | TR3E685(1)050(2)0500 | 3.4   | 6                                      | 0.500   | 0.57  |
| 10   | D            | TR3D106(1)050(2)0700 | 5.0   | 6                                      | 0.700   | 0.46  |
| 10   | D            | TR3D106(1)050(2)0550 | 5.0   | 6                                      | 0.550   | 0.52  |
| 10   | D            | TR3D106(1)050(2)0450 | 5.0   | 6                                      | 0.450   | 0.58  |
| 10   | E            | TR3E106(1)050(2)0700 | 5.0   | 6                                      | 0.700   | 0.49  |
| 10   | E            | TR3E106(1)050(2)0550 | 5.0   | 6                                      | 0.550   | 0.55  |
| 10   | E            | TR3E106(1)050(2)0500 | 5.0   | 6                                      | 0.500   | 0.57  |
| 10   | E            | TR3E106(1)050(2)0400 | 5.0   | 6                                      | 0.400   | 0.64  |
| 10   | E            | TR3E106(1)050(2)0300 | 5.0   | 6                                      | 0.300   | 0.74  |
| 15   | E            | TR3E156(1)050(2)0400 | 7.5   | 6                                      | 0.400   | 0.64  |
| 15   | E            | TR3E156(1)050(3)0300 | 7.5   | 6                                      | 0.300   | 0.74  |
| <b>63 V<sub>DC</sub> AT + 85 °C; 40 V<sub>DC</sub> AT + 125 °C</b> |              |                      |   |  |   |   |
| 4.7  | D            | TR3D475(1)063(2)0700 | 3.0   | 6                                      | 0.700   | 0.46  |
| 10   | E            | TR3E106(1)063(2)0600 | 6.3   | 6                                      | 0.600   | 0.52  |

**Notes**

- Part number definitions:
  - Capacitance tolerance codes: K, M
  - Terminations and packaging codes: C, D, E, F
  - Lead (Pb)-free terminations and packaging codes: C, D
- Rating under development.



| <b>RECOMMENDED VOLTAGE DERATING GUIDELINES</b> (for temperatures below + 85 °C) |                   |
|---|-------------------|
| <b>STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS</b>                         |                   |
| Capacitor Voltage Rating  | Operating Voltage |
| 4.0   | 2.5               |
| 6.3   | 3.6               |
| 10  | 6.0               |
| 16  | 10                |
| 20  | 12                |
| 25  | 15                |
| 35  | 24                |
| 50  | 28                |
| 63  | 38                |
| <b>SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS</b>                            |                   |
| Capacitor Voltage Rating  | Operating Voltage |
| 4.0   | 2.5               |
| 6.3   | 3.3               |
| 10  | 5.0               |
| 16  | 8.0               |
| 20  | 10                |
| 25  | 12                |
| 35  | 15                |
| 50  | 24                |
| 63  | 32                |





| POWER DISSIPATION |  |
|-------------------|--|
| CASE CODE         | MAXIMUM PERMISSIBLE POWER DISSIPATION AT + 25 °C (W) IN FREE AIR |
| A                 | 0.075  |
| B                 | 0.085  |
| C                 | 0.110  |
| D                 | 0.150  |
| E                 | 0.165  |
| V                 | 0.125  |
| W                 | 0.250  |

| STANDARD PACKAGING QUANTITY |                |          |
|-----------------------------|----------------|----------|
| CASE CODE                   | UNITS PER REEL |          |
|                             | 7" REEL        | 13" REEL |
| A                           | 2000           | 9000     |
| B                           | 2000           | 8000     |
| C                           | 500            | 3000     |
| D                           | 500            | 2500     |
| E                           | 400            | 1500     |
| V                           | 1000           | 5000     |
| W                           | 500            | 2000     |

| PRODUCT INFORMATION                  |  |
|--------------------------------------|--|
| Guide for Molded Tantalum Capacitors | <a href="http://www.vishay.com/doc?40074">www.vishay.com/doc?40074</a> |
| Pad Dimensions                       |  |
| Packaging Dimensions                 |  |
| Moisture Sensitivity                 | <a href="http://www.vishay.com/doc?40135">www.vishay.com/doc?40135</a> |
| SELECTOR GUIDES                      |  |
| Solid Tantalum Selector Guide        | <a href="http://www.vishay.com/doc?49053">www.vishay.com/doc?49053</a> |
| Solid Tantalum Chip Capacitors       | <a href="http://www.vishay.com/doc?40091">www.vishay.com/doc?40091</a> |
| FAQ                                  |  |
| Frequently Asked Questions           | <a href="http://www.vishay.com/doc?40110">www.vishay.com/doc?40110</a> |





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