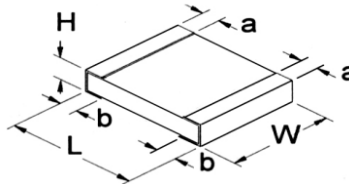


- Features:
- Precision performance
  - RoHS compliant / lead-free
  - Highly stable performance over time
  - Power derating from 100% at 70°C to zero at 150°C
  - Tolerances of 0.1% may be available - contact factory for details
  - Temperature coefficient of resistance as low as  $\pm 50 \text{ ppm}/^\circ\text{C}$



Electrical Specifications							
Type / Code	Old Package Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage (1)	Maximum Overload Voltage	TCR (ppm/°C)	Ohmic Range ( $\Omega$ ) and Tolerance	
						0.5%	1%
RGC0201	-	0.05W	25V	50V	$\pm 200 \text{ ppm}/^\circ\text{C}$	10 - 10M	-
RGC0402	1/16S	0.063W	50V	100V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	100 - 1M 10 - 1M	100 - 1M 10 - 1M
RGC0603	1/16	0.1W	50V	100V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	10 - 10M
RGC0805	1/10	0.125W	150V	300V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	10 - 10M
RGC1206	1/8	0.25W	200V	400V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	10 - 10M
RGC1210	1/4	0.33W	200V	400V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	10 - 10M
RGC2010	1/2	0.75W	200V	400V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	1 - 9.76 10 - 10M
RGC2512	1	1W	200V	400V	$\pm 50 \text{ ppm}/^\circ\text{C}$ $\pm 100 \text{ ppm}/^\circ\text{C}$	10 - 10M	10 - 10M

(1) Lesser of  $\sqrt{\text{PR}}$  or maximum working voltage.

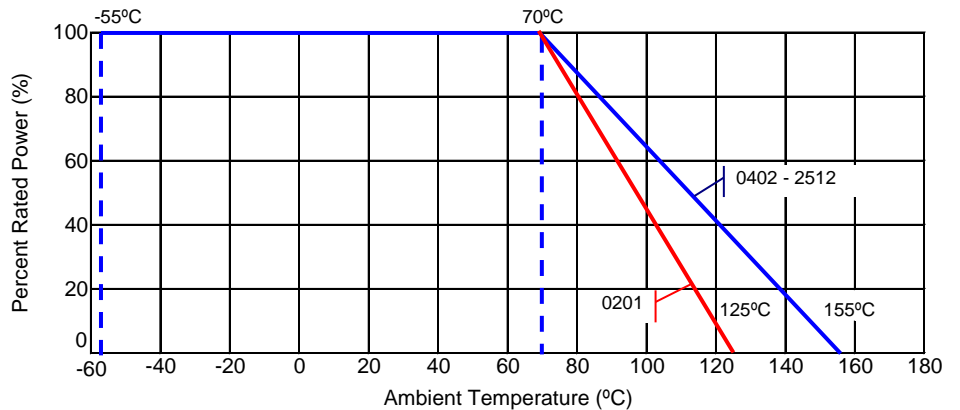


Mechanical Specifications						
Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Unit
RGC0201	0.024 $\pm$ 0.001 0.60 $\pm$ 0.03	0.012 $\pm$ 0.001 0.30 $\pm$ 0.03	0.009 $\pm$ 0.001 0.23 $\pm$ 0.03	0.006 $\pm$ 0.002 0.15 $\pm$ 0.05	0.006 $\pm$ 0.002 0.15 $\pm$ 0.05	inches mm
RGC0402	0.039 $\pm$ 0.004 1.00 $\pm$ 0.10	0.020 $\pm$ 0.002 0.50 $\pm$ 0.05	0.012 $\pm$ 0.004 0.30 $\pm$ 0.10	0.008 $\pm$ 0.004 0.20 $\pm$ 0.10	0.010 $\pm$ 0.006 0.25 $\pm$ 0.15	inches mm
RGC0603	0.063 $\pm$ 0.004 1.60 $\pm$ 0.10	0.031 $\pm$ 0.004 0.80 $\pm$ 0.10	0.018 $\pm$ 0.004 0.45 $\pm$ 0.10	0.012 $\pm$ 0.008 0.30 $\pm$ 0.20	0.012 $\pm$ 0.008 0.30 $\pm$ 0.20	inches mm
RGC0805	0.079 $\pm$ 0.004 2.00 $\pm$ 0.10	0.049 $\pm$ 0.004 1.25 $\pm$ 0.10	0.020 $\pm$ 0.004 0.50 $\pm$ 0.10	0.016 $\pm$ 0.010 0.40 $\pm$ 0.25	0.016 $\pm$ 0.008 0.40 $\pm$ 0.20	inches mm
RGC1206	0.122 $\pm$ 0.006 3.10 $\pm$ 0.15	0.061 $\pm$ 0.004 1.55 $\pm$ 0.10	0.024 $\pm$ 0.006 0.60 $\pm$ 0.15	0.020 $\pm$ 0.010 0.50 $\pm$ 0.25	0.020 $\pm$ 0.012 0.50 $\pm$ 0.30	inches mm
RGC1210	0.126 $\pm$ 0.010 3.20 $\pm$ 0.25	0.102 $\pm$ 0.006 2.60 $\pm$ 0.15	0.022 $\pm$ 0.004 0.55 $\pm$ 0.10	0.020 $\pm$ 0.010 0.50 $\pm$ 0.25	0.020 $\pm$ 0.008 0.50 $\pm$ 0.20	inches mm
RGC2010	0.197 $\pm$ 0.008 5.00 $\pm$ 0.20	0.098 $\pm$ 0.006 2.50 $\pm$ 0.15	0.022 $\pm$ 0.004 0.55 $\pm$ 0.10	0.024 $\pm$ 0.010 0.60 $\pm$ 0.25	0.024 $\pm$ 0.012 0.60 $\pm$ 0.30	inches mm
RGC2512	0.250 $\pm$ 0.008 6.35 $\pm$ 0.20	0.124 $\pm$ 0.008 3.15 $\pm$ 0.20	0.022 $\pm$ 0.004 0.55 $\pm$ 0.10	0.024 $\pm$ 0.010 0.60 $\pm$ 0.25	0.024 $\pm$ 0.012 0.60 $\pm$ 0.30	inches mm

Performance Characteristics		
Test	Test Conditions	Test Results
Endurance @ 125°C	125°C, No load, 1,000 hrs.	± 5%
Endurance @ 70°C	Rated Voltage, 1.5 hr. ON, 0.5 hr. OFF, 1,000 hrs. 70°C	± 5%
Resistance to Soldering Heat	260°C ± 5°C, 5 seconds +1/-0	± 1%
Short Time Overload	2 seconds at 2.5 times rated or limiting voltage	± 1%
Voltage Proof	100 volts AC, 60 seconds	No breakdown or flashover R ≥ 1GΩ

Operating Temperature Range for 0402-2512: -55°C to +150°C  
Operating Temperature Range for 0201: -55°C to 125°C

**Power Derating Curve:**



**How to Order**

1 2 3 4 5 6 7 8 9 10 11 12 13 14

**R G C 0 6 0 3 F T C 4 K 7 0**

Product Series		Size		Power		Tolerance			Packaging				TCR		Resistance Value
Code	Description	Code	Tol	Value	Code	Description	Size	Quantity	Code	ppm	Four characters with the multiplier used as the decimal holder.				
RGC	Semi-Precision Thick Film	0201	0.05W	D 0.5%	E24, E96	T	7" Reel Paper Tape	0201, 0402	10,000	C	50	100 ohm = 100R			
		0402	0.063W	F 1%			7" Reel Paper Tape	0603, 0805	5,000	D	100	10.5 Kohm = 10K5			
		0603	0.1W				7" Reel Plastic Tape	1206, 1210	5,000	L	200	1 Mohm = 1M00			
		0805	0.125W					2010(*)	4,000						
		1206	0.25W					2512							
		1210	0.33W												
		2010	0.75W												
		2512	1W												

(\*) RGC2010F 1Ω to 9.76Ω MOQ is 12,000

**Legacy Part Number (before January 3, 2011):**

SEI Type	Code	TCR	Nominal Resistance	Tolerance	Packaging																																													
<b>RGC</b>	<b>1/16</b>	<b>T2</b>	<b>4.7K</b>	<b>1%</b>	<b>R</b>																																													
	<table border="1"> <thead> <tr> <th>Code</th> <th>Wattage</th> <th>Size</th> </tr> </thead> <tbody> <tr><td>1/16S</td><td>0.063W</td><td>0402</td></tr> <tr><td>1/16</td><td>0.1W</td><td>0603</td></tr> <tr><td>1/10</td><td>0.125W</td><td>0805</td></tr> <tr><td>1/8</td><td>0.25W</td><td>1206</td></tr> <tr><td>1/4</td><td>0.33W</td><td>1210</td></tr> <tr><td>1/2</td><td>0.75W</td><td>2010</td></tr> <tr><td>1</td><td>1W</td><td>2512</td></tr> </tbody> </table>	Code	Wattage	Size	1/16S	0.063W	0402	1/16	0.1W	0603	1/10	0.125W	0805	1/8	0.25W	1206	1/4	0.33W	1210	1/2	0.75W	2010	1	1W	2512	<table border="1"> <thead> <tr> <th>TCR</th> </tr> </thead> <tbody> <tr><td>T1 = 100ppm</td></tr> <tr><td>T2 = 50ppm</td></tr> </tbody> </table>	TCR	T1 = 100ppm	T2 = 50ppm	<table border="1"> <thead> <tr> <th>Tolerance</th> <th>Values</th> </tr> </thead> <tbody> <tr><td>0.5%</td><td>E24, E96</td></tr> <tr><td>1%</td><td></td></tr> </tbody> </table>	Tolerance	Values	0.5%	E24, E96	1%		<table border="1"> <thead> <tr> <th>SEI Types</th> <th>Pig Qty</th> <th>Description</th> <th>Code</th> </tr> </thead> <tbody> <tr> <td>0402</td> <td>10,000</td> <td rowspan="2">7" reel paper tape</td> <td rowspan="3">R</td> </tr> <tr> <td>0603, 0805, 1206, 1210</td> <td>5,000</td> </tr> <tr> <td>2010(*), 2512</td> <td>4,000</td> <td>7: reel plastic tape</td> </tr> </tbody> </table>	SEI Types	Pig Qty	Description	Code	0402	10,000	7" reel paper tape	R	0603, 0805, 1206, 1210	5,000	2010(*), 2512	4,000	7: reel plastic tape
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