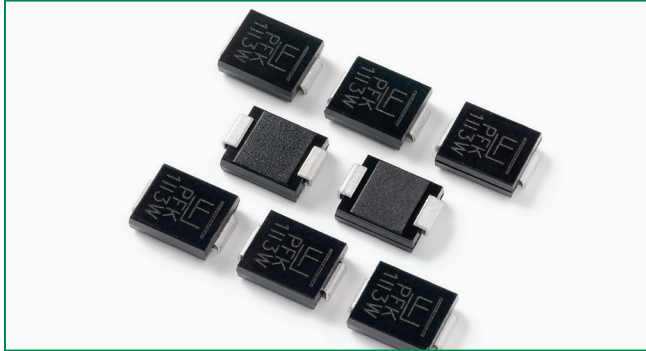


SMDJ Series



Agency Approvals

AGENCY	AGENCY FILE NUMBER
	E230531

Maximum Ratings and Thermal Characteristics
(T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at T _A =25°C by 10x1000µs waveform (Fig.1)(Note 1), (Note 2)	P _{PPM}	3000	W
Power Dissipation on infinite heat sink at T _A =50°C	P _{M(AV)}	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 3)	I _{FSM}	300	A
Maximum Instantaneous Forward Voltage at 100A for Unidirectional only	V _F	3.5	V
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-65 to 150	°C
Typical Thermal Resistance Junction to Lead	R _{WJL}	15	°C/W
Typical Thermal Resistance Junction to Ambient	R _{WJA}	75	°C/W

- Notes:**
1. Non-repetitive current pulse, per Fig. 3 and derated above T_A = 25°C per Fig. 2.
 2. Mounted on copper pad area of 0.31x0.31" (8.0 x 8.0mm) to each terminal.
 3. Measured on 8.3ms single half sine wave or equivalent square wave for unidirectional device only, duty cycle=4 per minute maximum.

Description

The SMDJ series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Halogen-Free
- RoHS compliant
- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Typical maximum temperature coefficient $\Delta V_{BR} = 0.1\% \times V_{BR}@25^\circ\text{C} \times \Delta T$
- Glass passivated chip junction
- 3000W peak pulse power capability at 10x1000µs waveform, repetition rate (duty cycles):0.01 %
- Fast response time: typically less than 1.0ps from 0V to BV min
- Excellent clamping capability
- Low incremental surge resistance
- Typical I_R less than 2µA above 12V
- High Temperature soldering guaranteed: 260°C/40 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability 94V-0
- Matte Tin Lead-free Plated

Applications

TVS devices are ideal for the protection of I/O Interfaces, V_{CC} bus and other vulnerable circuits used in Telecom, Computer, Industrial and Consumer electronic applications.

SMDJ Series

