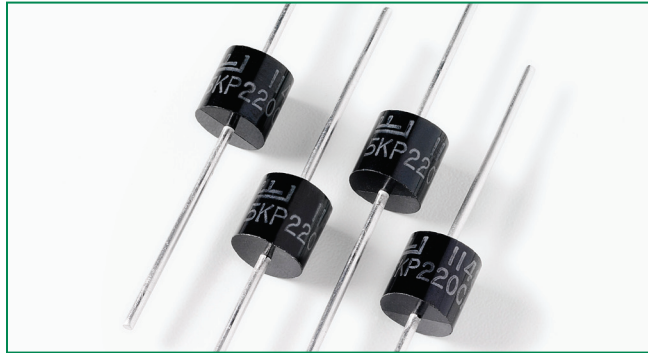


5KP Series



Agency Approvals

AGENCY	AGENCY FILE NUMBER
	E128662/E230531

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

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation by 10x1000µs test waveform (Fig.1) (Note 1)	P _{PPM}	5000	W
Steady State Power Dissipation on infinite heat sink at T _L =75°C (Fig. 5)	P _D	8.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Unidirectional only (Note 2)	I _{FSM}	400	A
Maximum Instantaneous Forward Voltage at 100A for Unidirectional only (Note 3)	V _F	3.5/5.0	V
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to 175	°C
Typical Thermal Resistance Junction to Lead	R _{θJL}	8.0	°C/W
Typical Thermal Resistance Junction to Ambient	R _{θJA}	40	°C/W

Notes:

1. Non-repetitive current pulse, per Fig. 3 and derated above T_A = 25°C per Fig. 2.
2. Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 per minute maximum.
3. V_F<3.5V for devices of V_{BR} ≤ 200V and V_F<5.0V for devices of V_{BR} ≥ 201V.

Description

The 5KP 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
- Typical maximum temperature coefficient
ΔV_{BR} = 0.1% × V_{BR} @25°C × ΔT
- Glass passivated chip junction in P600 package
- 5000W peak pulse capability at 10×1000µs waveform, repetition rate (duty cycles):0.01%
- Fast response time: typically less than 1.0ps from 0 Volts 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 / 0.375" (9.5mm) lead length, 5 lbs., (2.3kg) tension
- Plastic package has Underwriters Laboratory Flammability classification 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.

5KP Series

