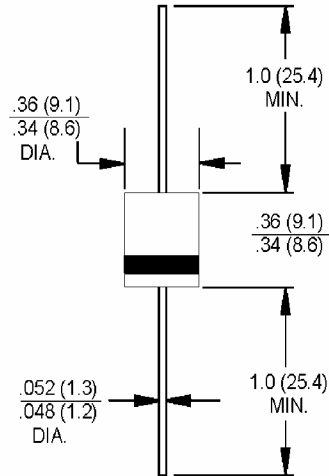




Features

- ✦ UL Recognized File # E-96005
- ✦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✦ Glass passivated junction
- ✦ 5000W peak pulse power capability with a 10/1000us waveform, repetition rate (duty cycle), 0.05%
- ✦ Excellent clamping capability
- ✦ Low incremental surge resistance
- ✦ Fast response time: Typically less than 1.0ps from 0 Volts to $V_{(BR)}$
- ✦ Devices with $V_{(BR)} > 10V$ I_D are typically I_D less than 1.0μA
- ✦ High temperature soldering guaranteed: 265°C / 10 seconds / .375", (9.5mm) lead length / 5lbs., (2.3kg) tension



Mechanical Data

- ✦ Case: Molded plastic body over glass passivated junction
- ✦ Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: The color band denotes the cathode, which is positive with respect to the anode under normal TVS operation
- ✦ Mounting Position: Any
- ✦ Weight: 0.07 ounce, 2.85 grams

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	Value	Units
Peak Power Dissipation at $T_A=25^{\circ}C$, $T_p=1ms$ (Note 1)	P_{PPM}	Minimum 5000	Watts
Steady State Power Dissipation at $T_L=75^{\circ}C$ Lead Lengths .375", 9.5mm (Note 2)	P_D	8.0	Watts
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) (Note 3)	I_{FSM}	400	Amps
Maximum Instantaneous Forward Voltage at 100A for Unidirectional Only (Note 3)	V_F	3.5	Volts
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	°C

Notes: 1. Non-repetitive Current Pulse Per Fig. 3 and Derated above $T_A=25^{\circ}C$ Per Fig. 2.

2. Mounted on Copper Pad Area of 0.8 x 0.8" (20 x 20 mm) Per Fig. 4.

3. 8.3ms Single Half Sine-wave or Equivalent Square Wave, Duty Cycle=4 Pulses Per Minutes Maximum.

RATINGS AND CHARACTERISTIC CURVES (5KP24A)

FIG.1- PEAK PULSE POWER RATING CURVE

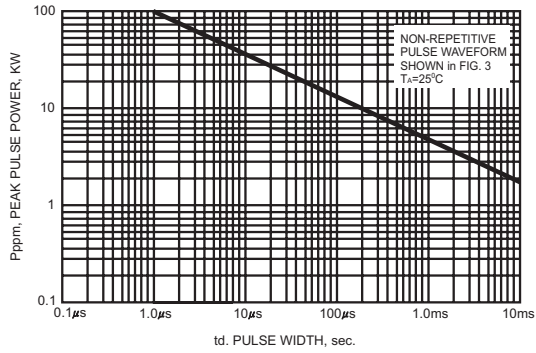


FIG.2- PULSE DERATING CURVE

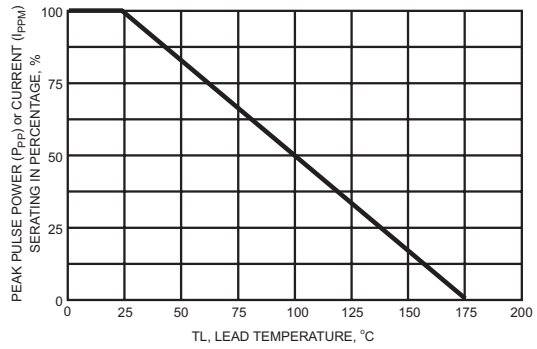


FIG.3- PULSE WAVEFORM

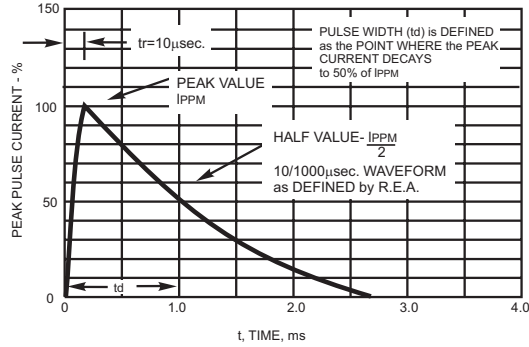


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL ONLY

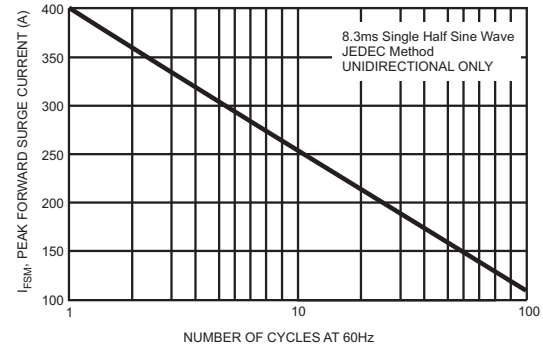


FIG.5- TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

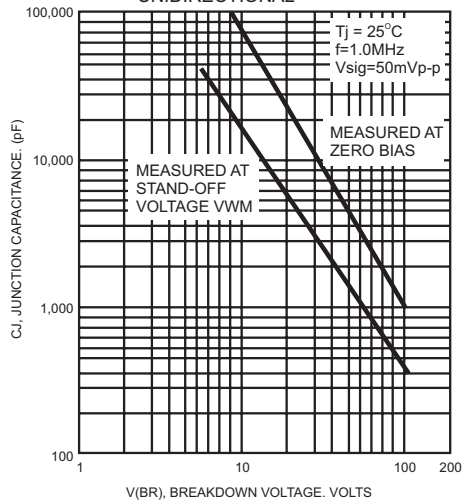
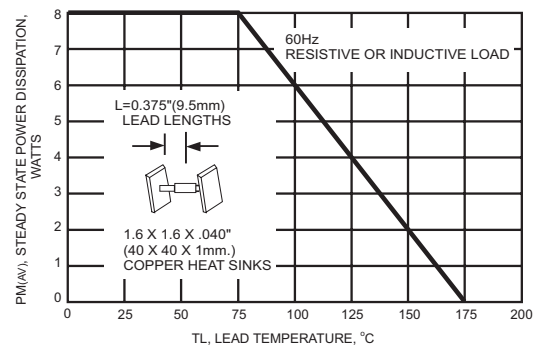


FIG.6- STEADY STATE POWER DERATING CURVE



ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Device	Breakdown Voltage		Test Current @I _T (mA)	Stand-Off Voltage V _{WM} (Volts)	Maximum Reverse Leakage at V _{WM} I _D (uA)	Maximum Peak Pulse Current I _{RSM} (Note 2)(Amps)	Maximum Clamping Voltage at I _{PPM} V _c (Volts)	Maximum Temperature Coefficient of V _{BR} (% / °C)
	V _{BR} (Volts) (Note 1)							
	Min	Max						
5KP24A	26.7	29.5	5.0	24	10	129	38.9	0.101

1. V_{BR} measured after I_T applied for 300us, I_T=square wave pulse or equivalent.
2. Surge current waveform per Figure 3 and derate per Figure 2.
3. All terms and symbols are consistent with ANSI/IEEE C62.35.