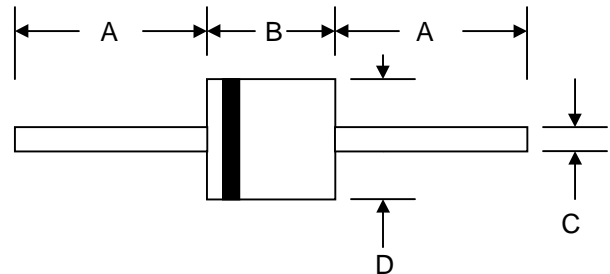


Features

- Glass Passivated Die Construction
- 3000W Peak Pulse Power Dissipation
- 180V – 220V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: P-600, Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band Except Bi-Directional
- Marking: Type Number
- Weight: 2.10 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 5**

P-600		
Dim	Min	Max
A	25.4	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
All Dimensions in mm		

“C” Suffix Designates Bi-directional Devices
 “A” Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A = 25^\circ\text{C}$ (Note 1, 2, 5) Figure 3	PPPM	3000 Minimum	W
Peak Forward Surge Current (Note 3)	IFSM	250	A
Peak Pulse Current on 10/1000 μS Waveform (Note 1) Figure 1	IPPM	See Table 1	A
Steady State Power Dissipation (Note 2, 4)	PM(AV)	8.0	W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +175	$^\circ\text{C}$

- Note: 1. Non-repetitive current pulse per Figure 1 and derated above $T_A = 25^\circ\text{C}$ per Figure 4.
 2. Mounted on 20mm² copper pad.
 3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum.
 4. Lead temperature at 75 $^\circ\text{C}$.
 5. Peak pulse power waveform is 10/1000 μS .

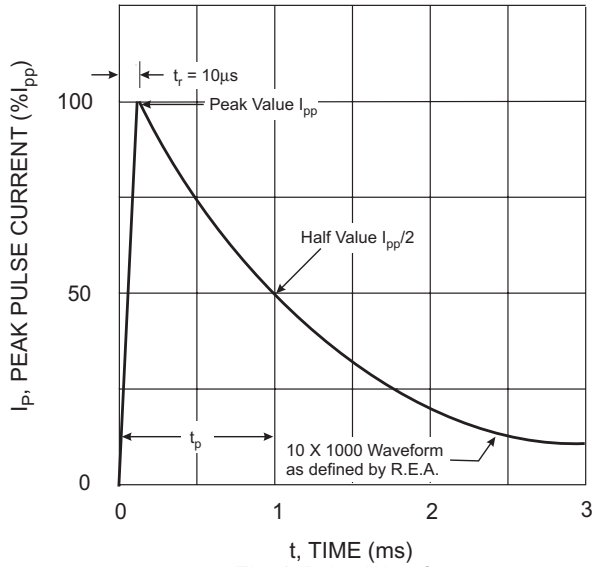


Fig. 1 Pulse Waveform

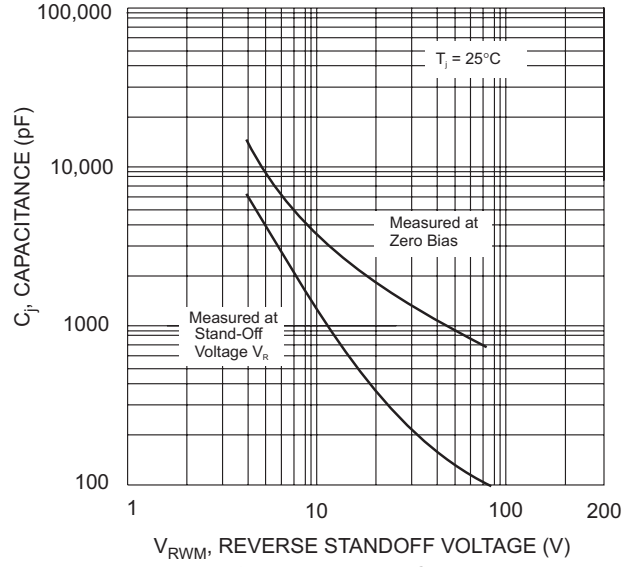


Fig. 2 Typical Junction Capacitance

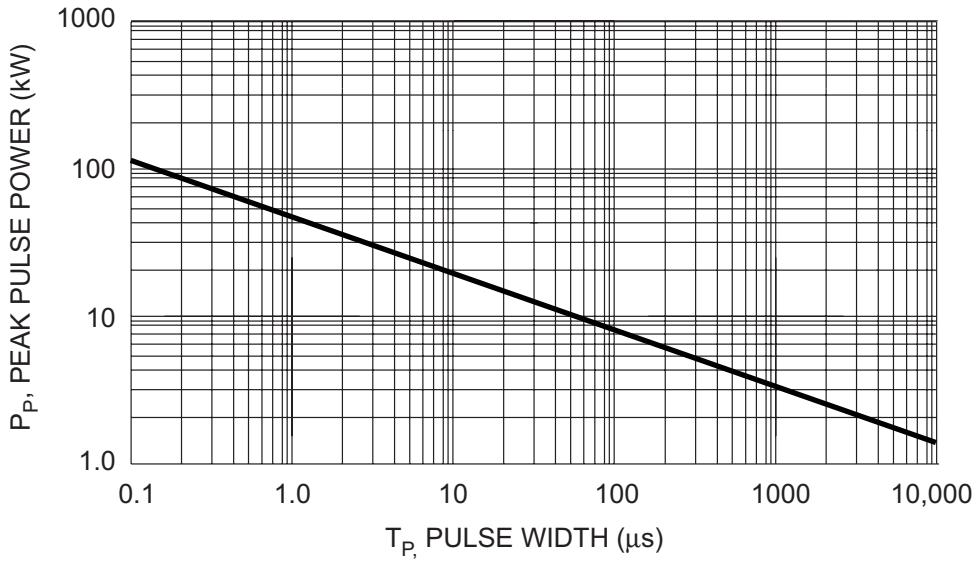


Fig. 3 Pulse Derating Curve

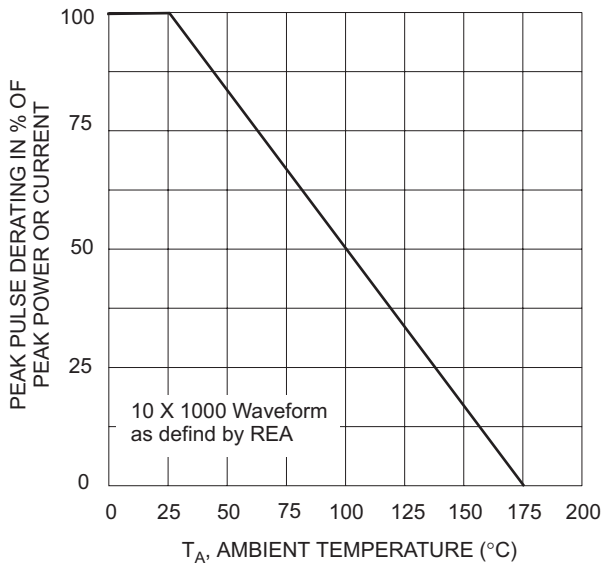


Fig. 4 Pulse Derating Curve

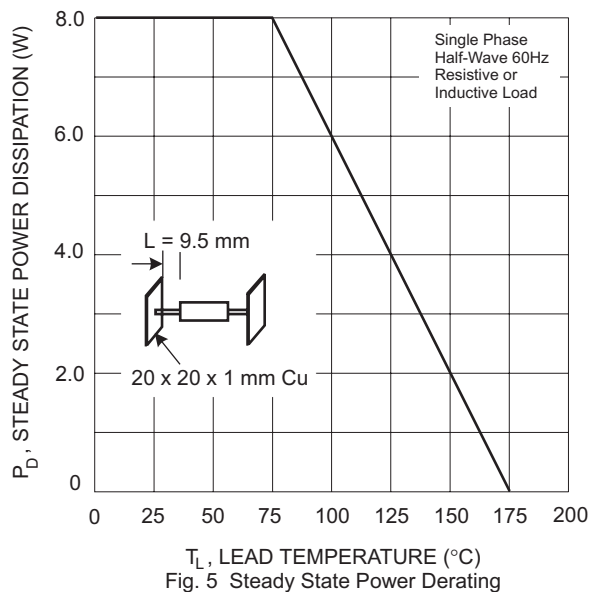


Fig. 5 Steady State Power Derating

UNI-DIRECTIONAL 3000 WATT AXIAL LEAD TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
3KP180	180.00	198.00	253.80	1	322.0	9.3	5
3KP180A	180.00	198.00	230.40	1	292.0	10.3	5
3KP190	190.00	209.00	267.90	1	340.0	8.8	5
3KP190A	190.00	209.00	243.20	1	308.0	9.7	5
3KP200	200.00	220.00	282.00	1	358.0	8.4	5
3KP200A	200.00	220.00	256.00	1	324.0	9.3	5
3KP210	210.00	231.00	296.10	1	376.0	7.8	5
3KP210A	210.00	231.00	268.80	1	340.0	8.8	5
3KP220	220.00	242.00	310.20	1	394.0	7.6	5
3KP220A	220.00	242.00	281.60	1	356.0	8.4	5

BI-DIRECTIONAL 3000 WATT AXIAL LEAD TVS

BI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
3KP180C	180.00	198.00	253.80	1	322.0	9.3	5
3KP180CA	180.00	198.00	230.40	1	292.0	10.3	5
3KP190C	190.00	209.00	267.90	1	340.0	8.8	5
3KP190CA	190.00	209.00	243.20	1	308.0	9.7	5
3KP200C	200.00	220.00	282.00	1	358.0	8.4	5
3KP200CA	200.00	220.00	256.00	1	324.0	9.3	5
3KP210C	210.00	231.00	296.10	1	376.0	7.8	5
3KP210CA	210.00	231.00	268.80	1	340.0	8.8	5
3KP220C	220.00	242.00	310.20	1	394.0	7.6	5
3KP220CA	220.00	242.00	281.60	1	356.0	8.4	5

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
3KPxx-T3	P-600	800/Tape & Reel
3KPxx	P-600	250 Units/Box

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version, add "-LF" suffix to part number above. For example, 3KP180-T3-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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We power your everyday.