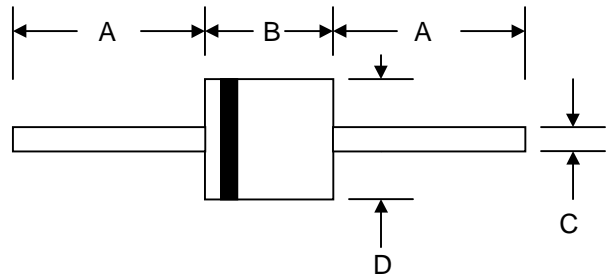


### Features

- Glass Passivated Die Construction
- 5000W Peak Pulse Power Dissipation
- 120V – 200V 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	5000 Minimum	W
Peak Forward Surge Current (Note 3)	IFSM	400	A
Peak Pulse Current on 10/1000 $\mu\text{S}$ 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 20mm<sup>2</sup> copper pad.  
 3. 8.3ms single half sine-wave duty cycle = 4 pulses per minute maximum.  
 4. Lead temperature at 75 $^\circ\text{C}$ .  
 5. Peak pulse power waveform is 10/1000 $\mu\text{S}$ .

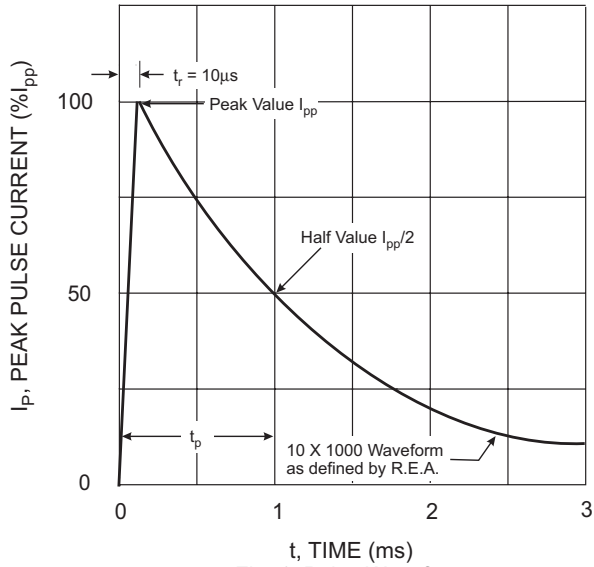


Fig. 1 Pulse Waveform

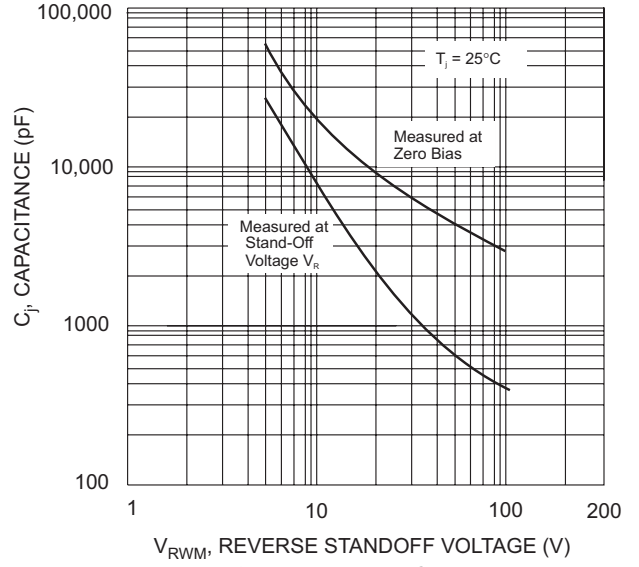


Fig. 2 Typical Junction Capacitance

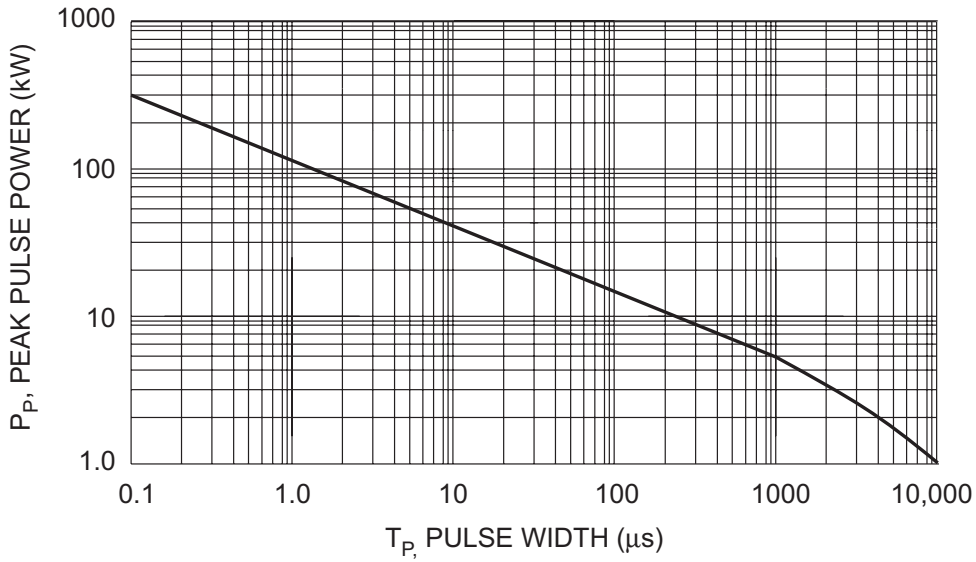


Fig. 3 Pulse Derating Curve

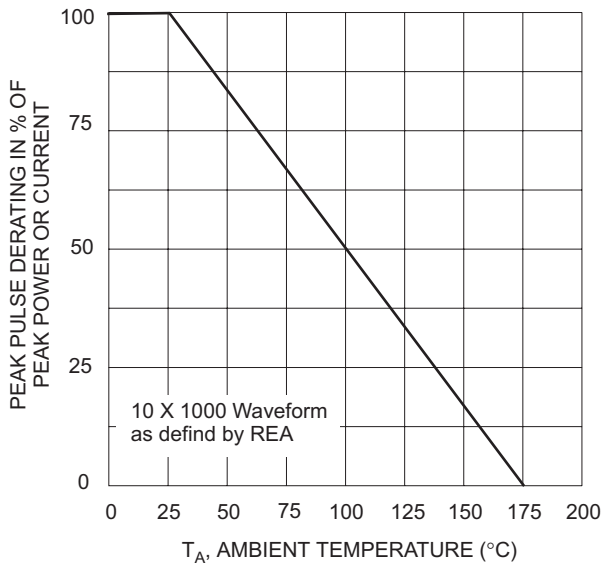


Fig. 4 Pulse Derating Curve

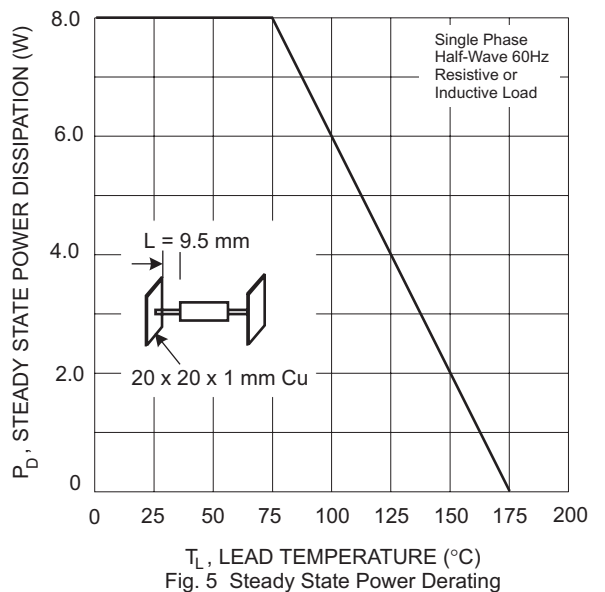


Fig. 5 Steady State Power Derating

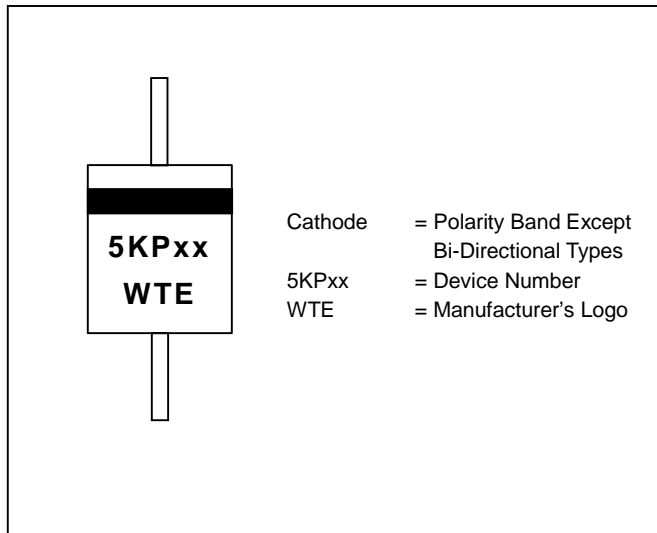
## UNI-DIRECTIONAL 5000 WATT AXIAL LEAD TVS

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)
5KP120	120.00	133.00	169.00	5	214.0	23	10
5KP120A	120.00	133.00	153.00	5	193.0	20	10
5KP130	130.00	144.00	182.50	5	231.0	22	10
5KP130A	130.00	144.00	165.50	5	209.0	24	10
5KP150	150.00	167.00	211.50	5	268.0	19	10
5KP150A	150.00	167.00	192.50	5	243.0	21	10
5KP160	160.00	178.00	226.00	5	287.0	17	10
5KP160A	160.00	178.00	205.00	5	259.0	19	10
5KP170	170.00	189.00	239.50	5	304.0	16	10
5KP170A	170.00	189.00	217.50	5	275.0	18	10
5KP180	180.00	198.00	253.80	1	322.0	16	5
5KP180A	180.00	198.00	230.40	1	292.0	17	5
5KP190	190.00	209.00	267.90	1	340.0	15	5
5KP190A	190.00	209.00	243.20	1	308.0	16	5
5KP200	200.00	220.00	282.00	1	358.0	14	5
5KP200A	200.00	220.00	256.00	1	324.0	15	5

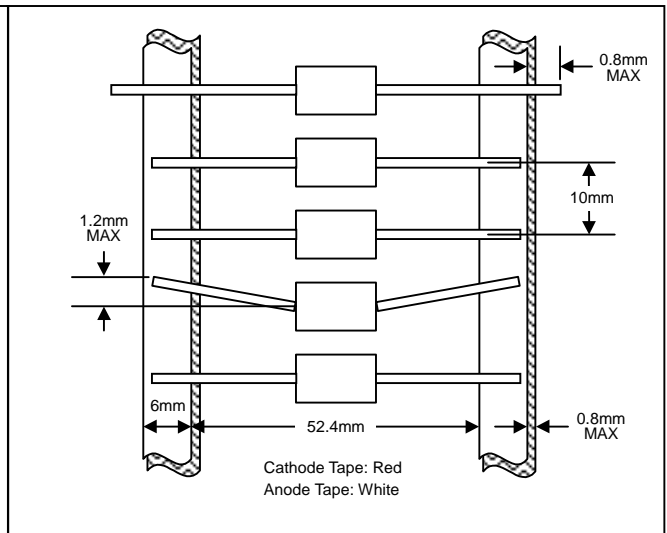
## BI-DIRECTIONAL 5000 WATT AXIAL LEAD TVS

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)
5KP120C	120.00	133.00	169.00	5	214.0	23	10
5KP120CA	120.00	133.00	153.00	5	193.0	20	10
5KP130C	130.00	144.00	182.50	5	231.0	22	10
5KP130CA	130.00	144.00	165.50	5	209.0	24	10
5KP150C	150.00	167.00	211.50	5	268.0	19	10
5KP150CA	150.00	167.00	192.50	5	243.0	21	10
5KP160C	160.00	178.00	226.00	5	287.0	17	10
5KP160CA	160.00	178.00	205.00	5	259.0	19	10
5KP170C	170.00	189.00	239.50	5	304.0	16	10
5KP170CA	170.00	189.00	217.50	5	275.0	18	10
5KP180C	180.00	198.00	253.80	1	322.0	16	5
5KP180CA	180.00	198.00	230.40	1	292.0	17	5
5KP190C	190.00	209.00	267.90	1	340.0	15	5
5KP190CA	190.00	209.00	243.20	1	308.0	16	5
5KP200C	200.00	220.00	282.00	1	358.0	14	5
5KP200CA	200.00	220.00	256.00	1	324.0	15	5

## MARKING INFORMATION



## TAPING SPECIFICATIONS



## PACKAGING INFORMATION

**TAPE & REEL**

330mm  
 Product ID Label  
 80±5mm

**BULK**

50mm  
 210mm  
 85mm

Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>TAPE &amp; REEL</b>	330	800	370 x 370 x 420	4,000	12.0
<b>BULK</b>	210 x 85 x 50	250	500 x 255 x 275	7,000	17.0

**Note:** 1. Paper reel, white or gray color. Core material: plastic or metal.  
 2. Components are packed in accordance with EIA standard RS-296-E.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
<b>5KPxx-T3</b>	P-600	800/Tape & Reel
5KPxx	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, 5KP120-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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**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*