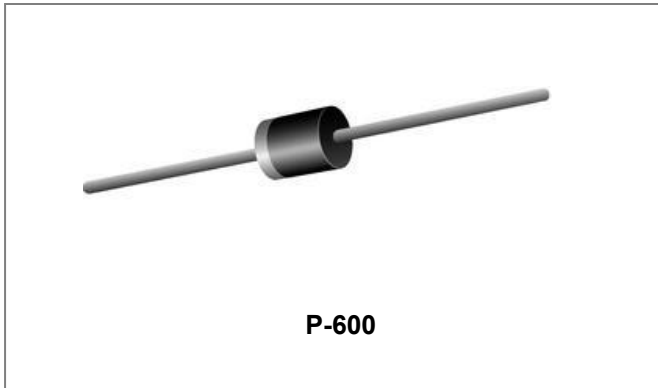


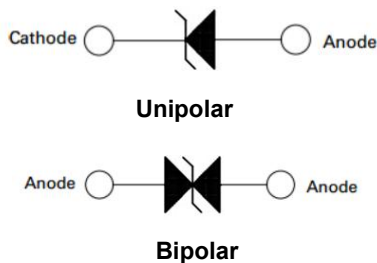
5KP SERIES GLASS PASSIVATED TRANSIENT VOLTAGE SUPPRESSOR



Features

- Glass Passivated Die Construction
- 5000W Peak Pulse Power Dissipation
- 120V- 220V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb – Free Device
- All SMC Parts are Traceable to the Wafer Lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: JEDEC P-600 Molded Plastic
- Terminals: Axial leads , Solderable per MIL-STD 750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Mounting Position: Any
- Weight:2.1 grams(approx.)

Maximum Ratings and Thermal Characteristics@T_A=25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at T _A =25°C (Fig.1)(Note 1, 2, 5)	P _{PPM}	5000	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave(Note 3)	I _{FSM}	400	A
Steady State Power Dissipation (Note 2, 4)	P _{M(AV)}	8.0	W
Typical Thermal Resistance Junction to Lead	R _{θJL}	8	°C/W
Typical Thermal Resistance Junction to Ambient	R _{θJA}	40	°C/W
Operating Junction 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°C per Fig. 2.
 2. Mounted on 20mm² copper pads.
 3. 8.3ms single half sine wave, duty cycle=4 pulses per minute maximum.
 4. Lead temperature at 75°C=T_L
 5. Peak pulse power waveform is 10x1000μs

Electrical Characteristics @T_A=25°C unless otherwise specified

UNI-POLAR	BI-POLAR	REVERSE STAND-OFF VOLTAGE V _{RWM} (V)	BREAKDOWN VOLTAGE V _{BR} (V) MIN. @I _T	BREAKDOWN VOLTAGE V _{BR} (V) MAX. @I _T	TEST CURRENT I _T (mA)	MAXIMUM CLAMPING VOLTAGE @I _{PP} V _C (V)	PEAK PULSE CURRENT I _{PP} (A)	REVERSE LEAKAGE @V _{RWM} I _R (uA)
5KP120A	5KP120CA	120	133	153	5	193	20	10
5KP130A	5KP130CA	130	144	165.5	5	209	24	10
5KP150A	5KP150CA	150	167	192.5	5	243	21	10
5KP160A	5KP160CA	160	178	205	5	259	19	10
5KP170A	5KP170CA	170	189	217.5	5	275	18	10
5KP180A	5KP180CA	180	198	230.4	1	292	17	5
5KP190A	5KP190CA	190	209	243.2	1	308	16	5
5KP200A	5KP200CA	200	220	256	1	324	15	5
5KP210A	5KP210CA	210	231	268.8	1	340	15	5
5KP220A	5KP220CA	220	242	281.6	1	356	14	5

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

Ratings and Characteristics Curves

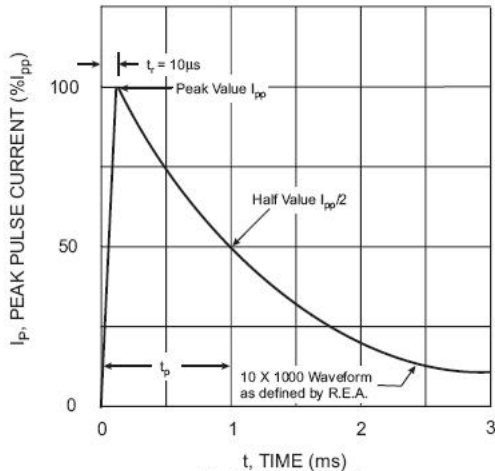


Fig. 1 Pulse Waveform

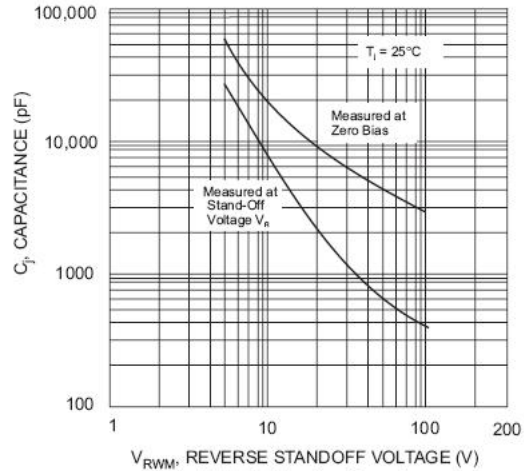


Fig. 2 Typical Junction Capacitance

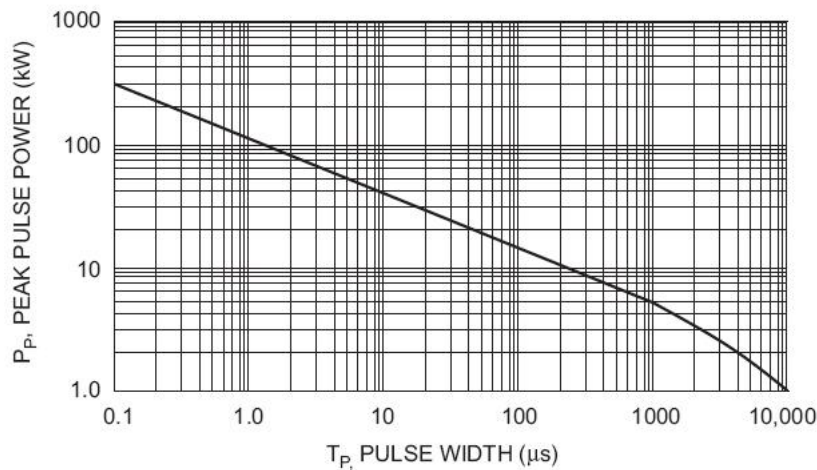


Fig. 3 Pulse Derating Curve

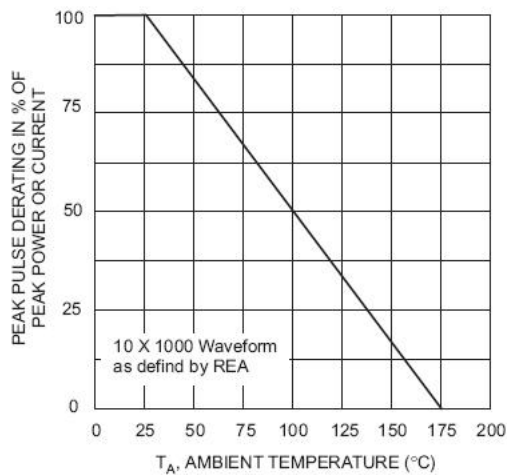


Fig. 4 Pulse Derating Curve

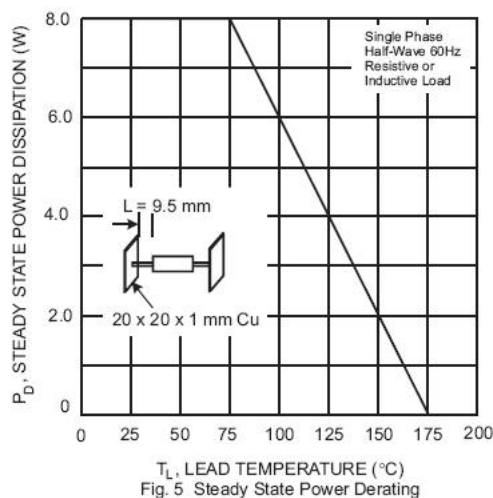
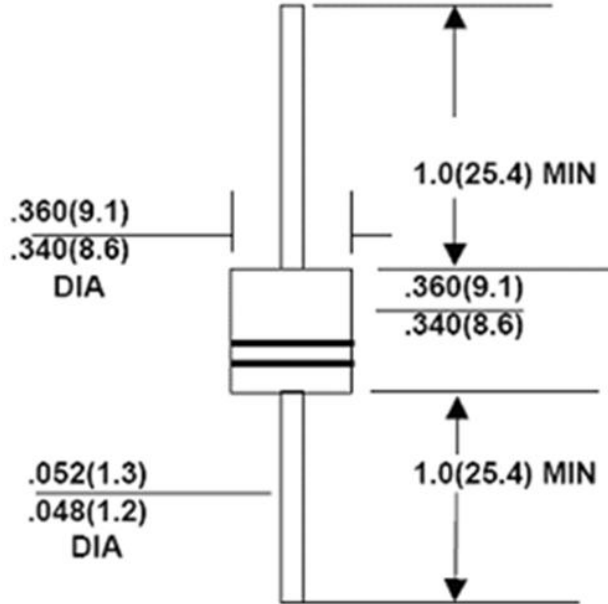


Fig. 5 Steady State Power Derating

Mechanical Dimensions P-600(Inches/Millimeters)

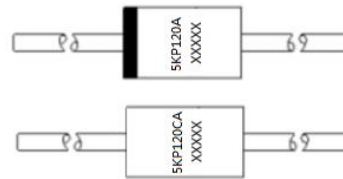


Ordering Information

Device	Package	Shipping
5KP SERIES	P-600(Pb-Free)	800pcs / Reel
5KP SERIES TR	P-600(Pb-Free)	800pcs /Reel
5KP SERIES	P-600(Pb-Free)	300pcs /Tape
5KP SERIES TA	P-600(Pb-Free)	300pcs /Tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

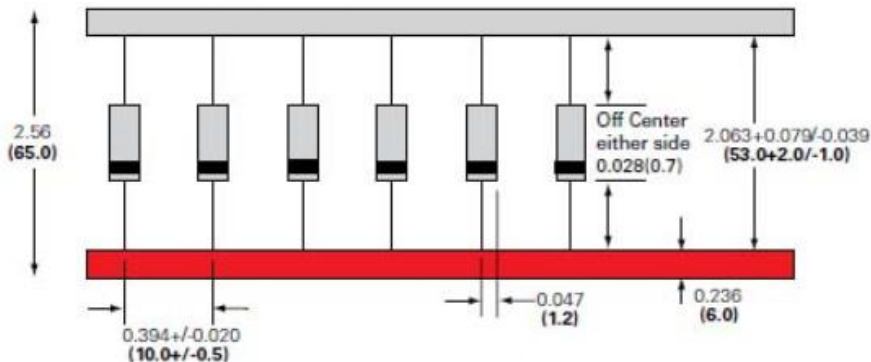


Where XXXXX is YYWWL

5KP120A/5KP120CA = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification P-600



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