

Features

- Excellent clamping capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ^(Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings and Thermal Characteristics

Parameter	Symbol	Value	Unit
Peak Pulse Power Surge Current with a 10/1000µs Waveform ^(Note 1)	I_{PPM}	See Next Table	A
Peak Pulse Power Dissipation ^(Note 1)	P_{PPM}	5000	W
Power Dissipation on Infinite Heatsink at $T_L = 75^{\circ}\text{C}$	P_D	8	W
Peak Forward Surge Current Unidirectional Only ^(Note 2)	I_{FSM}	600	A
Maximum instantaneous forward voltage at 25A for unidirectional only	V_F	3.5	V
Operating Junction Temperature Range, Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	10	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40	$^{\circ}\text{C/W}$

Note:

- 1.Non-repetitive current pulse , per Fig. 4 and derated above T_J (initial) = 25°C per Fig. 3.
- 2.Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 per minute maximum.

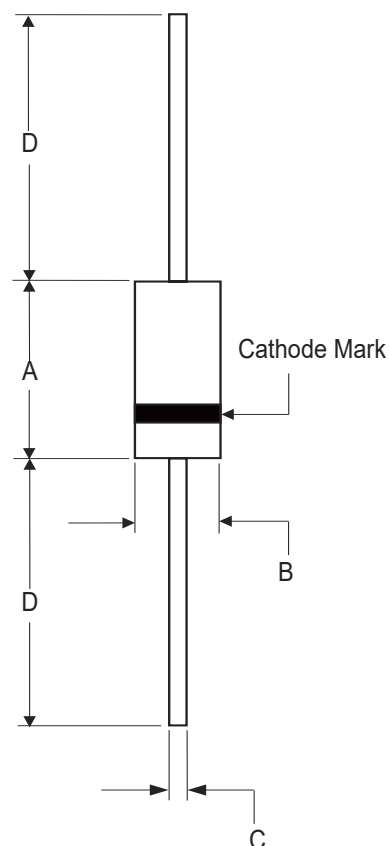
Internal Structure and Marking Code

Description	Simplified outline	Graphic symbol
Uni-directional		
Bi-directional		

XXXXX=Part Number

5000 Watts TVS
22 to 188 Volts

R-6



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.340	0.360	8.60	9.10	
B	0.340	0.360	8.60	9.10	
C	0.048	0.052	1.20	1.32	
D	1.000	-----	25.40	-----	

Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number		Working Peak Reverse Voltage	Breakdown Voltage V_{BR} @ I_T			Maximum Clamping Voltage @ I_{PP}	Maximum Reverse Surge Current	Maximum Reverse Leakage @ V_{RWM}
(Uni)	(Bi)	V_{RWM} (V)	Min (V)	Max (V)	I_T (mA)	V_C (V)	I_{PP} (A)	I_R (μ A)
5KP22AL	5KP22CAL	22	24.4	26.9	5	35.5	141.0	2
5KP24AL	5KP24CAL	24	26.7	29.5	5	38.9	129.0	2
5KP26AL	5KP26CAL	26	28.9	31.9	5	42.1	119.0	2
5KP28AL	5KP28CAL	28	31.1	34.4	5	45.4	110.0	2
5KP30AL	5KP30CAL	30	33.3	36.8	5	48.4	103.0	2
5KP33AL	5KP33CAL	33	36.7	40.6	5	53.3	93.8	2
5KP36AL	5KP36CAL	36	40.0	44.2	5	58.1	86.1	2
5KP40AL	5KP40CAL	40	44.4	49.10	5	64.5	77.5	2
5KP43AL	5KP43CAL	43	47.8	52.8	5	69.4	72.0	2
5KP45AL	5KP45CAL	45	50.0	55.3	5	72.7	68.8	2
5KP48AL	5KP48CAL	48	53.3	58.9	5	77.4	64.6	2
5KP51AL	5KP51CAL	51	56.7	62.7	5	82.4	60.7	2
5KP54AL	5KP54CAL	54	60.0	66.3	5	87.1	57.4	2
5KP58AL	5KP58CAL	58	64.4	71.2	5	94.0	53.4	2
5KP60AL	5KP60CAL	60	66.7	73.7	5	97.0	51.7	2
5KP64AL	5KP64CAL	64	71.10	78.6	5	103.0	48.5	2
5KP70AL	5KP70CAL	70	77.8	86.0	5	113.0	44.2	2
5KP75AL	5KP75CAL	75	83.3	92.10	5	121.0	41.3	2
5KP78AL	5KP78CAL	78	86.7	95.8	5	126.0	39.7	2
5KP85AL	5KP85CAL	85	94.4	104.0	5	137.0	36.5	2
5KP90AL	5KP90CAL	90	100.0	111.0	5	146.0	34.2	2
5KP100AL	5KP100CAL	100	111.0	123.0	5	162.0	30.9	2
5KP110AL	5KP110CAL	110	122.0	135.0	5	177.0	28.2	2
5KP120AL	5KP120CAL	120	133.0	147.0	5	193.0	25.9	2
5KP130AL	5KP130CAL	130	144.0	159.0	5	209.0	23.9	2
5KP150AL	5KP150CAL	150	167.0	185.0	5	243.0	20.6	2
5KP160AL	5KP160CAL	160	178.0	197.0	5	259.0	19.3	2
5KP170AL	5KP170CAL	170	189.0	209.0	5	275.0	18.2	2
5KP188AL	5KP188CAL	188	209.0	231.0	5	328.0	15.2	2

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

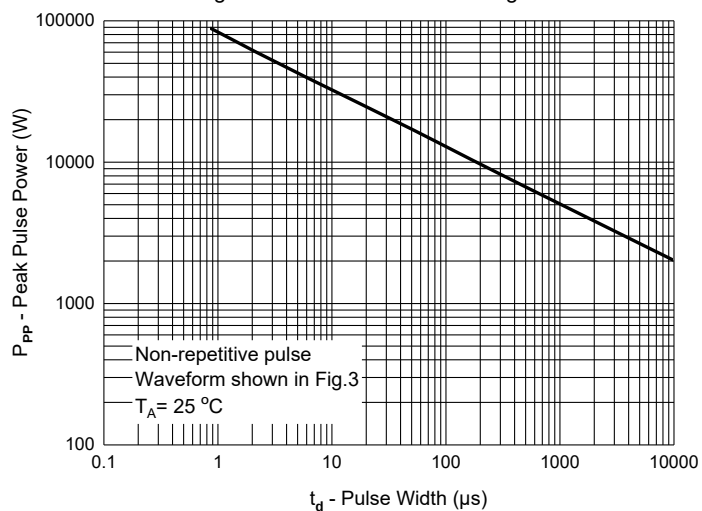


Fig. 2 - Typical Junction Capacitance

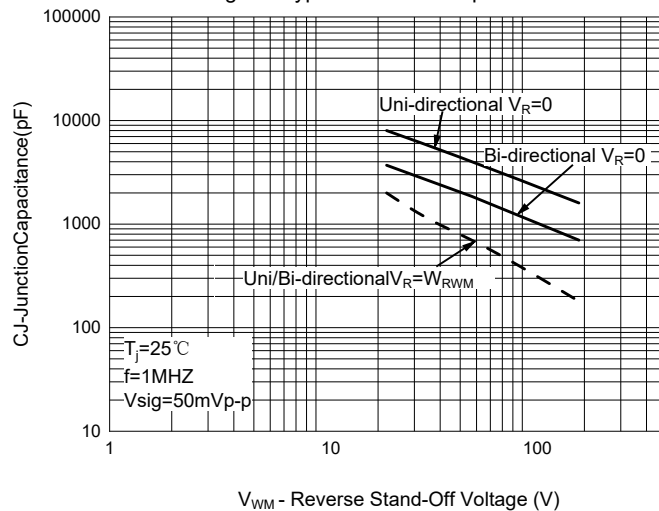


Fig. 3 - Pulse Waveform

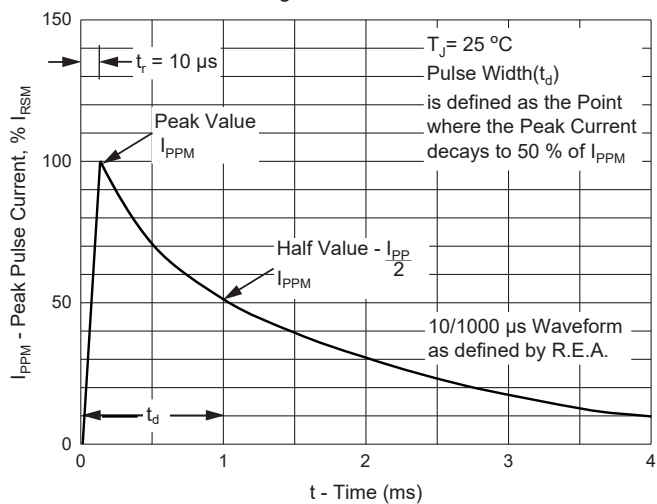
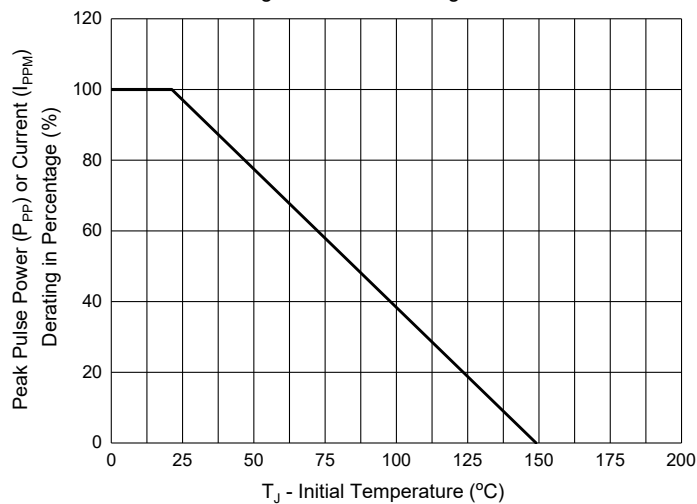


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 500pcs/Reel
(Part Number)-AP	Ammo Packing: 450pcs/Ammo Box
(Part Number)-BP	Bulk: 200pcs/Box ;4.8Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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