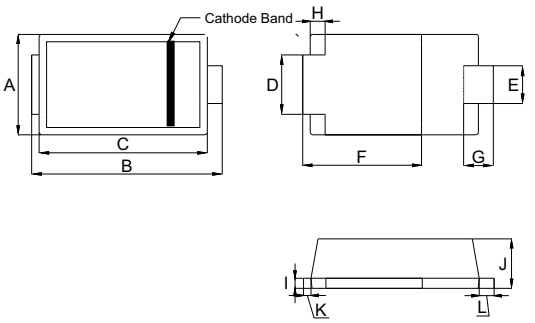
Features

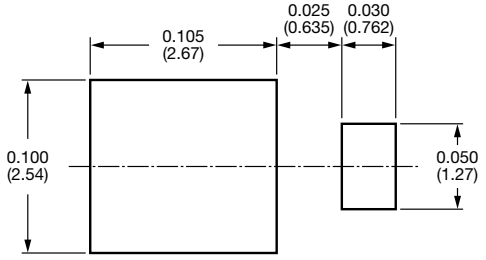
- For Surface Mount Applications
- Excellent Clamping Capability
- High Temp Soldering:260°C / 10 Seconds At Terminals
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- ESD protection of data lines in accordance with IEC 61000-4-2, 30kV(Air),30kV (Contact)

200 Watt TVS 5.0 to 100 Volts

SOD-123HL



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.074	0.086	1.88	2.18	
B	0.146	0.157	3.70	4.00	
C	0.041	0.053	3.19	3.61	
D	0.024	0.036	1.05	1.35	
E	0.087	0.102	0.61	0.91	
F	0.016	0.031	2.20	2.60	
G	0.012	0.000	0.40	0.80	
H	0.012		0.30		REF
I	0.004	0.012	0.10	0.30	
J	0.033	0.045	0.85	1.15	
K	0.000	0.012	0.00	0.30	
L	0.006	0.018	0.15	0.45	



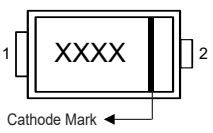
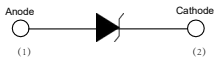
Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Surge Current with a 10/1000μs Waveform (Note 3)	I_{PPM}	See Next Table	A
Peak Pulse Power Dissipation(Note 3)	P_{PPM}	200	W
Peak Forward Surge Current Unidirectional Only (Note 4)	I_{FSM}	20	A

Note:

1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

XXXX = Marking code

Thermal Characteristics

Parameter	Symbol	Value	Unit
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	30	℃/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80	℃/W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	20	℃/W

Note:
1.Mounted on 0.2"x0.2"(5.0mm x 5.0mm) copper pads to each terminal.

Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Working Peak Reverse Voltage	Breakdown Voltage VBR @IT			Maximun Clamping Voltage @IPP	Maximum Reverse Surge Current	Maximum Reverse Leakage @VRWM	Device Marking Code
(Uni)	VRWM(V)	Min (V)	Max (V)	IT (mA)	VC(V)	IPP(A)	IR(μA)	Uni
SMH5.0A	5.0	6.40	7.07	10	9.2	21.74	400.0	5.0A
SMH6.0A	6.0	6.67	7.37	10	10.3	19.42	400.0	6.0A
SMH6.5A	6.5	7.22	7.98	10	11.2	17.86	250.0	6.5A
SMH7.0A	7.0	7.78	8.60	10	12.0	16.67	100.0	7.0A
SMH7.5A	7.5	8.33	9.21	1	12.9	15.50	50.0	7.5A
SMH8.0A	8.0	8.89	9.83	1	13.6	14.71	25.0	8.0A
SMH8.5A	8.5	9.44	10.40	1	14.4	13.89	10.0	8.5A
SMH9.0A	9.0	10.00	11.10	1	15.4	12.99	5.0	9.0A
SMH10A	10.0	11.10	12.30	1	17.0	11.76	2.5	10A
SMH11A	11.0	12.20	13.50	1	18.2	10.99	2.5	11A
SMH12A	12.0	13.30	14.70	1	19.9	10.05	2.5	12A
SMH13A	13.0	14.40	15.90	1	21.5	9.30	1.0	13A
SMH14A	14.0	15.60	17.20	1	23.2	8.62	1.0	14A
SMH15A	15.0	16.70	18.50	1	24.4	8.20	1.0	15A
SMH16A	16.0	17.80	19.70	1	26.0	7.69	1.0	16A
SMH17A	17.0	18.90	20.90	1	27.6	7.25	1.0	17A
SMH18A	18.0	20.00	22.10	1	29.2	6.85	1.0	18A
SMH19A	19.0	21.10	23.30	1	30.6	6.54	1.0	19A
SMH20A	20.0	22.20	24.50	1	32.4	6.17	1.0	20A
SMH22A	22.0	24.40	26.90	1	35.5	5.63	1.0	22A
SMH24A	24.0	26.70	29.50	1	38.9	5.14	1.0	24A
SMH26A	26.0	28.90	31.90	1	42.1	4.75	1.0	26A
SMH28A	28.0	31.10	34.40	1	45.4	4.41	1.0	28A
SMH30A	30.0	33.30	36.80	1	48.4	4.13	1.0	30A
SMH33A	33.0	36.70	40.60	1	53.3	3.75	1.0	33A
SMH36A	36.0	40.00	44.20	1	58.1	3.44	1.0	36A
SMH40A	40.0	44.40	49.10	1	64.5	3.10	1.0	40A
SMH43A	43.0	47.80	52.80	1	69.4	2.88	1.0	43A
SMH45A	45.0	50.00	55.30	1	72.7	2.75	1.0	45A
SMH48A	48.0	53.30	58.90	1	77.4	2.58	1.0	48A
SMH51A	51.0	56.70	62.70	1	82.4	2.43	1.0	51A
SMH54A	54.0	60.00	66.30	1	87.1	2.30	1.0	54A
SMH58A	58.0	64.40	71.20	1	93.6	2.14	1.0	58A
SMH60A	60.0	66.70	73.70	1	96.8	2.07	1.0	60A
SMH64A	64.0	71.10	78.60	1	103.0	1.94	1.0	64A
SMH70A	70.0	77.80	86.00	1	113.0	1.77	1.0	70A
SMH75A	75.0	83.30	92.10	1	121.0	1.65	1.0	75A
SMH78A	78.0	86.70	95.80	1	126.0	1.59	1.0	78A
SMH80A	80.0	88.80	97.60	1	129.0	1.55	1.0	80A
SMH85A	85.0	94.40	104.00	1	137.0	1.46	1.0	85A
SMH90A	90.0	100.00	111.00	1	146.0	1.37	1.0	90A
SMH100A	100.0	111.00	123.00	1	162.0	1.23	1.0	100A

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

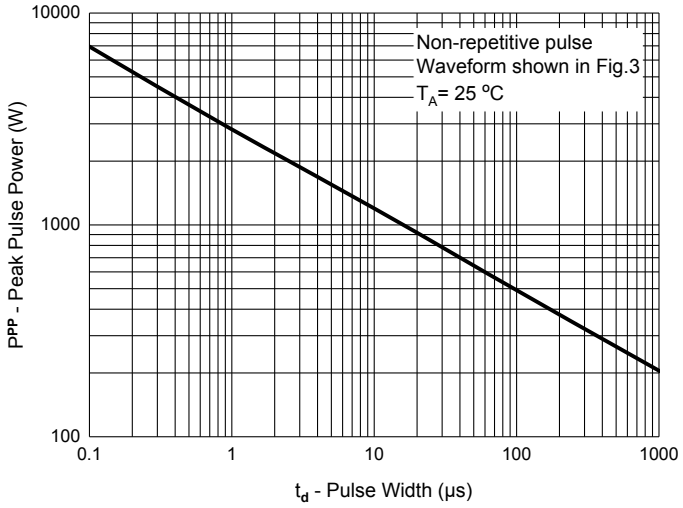


Fig. 2 - Typical Junction Capacitance

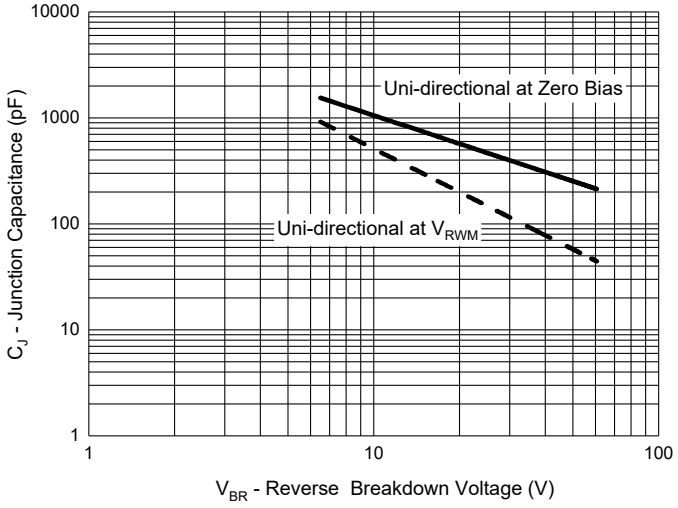


Fig. 3 - Pulse Waveform

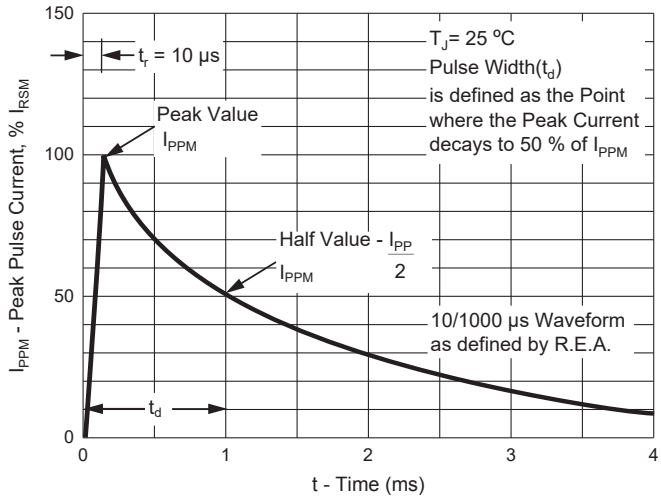
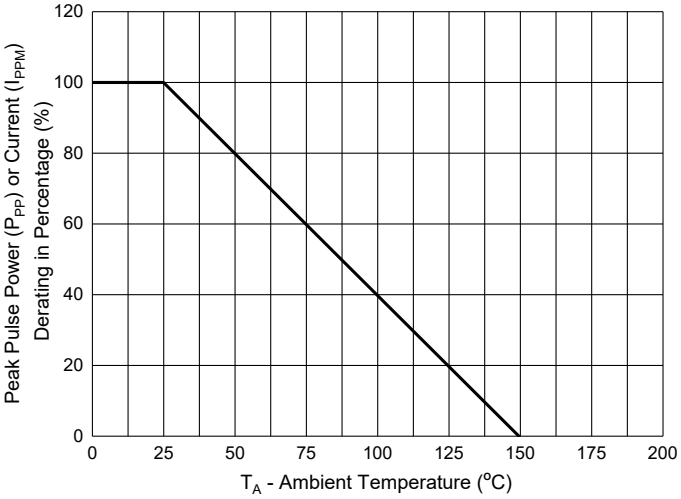


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:2.5Kpcs/Reel