

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)

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}	400	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.

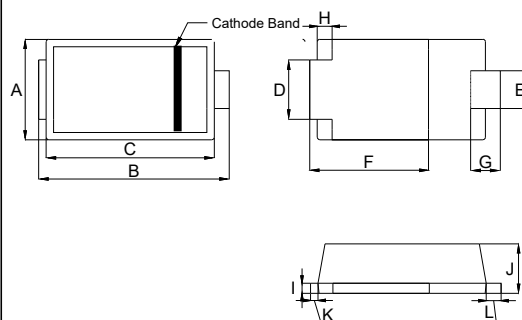
Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional	Cathode Mark	Anode (1) Cathode (2)

XXXX = Marking code

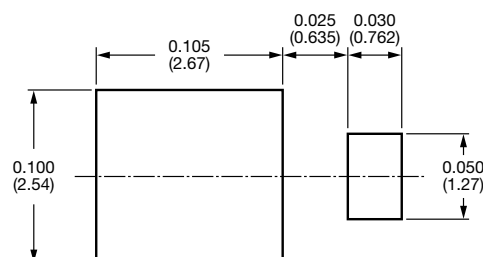
400 Watt TVS
5.0 to 100
Volts

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	



Thermal Characteristics

Parameter	Symbol	Value	Unit
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	30	°C/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	80	°C/W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	15	°C/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			Maximum 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
SM4H5.0A	5	6.4	7.07	10	9.2	43.38	800	E5.0A
SM4H6.0A	6	6.67	7.37	10	10.3	38.83	800	E6.0A
SM4H6.5A	6.5	7.22	7.98	10	11.2	35.71	500	E6.5A
SM4H7.0A	7	7.78	8.60	10	12.0	33.33	200	E7.0A
SM4H7.5A	7.5	8.33	9.21	1	12.9	31.01	100	E7.5A
SM4H8.0A	8	8.89	9.83	1	13.6	29.41	50	E8.0A
SM4H8.5A	8.5	9.44	10.40	1	14.4	27.78	10	E8.5A
SM4H9.0A	9	10.00	11.10	1	15.4	25.97	5	E9.0A
SM4H10A	10	11.10	12.30	1	17.0	23.52	2.5	E10A
SM4H11A	11	12.20	13.50	1	18.2	21.98	2.5	E11A
SM4H12A	12	13.30	14.7	1	19.9	20.10	2.5	E12A
SM4H13A	13	14.40	15.90	1	20.0	18.60	1	E13A
SM4H14A	14	15.60	17.20	1	23.2	17.24	1	E14A
SM4H15A	15	16.70	18.50	1	24.4	16.40	1	E15A
SM4H16A	16	17.80	19.70	1	26.0	15.38	1	E16A
SM4H17A	17	18.90	20.90	1	27.6	14.50	1	E17A
SM4H18A	18	20.00	22.10	1	29.2	13.70	1	E18A
SM4H19A	19	21.10	23.30	1	30.6	13.08	1	E19A
SM4H20A	20	22.20	24.50	1	32.4	12.34	1	E20A
SM4H22A	22	24.40	26.90	1	35.5	11.26	1	E22A
SM4H24A	24	26.70	29.50	1	38.9	10.28	1	E24A
SM4H26A	26	28.90	31.90	1	42.1	9.50	1	E26A
SM4H28A	28	31.10	34.40	1	45.4	8.82	1	E28A
SM4H30A	30	33.30	36.80	1	48.4	8.26	1	E30A
SM4H33A	33	36.70	40.60	1	53.3	7.50	1	E33A
SM4H36A	36	40.00	44.20	1	58.1	6.88	1	E36A
SM4H40A	40	44.40	49.10	1	64.5	6.20	1	E40A
SM4H43A	43	47.80	52.80	1	69.4	5.76	1	E43A
SM4H45A	45	50.00	55.30	1	72.7	5.50	1	E45A
SM4H48A	48	53.30	58.90	1	77.4	5.16	1	E48A
SM4H51A	51	56.70	62.70	1	82.4	4.86	1	E51A
SM4H54A	54	60.00	66.30	1	87.1	4.60	1	E54A
SM4H58A	58	64.40	71.20	1	93.6	4.28	1	E58A
SM4H60A	60	66.70	73.70	1	96.8	4.14	1	E60A
SM4H64A	64	71.10	78.60	1	103.0	3.88	1	E64A
SM4H70A	70	77.80	86.00	1	113.0	3.54	1	E70A
SM4H75A	75	83.30	92.10	1	121.0	3.30	1	E75A
SM4H78A	78	86.70	95.80	1	126.0	3.18	1	E78A
SM4H80A	80	88.80	97.60	1	129.0	3.10	1	E80A
SM4H85A	85	94.40	104.00	1	137.0	2.92	1	E85A
SM4H90A	90	100.00	111.00	1	146.0	2.74	1	E90A
SM4H100A	100	111.00	123.00	1	162.0	2.46	1	E100A

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

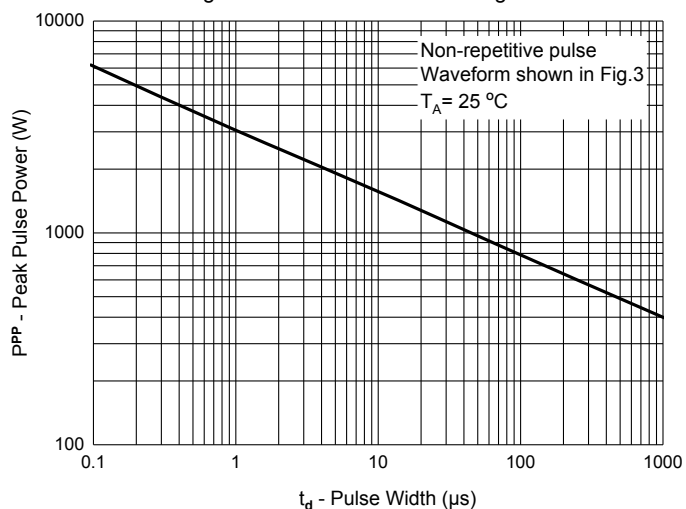


Fig. 2 - Typical Junction Capacitance

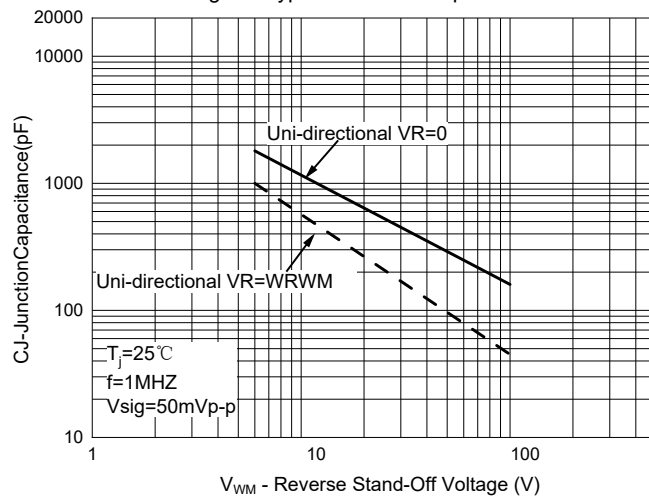


Fig. 3 - Pulse Waveform

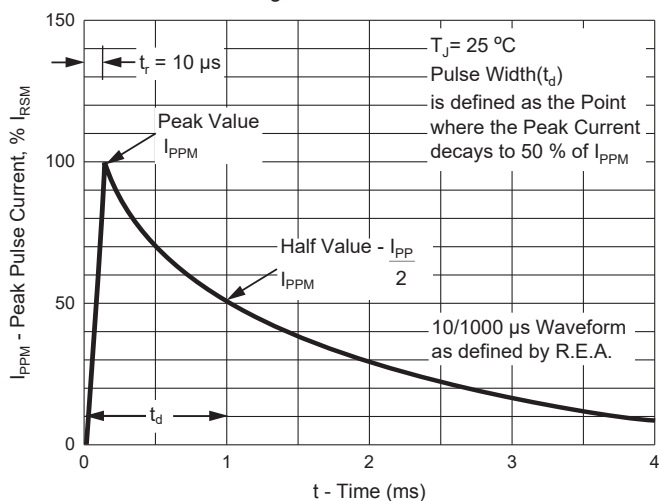
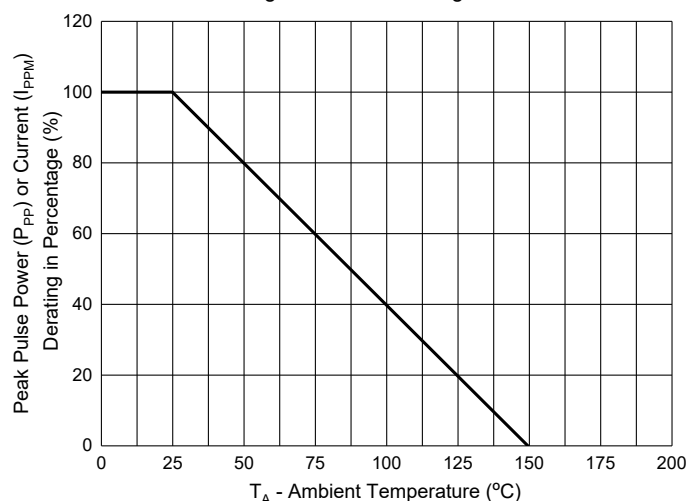


Fig. 2 - Pulse Derating Curve



Ordering Information

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

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