

Features

- For surface mounted applications
- Low Profile Package
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Surge Current with a 10/1000µs Waveform (Note 3)	IPPM	See Next Table	A
Peak Pulse Power Dissipation (Note 3)	PPPM	150	W
Power Dissipation on Infinite Heatsink at TL= 120°C	PD	1	W
Maximum instantaneous forward Voltage at IF=1A	VF	1.2	V

Thermal Characteristics(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
Operating Junction Temperature Range	TJ	-55 to +150	°C
Storage Temperature Range	TSTG	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	RθJL	30	°C/W
Typical Thermal Resistance Junction to Ambient	RθJA	250	°C/W

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.
3. Non-repetitive current pulse, per Fig.3 and derated above TA=25 °C per Fig.4.
4. 8.3ms, single half sine wave duty cycle = 4 pulses per Minutes maximum.
5. Mounted on P.C.B. with 5mm*5mm copper pad areas.

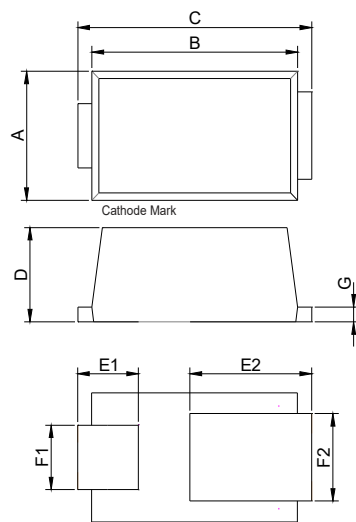
Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

XXXX = Marking code

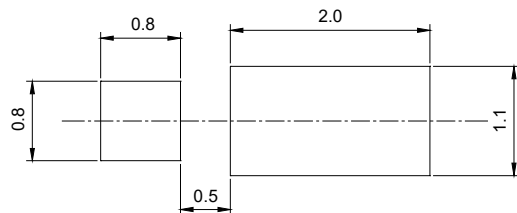
150 Watt TVS
5.0 to 90
Volts

SOD-323HE-B



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.047	0.055	1.20	1.40	
B	0.083	0.091	2.10	2.30	
C	0.091	0.106	2.30	2.70	
D	0.035	0.039	0.90	1.00	
E1	0.022	0.030	0.55	0.75	
E2	0.043	0.059	1.10	1.50	
F1	0.022	0.030	0.55	0.75	
F2	0.031	0.039	0.78	0.98	
G	0.005	0.011	0.12	0.27	

Suggested Solder Pad Layout(mm)



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}	Device Marking Code
	$V_{RWM}(V)$	Min (V)	Max (V)	I_T (mA)	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$	
SMHE5.0A	5.0	6.40	7.07	10	9.2	16.3	400	AE
SMHE6.0A	6.0	6.67	7.37	10	10.3	14.6	400	AG
SMHE6.5A	6.5	7.22	7.98	10	11.2	13.4	250	AK
SMHE7.0A	7.0	7.78	8.60	10	12.0	12.5	100	AM
SMHE7.5A	7.5	8.33	9.21	1	12.9	11.6	50	AP
SMHE8.0A	8.0	8.89	9.83	1	13.6	11.0	25	AR
SMHE8.5A	8.5	9.44	10.40	1	14.4	10.4	10	AT
SMHE9.0A	9.0	10.00	11.10	1	15.4	9.7	5	AV
SMHE10A	10.0	11.10	12.30	1	17.0	8.8	2.5	AX
SMHE11A	11.0	12.20	13.50	1	18.2	8.2	2.5	AZ
SMHE12A	12.0	13.30	14.70	1	19.9	7.5	2.5	BE
SMHE13A	13.0	14.40	15.90	1	21.5	7.0	1	BG
SMHE14A	14.0	15.60	17.20	1	23.2	6.5	1	BK
SMHE15A	15.0	16.70	18.50	1	24.4	6.2	1	BM
SMHE16A	16.0	17.80	19.70	1	26.0	5.8	1	BP
SMHE17A	17.0	18.90	20.90	1	27.6	5.4	1	BR
SMHE18A	18.0	20.00	22.10	1	29.2	5.1	1	BT
SMHE19A	19.0	21.10	23.30	1	30.6	4.6	1	BV
SMHE20A	20.0	22.20	24.50	1	32.4	4.6	1	BX
SMHE22A	22.0	24.40	26.90	1	35.5	4.2	1	BZ
SMHE24A	24.0	26.70	29.50	1	38.9	3.9	1	CE
SMHE26A	26.0	28.90	31.90	1	42.1	3.6	1	CG
SMHE28A	28.0	31.10	34.40	1	45.4	3.3	1	CK
SMHE30A	30.0	33.30	36.80	1	48.4	3.1	1	CM
SMHE33A	33.0	36.70	40.60	1	53.3	2.8	1	CP
SMHE36A	36.0	40.00	44.20	1	58.1	2.6	1	CR
SMHE40A	40.0	44.40	49.10	1	64.5	2.3	1	CT
SMHE43A	43.0	47.80	52.80	1	69.4	2.2	1	CV
SMHE45A	45.0	50.00	55.30	1	72.7	2.1	1	CX
SMHE48A	48.0	53.30	58.90	1	77.4	1.9	1	CZ
SMHE51A	51.0	56.70	62.70	1	82.4	1.8	1	DE
SMHE54A	54.0	60.00	66.30	1	87.1	1.7	1	DG
SMHE58A	58.0	64.40	71.20	1	93.6	1.6	1	DK
SMHE60A	60.0	66.70	73.70	1	96.8	1.5	1	DM
SMHE64A	64.0	71.10	78.60	1	103.0	1.5	1	DP
SMHE70A	70.0	77.80	86.00	1	113.0	1.3	1	DR
SMHE75A	75.0	83.30	92.10	1	121.0	1.2	1	DT
SMHE78A	78.0	86.70	95.80	1	126.0	1.2	1	DV
SMHE80A	80.0	88.80	97.60	1	129.0	1.2	1	DX
SMHE85A	85.0	94.40	104.00	1	137.0	1.1	1	DZ
SMHE90A	90.0	100.00	111.00	1	146.0	1.0	1	EG

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

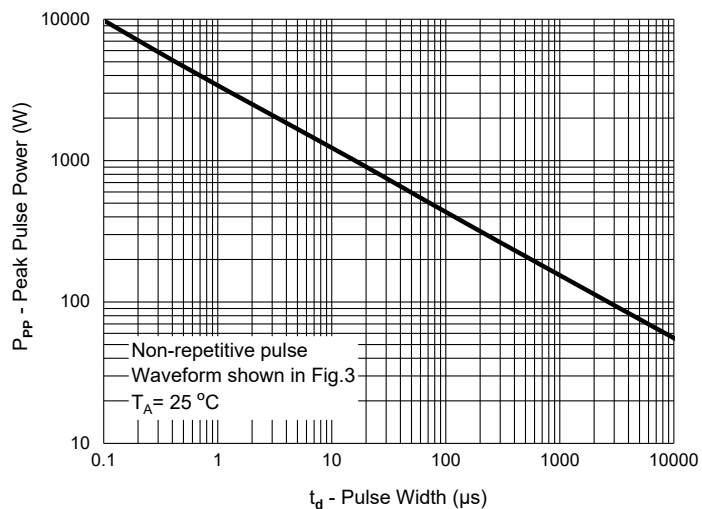


Fig. 2 - Typical Junction Capacitance

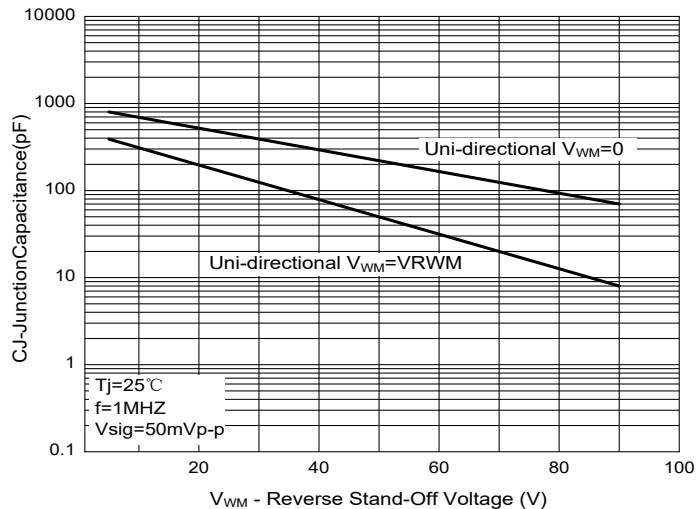


Fig. 3 - Pulse Waveform

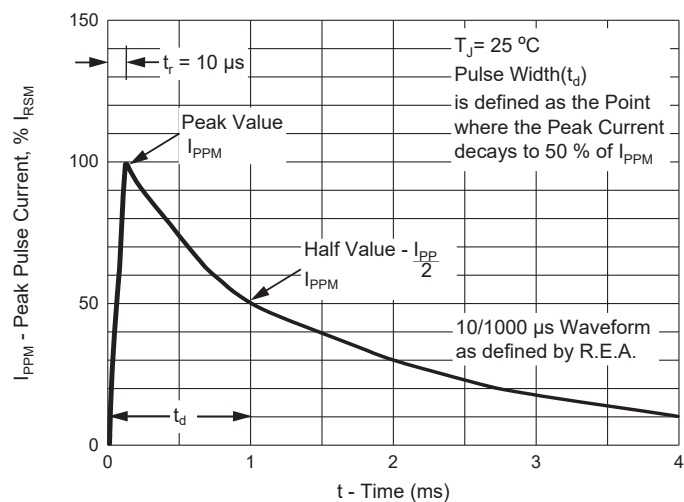
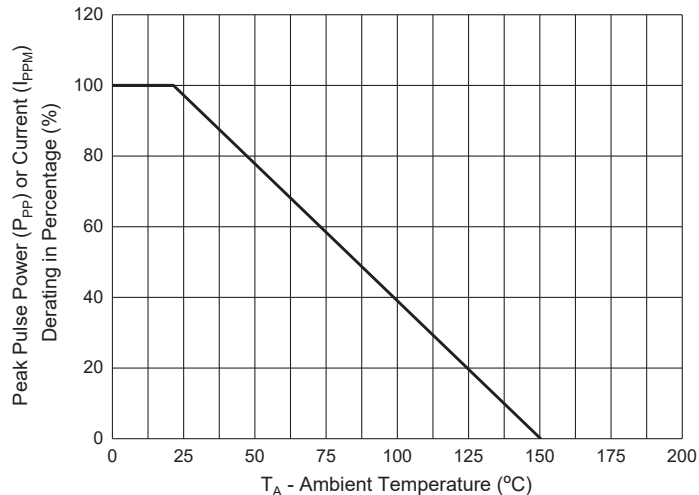


Fig. 4 - Pulse Derating Curve



Ordering Information

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp** . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp** . and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[SMHE8.5A-TP](#) [SMHE6.5A-TP](#) [SMHE20A-TP](#) [SMHE48A-TP](#) [SMHE60A-TP](#) [SMHE8.0A-TP](#) [SMHE7.5A-TP](#)
[SMHE58A-TP](#) [SMHE80A-TP](#) [SMHE17A-TP](#) [SMHE9.0A-TP](#) [SMHE19A-TP](#) [SMHE51A-TP](#) [SMHE90A-TP](#) [SMHE10A-](#)
[TP](#) [SMHE30A-TP](#) [SMHE36A-TP](#) [SMHE18A-TP](#) [SMHE5.0A-TP](#) [SMHE12A-TP](#) [SMHE22A-TP](#) [SMHE11A-TP](#)
[SMHE15A-TP](#) [SMHE24A-TP](#) [SMHE6.0A-TP](#) [SMHE78A-TP](#) [SMHE28A-TP](#) [SMHE16A-TP](#) [SMHE54A-TP](#) [SMHE70A-](#)
[TP](#) [SMHE33A-TP](#) [SMHE75A-TP](#) [SMHE14A-TP](#) [SMHE26A-TP](#) [SMHE85A-TP](#) [SMHE13A-TP](#) [SMHE43A-TP](#)
[SMHE7.0A-TP](#) [SMHE40A-TP](#) [SMHE64A-TP](#) [SMHE45A-TP](#)