	E480232

Features

- AEC-Q101 Qualified
- Low Leakage
- Very Fast Response Time
- Glass Passivated Junction
- Excellent Clamping Capability
- 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)
- For Bidirectional Devices Add “C” To The Suffix of The Part Number: i.e.5.0SMLJ10CAHE3 for 5% Tolerance

Mechanical Data

- Polarity: Color Band Denotes Positive End (cathode) Except Bidirectional

Maximum Ratings

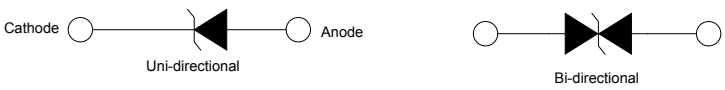
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

Peak Pulse Power Surge Current on 10/1000μs Waveform	I_{PPM}	See the Table	Note 3
Peak Pulse Power Dissipation on 10/1000μs Waveform	P_{PPM}	5000W(Min)	Note 3
Power Dissipationon infinite heat sink	P_D	6.5W	T_L = 75°C.

Note:

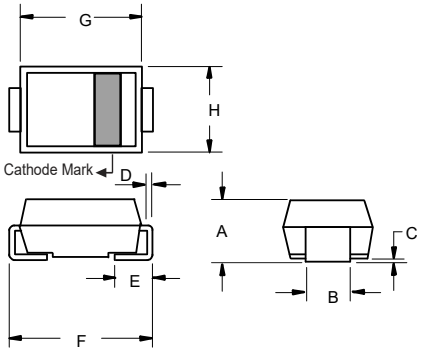
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Non-repetitive current pulse per Fig.3 and derated above T_A= 25 °C per Fig.4

Pin Configuration:



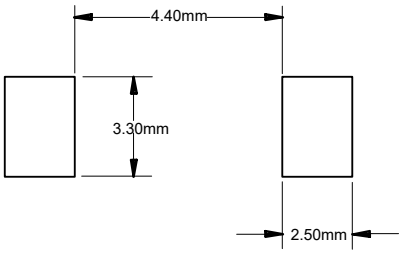
5000 Watt TVS
10 to 58 Volts

SMC (DO-214AB) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

Suggested Solder Pad Layout



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	
Uni	Bi	V_{RWM}(V)	Min (V)	Max (V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(μA)	Uni	Bi
5.0SMLJ10AHE3	5.0SMLJ10CAHE3	10.0	11.10	12.30	1	17.0	294.12	5	5SAE	5DAE
5.0SMLJ11AHE3	5.0SMLJ11CAHE3	11.0	12.20	13.50	1	18.2	275.0	2	5SAF	5DAF
5.0SMLJ12AHE3	5.0SMLJ12CAHE3	12.0	13.30	14.70	1	19.9	252.0	2	5SAG	5DAG
5.0SMLJ13AHE3	5.0SMLJ13CAHE3	13.0	14.40	15.90	1	21.5	233.0	2	5SAK	5DAK
5.0SMLJ14AHE3	5.0SMLJ14CAHE3	14.0	15.60	17.20	1	23.2	216.0	2	5SAM	5DAM
5.0SMLJ15AHE3	5.0SMLJ15CAHE3	15.0	16.70	18.50	1	24.4	205.0	2	5SAP	5DAP
5.0SMLJ16AHE3	5.0SMLJ16CAHE3	16.0	17.80	19.70	1	26.0	193.0	2	5SAR	5DAR
5.0SMLJ17AHE3	5.0SMLJ17CAHE3	17.0	18.90	20.90	1	27.6	181.0	2	5SAT	5DAT
5.0SMLJ18AHE3	5.0SMLJ18CAHE3	18.0	20.00	22.10	1	29.2	172.0	2	5SAV	5DAV
5.0SMLJ19AHE3	5.0SMLJ19CAHE3	19.0	21.10	23.30	1	30.8	162.4	2	5SAX	5DAX
5.0SMLJ20AHE3	5.0SMLJ20CAHE3	20.0	22.20	24.50	1	32.4	155.0	2	5SAZ	5DAZ
5.0SMLJ22AHE3	5.0SMLJ22CAHE3	22.0	24.40	26.90	1	35.5	141.0	2	5SBE	5DBE
5.0SMLJ24AHE3	5.0SMLJ24CAHE3	24.0	26.70	29.50	1	38.9	129.0	2	5SBF	5DBF
5.0SMLJ26AHE3	5.0SMLJ26CAHE3	26.0	28.90	31.90	1	42.1	119.0	2	5SBG	5DBG/5BFE
5.0SMLJ28AHE3	5.0SMLJ28CAHE3	28.0	31.10	34.40	1	45.4	110.0	2	5SBK	5DBK
5.0SMLJ30AHE3	5.0SMLJ30CAHE3	30.0	33.30	36.80	1	48.4	103.0	2	5SBM	5DBM
5.0SMLJ33AHE3	5.0SMLJ33CAHE3	33.0	36.70	40.60	1	53.3	93.9	2	5SBP	5DBP
5.0SMLJ36AHE3	5.0SMLJ36CAHE3	36.0	40.00	44.20	1	58.1	86.1	2	5SBR	5DBR
5.0SMLJ40AHE3	5.0SMLJ40CAHE3	40.0	44.40	49.10	1	64.5	77.6	2	5SBT	5DBT
5.0SMLJ43AHE3	5.0SMLJ43CAHE3	43.0	47.80	52.80	1	69.4	72.1	2	5SBV	5DBV
5.0SMLJ45AHE3	5.0SMLJ45CAHE3	45.0	50.00	55.30	1	72.7	68.8	2	5SBX	5DBX
5.0SMLJ48AHE3	5.0SMLJ48CAHE3	48.0	53.30	58.90	1	77.4	64.7	2	5SBZ	5DBZ
5.0SMLJ51AHE3	5.0SMLJ51CAHE3	51.0	56.70	62.70	1	82.4	60.7	2	5SCE	5DCE
5.0SMLJ54AHE3	5.0SMLJ54CAHE3	54.0	60.00	66.30	1	87.1	57.5	2	5SCF	5DCF
5.0SMLJ58AHE3	5.0SMLJ58CAHE3	58.0	64.40	71.20	1	93.6	53.5	2	5SCG	5DCG

Note:
4. Add suffix 'C ' after part number to specify Bi-directional devices
5. For Bi-Directional devices having V_R of 10 volts , the I_R limit is double

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

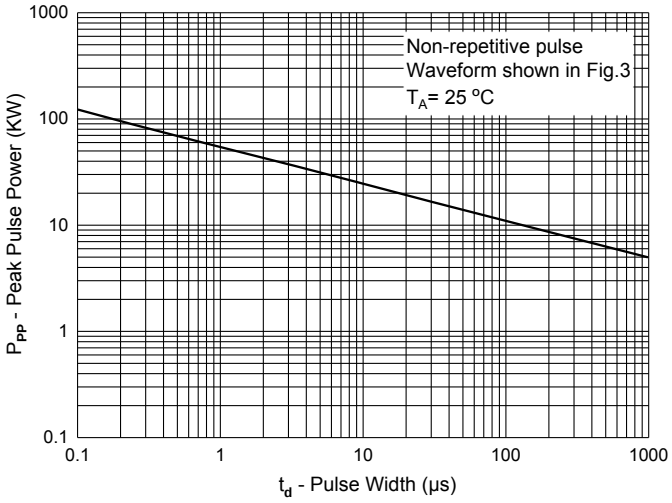


Fig. 2 - Typical Junction Capacitance

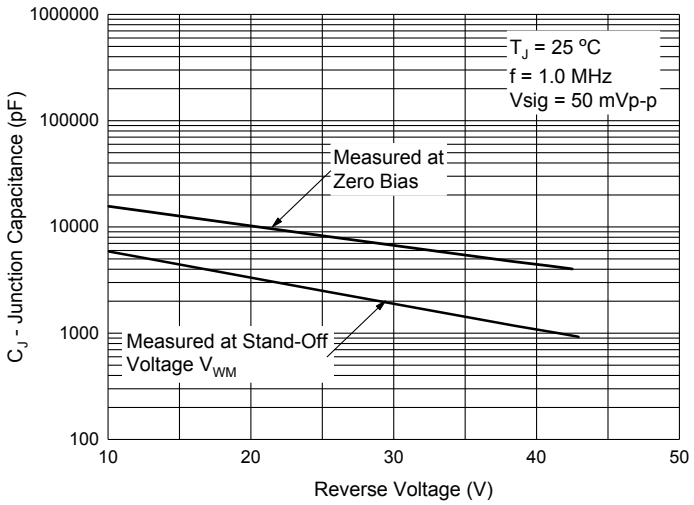


Fig. 3 - Pulse Waveform

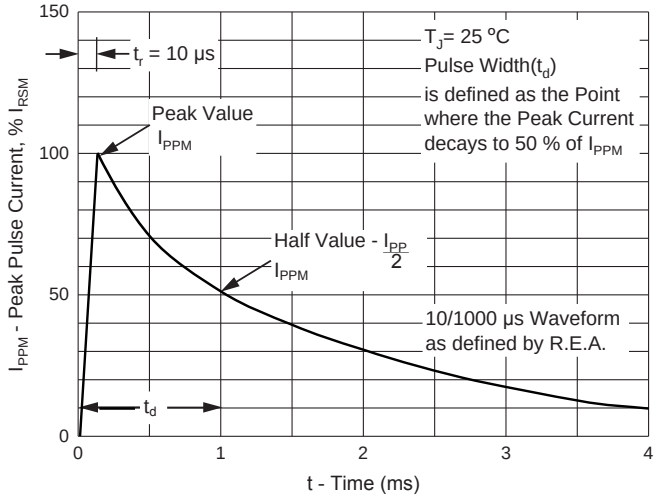


Fig. 4 - Pulse Derating Curve