



E480232

Features

- AEC-Q101 Qualified
- For Surface Mount Application in Order to Optimize Board Space
- Built-in Strain Relief
- Glass Passivated Junction
- Excellent Clamping Capability
- Repetition Rate(duty cycle):0.5%
- Fast Response Time: Typical Less Than 1ps From 0V to BV Min
- Typical I_D Less Than $1\mu A$ above 10V
- High Temperature Soldering: 260°C/10 Seconds at Terminals
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- For Bidirectional Devices Add "C" To The Suffix of The Part Number: i.e.SMLJ10CAHE3A for 5% Tolerance
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Mechanical Data

- Polarity: Color Band Denotes Positive End(Cathode) Except Bi-directional Types
- Weight: 0.007 ounce, 0.21 gram
- Manufacturing Code Added for Better Tracking
- Standard Packaging: 16mm Tape Per (EIA 481).
- Terminals: Solderable Per MIL-STD-750, Method 2026

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 17.5°C/W Junction to Lead
- Thermal Resistance: 75°C/W Junction to Ambient

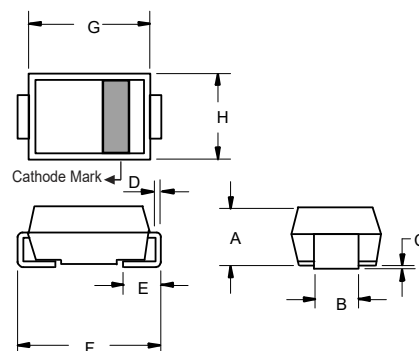
Electrical Characteristics @ 25°C Unless Otherwise Specified

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}	3000W(Min)	Note 3,4
Power Dissipationon infinite heat sink	P_D	6.5W	$T_L = 50^\circ C$.
Peak Forward Surge Current	I_{FSM}	300A	8.3 ms Single Half Sine-Wave Unidirectional Only

- 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 $T_A=25^\circ C$ per Fig.4.
4. Mounted on 8.0mm² copper pads to each terminal.

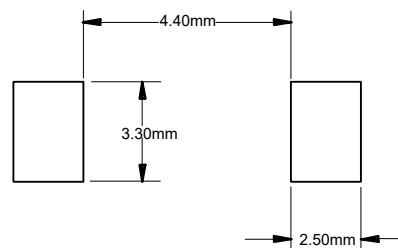
3000 Watt TVS
10 to 48 Volts

SMC (DO-214AB)
(LEAD FRAME)



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	Reverse Stand -Off Voltage	Breakdown Voltage $V_{BR}(V)$		Test Current	Max. Clamping Voltage @ I_{PP}	Peak Pulse Current	Reverse Leakage Current@ V_{WM}	Marking Code
	$V_{WM}(V)$	Min	Max	$I_T(mA)$	$V_C(V)$	$I_{PP}(A)$	$I_D(\mu A)$	
SMLJ10AHE3A	10	11.1	12.3	1	17.0	176.4	5	PDX
SMLJ11AHE3A	11	12.2	13.5	1	18.2	164.8	5	PDZ
SMLJ12AHE3A	12	13.3	14.7	1	19.9	150.6	2	PEE
SMLJ13AHE3A	13	14.4	15.9	1	21.5	139.4	2	PEG
SMLJ14AHE3A	14	15.6	17.2	1	23.2	129.4	1	PEK
SMLJ15AHE3A	15	16.7	18.5	1	24.4	123.0	1	PEM
SMLJ16AHE3A	16	17.8	19.7	1	26.0	115.4	1	PEP
SMLJ17AHE3A	17	18.9	20.9	1	27.6	106.6	1	PER
SMLJ18AHE3A	18	20.0	22.1	1	29.2	102.8	1	PET
SMLJ20AHE3A	20	22.2	24.5	1	32.4	92.6	1	PEV
SMLJ22AHE3A	22	24.4	26.9	1	35.5	84.4	1	PEX
SMLJ24AHE3A	24	26.7	29.5	1	38.9	77.2	1	PEZ
SMLJ26AHE3A	26	28.9	31.9	1	42.1	71.2	1	PFE
SMLJ28AHE3A	28	31.1	34.4	1	45.4	66.0	1	PFG
SMLJ30AHE3A	30	33.3	36.8	1	48.4	62.0	1	PFK
SMLJ33AHE3A	33	36.7	40.6	1	53.3	56.2	1	PFM
SMLJ36AHE3A	36	40.0	44.2	1	58.1	51.6	1	PFP
SMLJ40AHE3A	40	44.4	49.1	1	64.5	46.4	1	PFR
SMLJ43AHE3A	43	47.8	52.8	1	69.4	43.2	1	PFT
SMLJ45AHE3A	45	50	55.3	1	72.7	41.3	1	PFV
SMLJ48AHE3A	48	53.3	58.9	1	77.4	38.8	1	PFX
SMLJ10CAHE3A	10	11.1	12.3	1	17.0	176.4	5	DDX
SMLJ11CAHE3A	11	12.2	13.5	1	18.2	164.8	5	DDZ
SMLJ12CAHE3A	12	13.3	14.7	1	19.9	150.6	2	DEE
SMLJ13CAHE3A	13	14.4	15.9	1	21.5	139.4	2	DEG
SMLJ14CAHE3A	14	15.6	17.2	1	23.2	129.4	1	DEK
SMLJ15CAHE3A	15	16.7	18.5	1	24.4	123.0	1	DEM
SMLJ16CAHE3A	16	17.8	19.7	1	26.0	115.4	1	DEP
SMLJ17CAHE3A	17	18.9	20.9	1	27.6	106.6	1	DER
SMLJ18CAHE3A	18	20.0	22.1	1	29.2	102.8	1	DET
SMLJ20CAHE3A	20	22.2	24.5	1	32.4	92.6	1	DEV
SMLJ22CAHE3A	22	24.4	26.9	1	35.5	84.4	1	DEX
SMLJ24CAHE3A	24	26.7	29.5	1	38.9	77.2	1	DEZ
SMLJ26CAHE3A	26	28.9	31.9	1	42.1	71.2	1	DFE
SMLJ28CAHE3A	28	31.1	34.4	1	45.4	66.0	1	DFG
SMLJ30CAHE3A	30	33.3	36.8	1	48.4	62.0	1	DFK
SMLJ33CAHE3A	33	36.7	40.6	1	53.3	56.2	1	DFM
SMLJ36CAHE3A	36	40.0	44.2	1	58.1	51.6	1	DFP
SMLJ40CAHE3A	40	44.4	49.1	1	64.5	46.4	1	DFR
SMLJ43CAHE3A	43	47.8	52.8	1	69.4	43.2	1	DFT
SMLJ45CAHE3A	45	50	55.3	1	72.7	41.3	1	DFV
SMLJ48CAHE3A	48	53.3	58.9	1	77.4	38.8	1	DFX

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

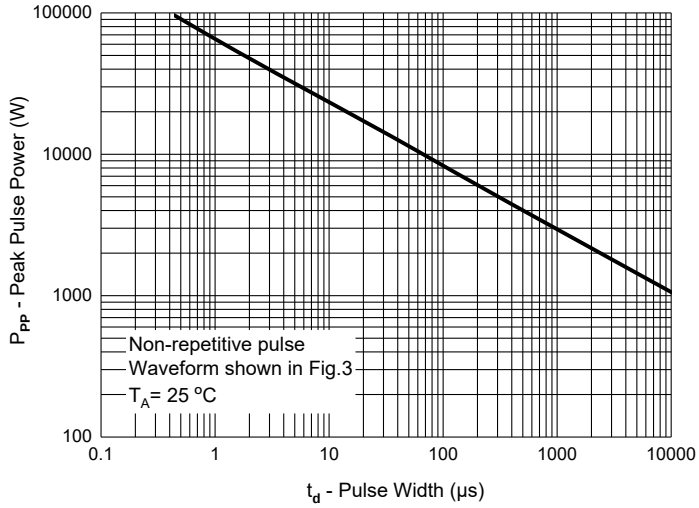


Fig. 2 - Typical Junction Capacitance

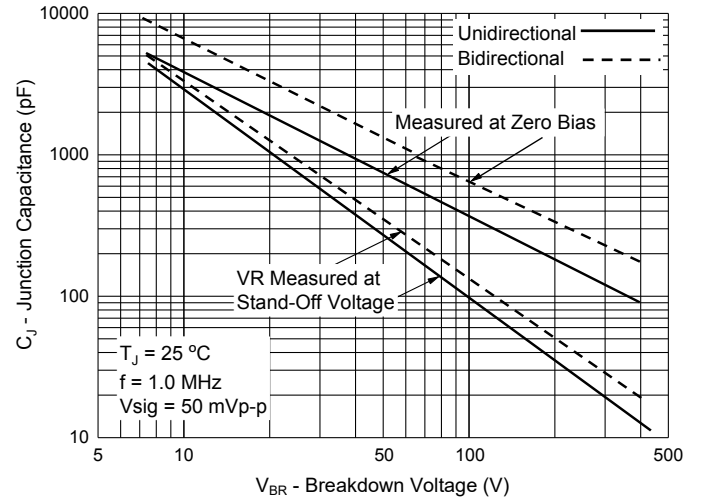


Fig. 3 - Pulse Waveform

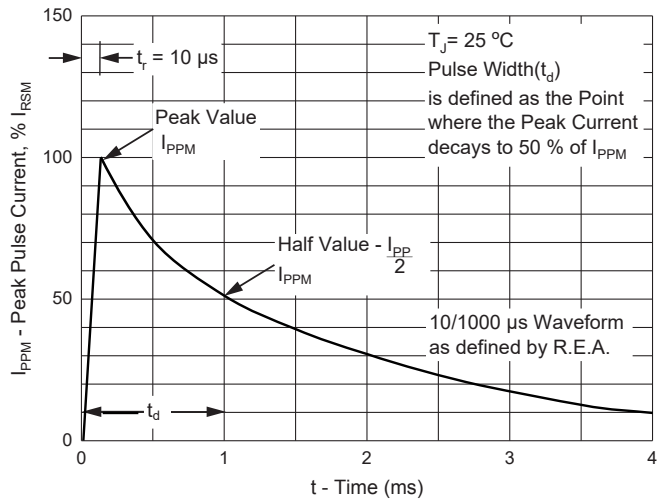


Fig. 4 - Pulse Derating Curve

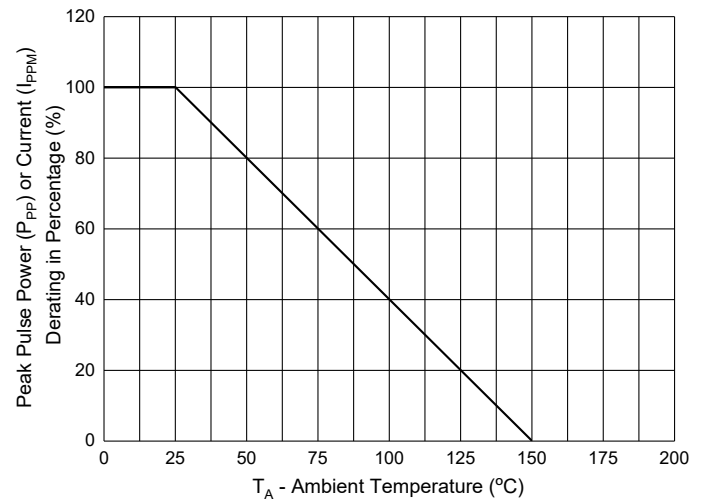
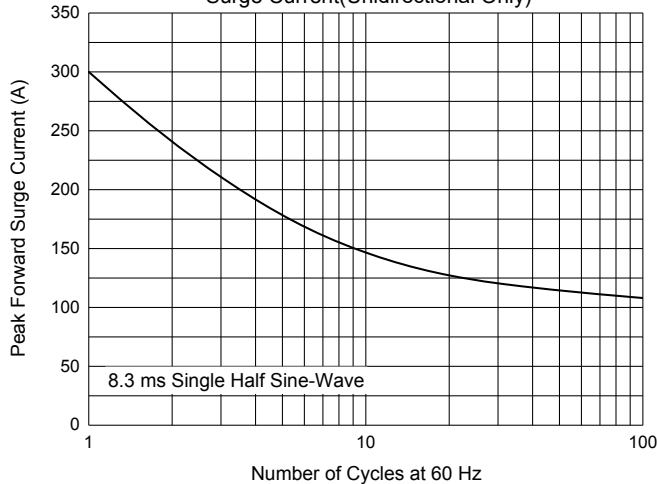


Fig. 5 - Maximum Non-Repetitive Peak Forward Surge Current(Unidirectional Only)



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/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):

<u>SMLJ10AHE3A-TP</u>	<u>SMLJ10CAHE3A-TP</u>	<u>SMLJ11AHE3A-TP</u>	<u>SMLJ11CAHE3A-TP</u>	<u>SMLJ48AHE3A-TP</u>
<u>SMLJ48CAHE3A-TP</u>	<u>SMLJ40AHE3A-TP</u>	<u>SMLJ40CAHE3A-TP</u>	<u>SMLJ43AHE3A-TP</u>	<u>SMLJ43CAHE3A-TP</u>
<u>SMLJ45AHE3A-TP</u>	<u>SMLJ45CAHE3A-TP</u>	<u>SMLJ30AHE3A-TP</u>	<u>SMLJ30CAHE3A-TP</u>	<u>SMLJ33AHE3A-TP</u>
<u>SMLJ33CAHE3A-TP</u>	<u>SMLJ36AHE3A-TP</u>	<u>SMLJ36CAHE3A-TP</u>	<u>SMLJ24AHE3A-TP</u>	<u>SMLJ24CAHE3A-TP</u>
<u>SMLJ26AHE3A-TP</u>	<u>SMLJ26CAHE3A-TP</u>	<u>SMLJ28AHE3A-TP</u>	<u>SMLJ28CAHE3A-TP</u>	<u>SMLJ18AHE3A-TP</u>
<u>SMLJ18CAHE3A-TP</u>	<u>SMLJ20AHE3A-TP</u>	<u>SMLJ20CAHE3A-TP</u>	<u>SMLJ22AHE3A-TP</u>	<u>SMLJ22CAHE3A-TP</u>
<u>SMLJ15AHE3A-TP</u>	<u>SMLJ15CAHE3A-TP</u>	<u>SMLJ16AHE3A-TP</u>	<u>SMLJ16CAHE3A-TP</u>	<u>SMLJ17AHE3A-TP</u>
<u>SMLJ17CAHE3A-TP</u>	<u>SMLJ12AHE3A-TP</u>	<u>SMLJ12CAHE3A-TP</u>	<u>SMLJ13AHE3A-TP</u>	<u>SMLJ13CAHE3A-TP</u>
<u>SMLJ14AHE3A-TP</u>	<u>SMLJ14CAHE3A-TP</u>			