



E480232

Features

- AEC-Q101 Qualified
- Meet ISO7637-2 5a Surge Specification
- Low Leakage
- Glass Passivated Junction
- Polarity: Heatsink is Anode
- Excellent Clamping Capability
- Uni-directional Polarity
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

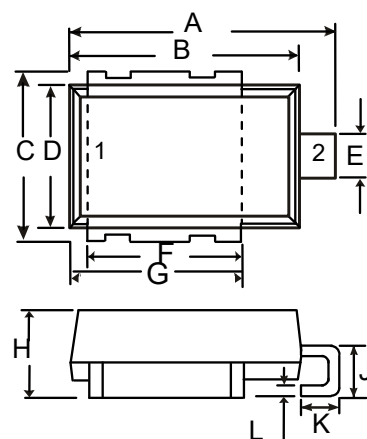
- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

Peak Pulse Power Surge Current with a 10/1000µs Waveform	I_{PPM}	See the Table	Note 2
Peak Pulse Power Dissipation with a 10/1000µs Waveform	P_{PPM}	6600W	Note 2
Peak Pulse Power Dissipation with a 10/10000µs Waveform	P_{PPM}	5200W	
Power Dissipation On Infinite Heatsink	P_D	8.0W	$T_L=25^{\circ}\text{C}$
Peak forward surge current	I_{FSM}	700A	

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.
2. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^{\circ}\text{C}$ per Fig.4

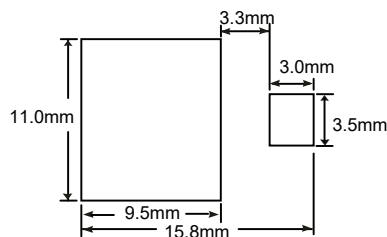
**6600 Watt
TVS
10 to 43 Volts**

DO-218AB



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.590	0.630	15.00	16.00	
B	0.524	0.539	13.30	13.70	
C	0.374	0.413	9.50	10.50	
D	0.323	0.339	8.20	8.60	
E	0.091	0.114	2.30	2.90	
F	0.343	0.366	8.70	9.30	
G	0.382	0.406	9.70	10.30	
H	0.189	0.205	4.80	5.20	
J	0.098	0.138	2.50	3.50	
K	0.067	0.106	1.70	2.70	
L	0.020	0.028	0.50	0.70	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number (Uni)	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Maximum I_R @ V_{RWM} $T_J=175$ (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current IPP (A) ⁽¹⁾	Maximum Clamping Voltage V_C @ I_{PP} (V)
	Min (V)	Max (V)	I_T (mA)					
SM8S10A	11.1	12.3	5.0	15	250	10	388	17.0
SM8S11A	12.2	13.5	5.0	10	150	11	363	18.2
SM8S12A	13.3	14.7	5.0	10	150	12	332	19.9
SM8S13A	14.4	15.9	5.0	10	150	13	307	21.5
SM8S14A	15.6	17.2	5.0	10	150	14	284	23.2
SM8S15A	16.7	18.5	5.0	10	150	15	270	24.4
SM8S16A	17.8	19.7	5.0	10	150	16	254	26.0
SM8S17A	18.9	20.9	5.0	10	150	17	239	27.6
SM8S18A	20.0	22.1	5.0	10	150	18	226	29.2
SM8S20A	22.2	24.5	5.0	10	150	20	204	32.4
SM8S22A	24.4	26.9	5.0	10	150	22	186	35.5
SM8S24A	26.7	29.5	5.0	10	150	24	170	38.9
SM8S26A	28.9	31.9	5.0	10	150	26	157	42.1
SM8S28A	31.1	34.4	5.0	10	150	28	145	45.4
SM8S30A	33.3	36.8	5.0	10	150	30	136	48.4
SM8S33A	36.7	40.6	5.0	10	150	33	124	53.3
SM8S36A	40.0	44.2	5.0	10	150	36	114	58.1
SM8S40A	44.4	49.1	5.0	10	150	40	102	64.5
SM8S43A	47.8	52.8	5.0	10	150	43	95.1	69.4

Note: 1.Surge current waveform is defined at 10/1000us waveform

2.For all types maximum $V_F = 1.9V$ at $I_F = 100A$ measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

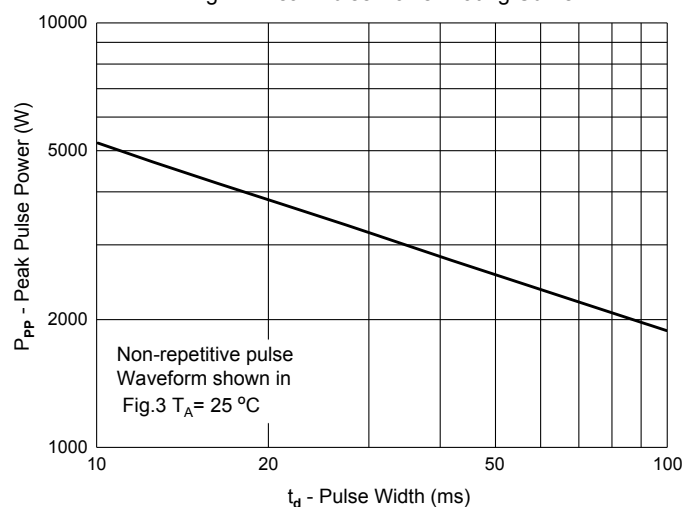


Fig. 2 - Typical Junction Capacitance

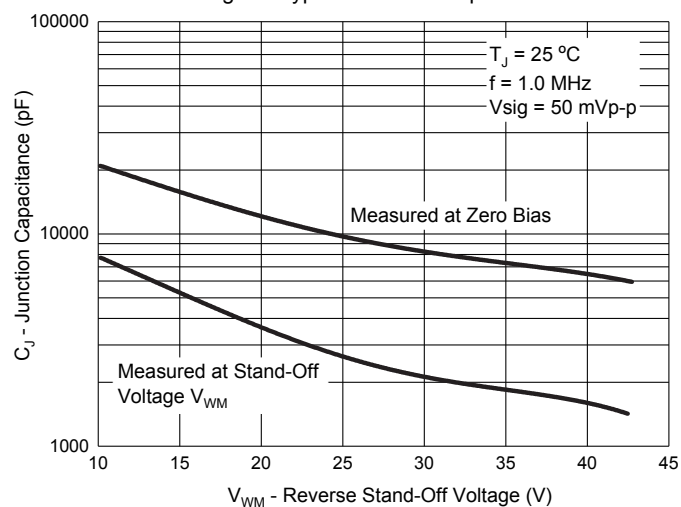


Fig. 3 - Pulse Waveform

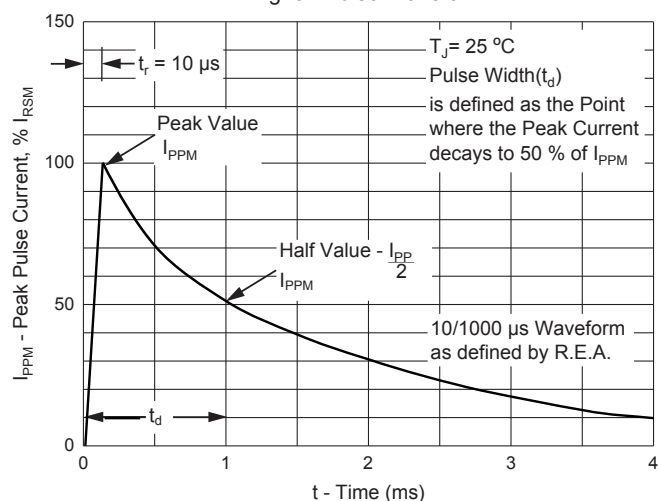
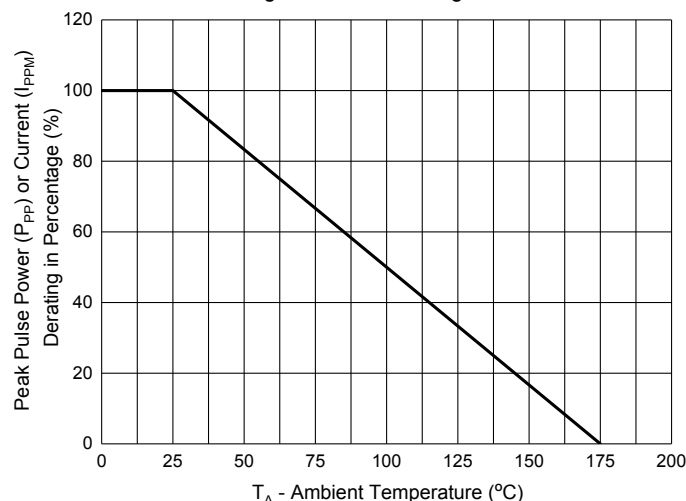


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:750pcs/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):

[SM8S24A-TP](#) [SM8S33A-TP](#) [SM8S30A-TP](#) [SM8S22A-TP](#) [SM8S36A-TP](#) [SM8S26A-TP](#) [SM8S10A-TP](#) [SM8S11A-TP](#) [SM8S12A-TP](#) [SM8S13A-TP](#) [SM8S14A-TP](#) [SM8S15A-TP](#) [SM8S43A-TP](#) [SM8S16A-TP](#) [SM8S17A-TP](#) [SM8S18A-TP](#) [SM8S20A-TP](#) [SM8S28A-TP](#) [SM8S40A-TP](#)