Features

- AEC-Q101 Qualified
- Low Leakage Current
- Excellent Clamping Capability
- Bi-directional Polarity
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- ESD protection of data lines in accordance with IEC 61000-4-2, ±30kV(Air),±30kV (Contact)

4600 Watt
TVS
10 to 43 Volts

Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Surge Current with a 10/1000μs Waveform(Note2)	I_{PPM}	See Next Table	A
Peak Pulse Power Dissipationwith a 10/1000μs Waveform	P_{PPM}	4600	W
Peak Pulse Power Dissipation with a 10/10000μs Waveform	P_{PPM}	3600	W
Power Dissipation On Infinite Heatsink TL=25°C	P_D	5	W
Peak Forward Surge Current Unidirectional Only(Note3)	I_{FSM}	600	A
Operating Junction Temperature Range	T_J	-55 to +175	˚C
Storage Temperature Range	T_{STG}	-55 to +175	˚C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	1.2	˚C/W

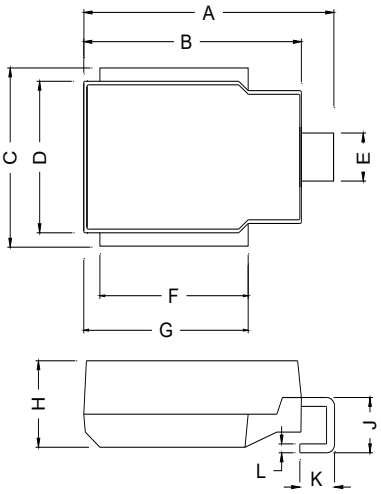
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.
2. Non-repetitive current pulse, per Fig.2 and derated above T_A=25°C per Fig.3
3. 8.3 ms single half sine-wave

Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional	MCC XXXX YYWW	Cathode (1) Anode (2)
Bi-directional	MCC XXXX YYWW	(1) (2)

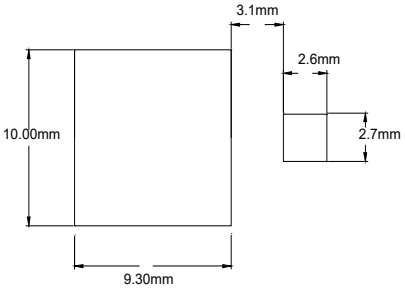
XXXX = Marking code YYWW = Date Code

DO-218AB



DIMENSIONS					
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	8.70	
E	0.091	0.114	2.30	3.00	
F	0.343	0.366	8.70	9.50	
G	0.382	0.406	9.70	10.50	
H	0.189	0.205	4.70	5.20	
J	0.098	0.138	2.50	3.50	
K	0.067	0.106	1.70	2.80	
L	0.020	0.028	0.50	0.70	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number		Working Peak Reverse Voltage VRWM (V)	Breakdown Voltage VBR @IT			Maximum Reverse Leakage IR @VRWM (μA)	Maximum IR @VRWM TJ=175 (μA)	Maximum Reverse Surge Current IPP (A)(1)	Maximum Clamping Voltage VC@IPP (V)
			Min (V)	Max (V)	IT(mA)				
SM6S10AHE3	SM6S10CAHE3	10	11.1	12.3	5	15	250	271	17.0
SM6S11AHE3	SM6S11CAHE3	11	12.2	13.5	5	10	150	253	18.2
SM6S12AHE3	SM6S12CAHE3	12	13.3	14.7	5	10	150	231	19.9
SM6S13AHE3	SM6S13CAHE3	13	14.4	15.9	5	10	150	214	21.5
SM6S14AHE3	SM6S14CAHE3	14	15.6	17.2	5	10	150	198	23.2
SM6S15AHE3	SM6S15CAHE3	15	16.7	18.5	5	10	150	189	24.4
SM6S16AHE3	SM6S16CAHE3	16	17.8	19.7	5	10	150	177	26.0
SM6S17AHE3	SM6S17CAHE3	17	18.9	20.9	5	10	150	167	27.6
SM6S18AHE3	SM6S18CAHE3	18	20.0	22.1	5	10	150	158	29.2
SM6S20AHE3	SM6S20CAHE3	20	22.2	24.5	5	10	150	142	32.4
SM6S22AHE3	SM6S22CAHE3	22	24.4	26.9	5	10	150	130	35.5
SM6S24AHE3	SM6S24CAHE3	24	26.7	29.5	5	10	150	118	38.9
SM6S26AHE3	SM6S26CAHE3	26	28.9	31.9	5	10	150	109	42.1
SM6S28AHE3	SM6S28CAHE3	28	31.1	34.4	5	10	150	101	45.4
SM6S30AHE3	SM6S30CAHE3	30	33.3	36.8	5	10	150	95	48.4
SM6S33AHE3	SM6S33CAHE3	33	36.7	40.6	5	10	150	86	53.3
SM6S36AHE3	SM6S36CAHE3	36	40.0	44.2	5	10	150	79	58.1
SM6S40AHE3	SM6S40CAHE3	40	44.4	49.1	5	10	150	71	64.5
SM6S43AHE3	SM6S43CAHE3	43	47.8	52.8	5	10	150	66	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

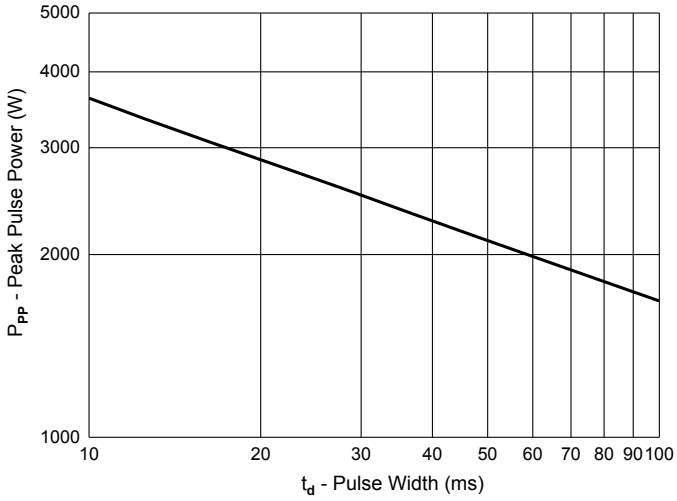


Fig. 2 - Steady State Power Derating Curve

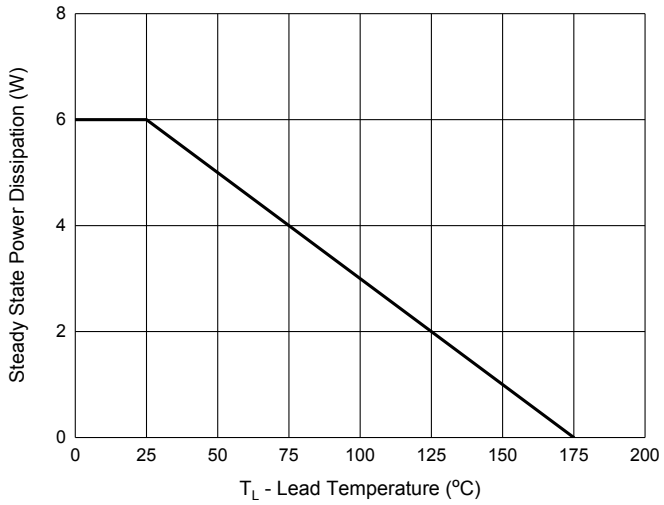


Fig. 3 - Pulse Waveform

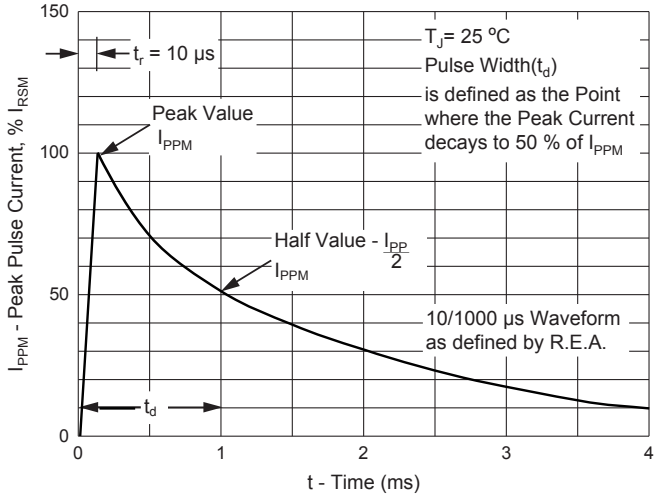
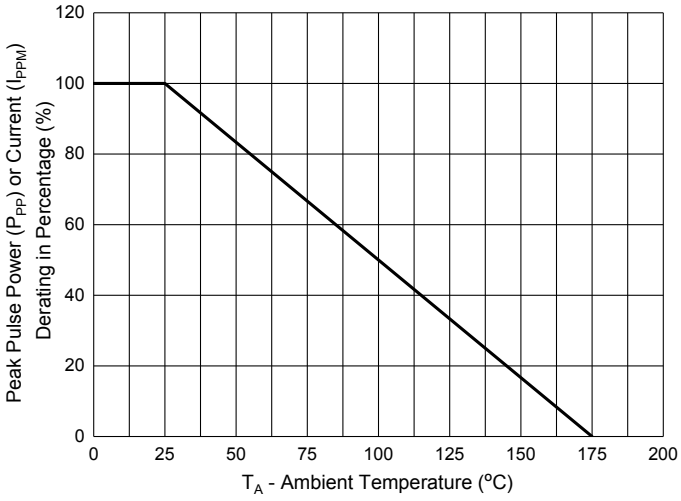


Fig. 4 - Pulse Derating Curve



Ordering Information

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

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