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Micro Commercial Components

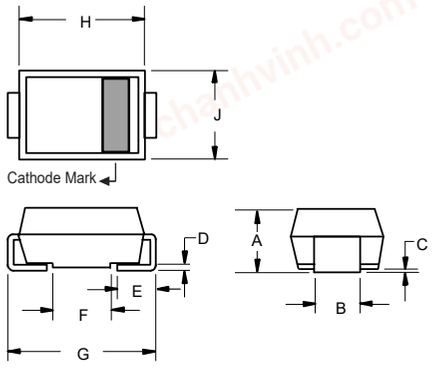
	E480232

Features

- AEC-Q101 Qualified
- For Surface Mount Applications
- Excellent Clamping Capability
- High Temp Soldering:260°C / 10 Seconds at Terminals
- 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)
- ESD protection of data lines in accordance with IEC 61000-4-2, ±30kV(Air),±30kV (Contact)

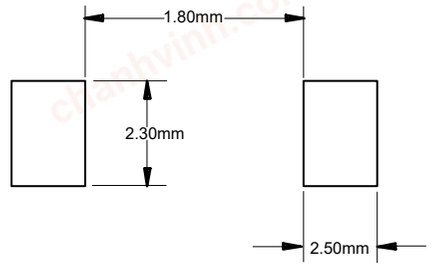
1500 Watt TVS 5.0 to 85 Volts

SMB (DO-214AA) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



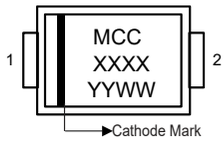
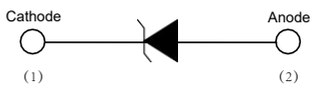
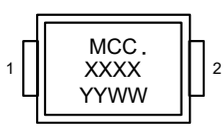
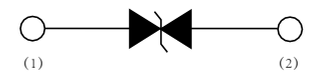
Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Surge Current with a 10/1000μs Waveform (Note 3)	I_{PPM}	See Next Table	A
Peak Pulse Power Dissipation(Note 3)	P_{PPM}	1500	W
Power Dissipation on Infinite Heatsink at T_L= 75°C	P_D	5.0	W
Peak Forward Surge Current Unidirectional Only (Note 4)	I_{FSM}	100	A

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.
4. 8.3ms, single half sine wave duty cycle = 4 pulses per Minutes maximum.

Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		
Bi-directional		

XXXX = Marking code YYWW = Date Code

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Thermal Characteristics

Parameter	Symbol	Value	Unit
Operating Junction Temperature Range	T_J	-55 to +175	˚C
Storage Temperature Range	T_{STG}	-55 to +175	˚C
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	˚C/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	˚C/W
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	15	˚C/W

Note:
5.Mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pads to each terminal.

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Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number		Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Maximum Clamping Voltage@ I_{PP}	Maximum Peak Pulse Current	Maximum Reverse Leakage @V_R	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
SMB15J5.0AHE3	SMB15J5.0CAHE3	5	6.4	7.07	10	9.2	163	1000	15KE	15AE
SMB15J6.0AHE3	SMB15J6.0CAHE3	6	6.67	7.37	10	10.3	145.6	1000	15KG	15AG
SMB15J6.5AHE3	SMB15J6.5CAHE3	6.5	7.22	7.98	10	11.2	133.9	500	15KK	15AK
SMB15J7.0AHE3	SMB15J7.0CAHE3	7	7.78	8.6	10	12	125	200	15KM	15AM
SMB15J7.5AHE3	SMB15J7.5CAHE3	7.5	8.33	9.21	1	12.9	116.3	100	15KP	15AP
SMB15J8.0AHE3	SMB15J8.0CAHE3	8	8.89	9.83	1	13.6	110.29	50	15KR	15AR
SMB15J8.5AHE3	SMB15J8.5CAHE3	8.5	9.44	10.4	1	14.4	104.17	20	15KT	15AT
SMB15J9.0AHE3	SMB15J9.0CAHE3	9	10	11.1	1	15.4	97.4	10	15KV	15AV
SMB15J10AHE3	SMB15J10CAHE3	10	11.1	12.3	1	17	88.24	5	15KX	15AX
SMB15J11AHE3	SMB15J11CAHE3	11	12.2	13.5	1	18.2	82.42	5	15KZ	15AZ
SMB15J12AHE3	SMB15J12CAHE3	12	13.3	14.7	1	19.9	75.38	5	15LE	15BE
SMB15J13AHE3	SMB15J13CAHE3	13	14.4	15.9	1	21.5	69.77	5	15LG	15BG
SMB15J14AHE3	SMB15J14CAHE3	14	15.6	17.2	1	23.2	64.66	5	15LK	15BK
SMB15J15AHE3	SMB15J15CAHE3	15	16.7	18.5	1	24.4	61.48	5	15LM	15BM
SMB15J16AHE3	SMB15J16CAHE3	16	17.8	19.7	1	26	57.69	5	15LP	15BP
SMB15J17AHE3	SMB15J17CAHE3	17	18.9	20.9	1	27.6	54.35	5	15LR	15BR
SMB15J18AHE3	SMB15J18CAHE3	18	20	22.1	1	29.2	51.37	5	15LT	15BT
SMB15J19AHE3	SMB15J19CAHE3	19	21.1	23.3	1	30.8	48.73	5	15LU	15BU
SMB15J20AHE3	SMB15J20CAHE3	20	22.2	24.5	1	32.4	46.3	5	15LV	15BV
SMB15J22AHE3	SMB15J22CAHE3	22	24.4	26.9	1	35.5	42.25	5	15LX	15BX
SMB15J24AHE3	SMB15J24CAHE3	24	26.7	29.5	1	38.9	38.56	5	15LZ	15BZ
SMB15J26AHE3	SMB15J26CAHE3	26	28.9	31.9	1	42.1	35.63	5	15ME	15CE
SMB15J28AHE3	SMB15J28CAHE3	28	31.1	34.4	1	45.4	33.04	5	15MG	15CG
SMB15J30AHE3	SMB15J30CAHE3	30	33.3	36.8	1	48.4	30.99	5	15MK	15CK
SMB15J33AHE3	SMB15J33CAHE3	33	36.7	40.6	1	53.3	28.14	5	15MM	15CM
SMB15J36AHE3	SMB15J36CAHE3	36	40	44.2	1	58.1	25.82	5	15MP	15CP
SMB15J40AHE3	SMB15J40CAHE3	40	44.4	49.1	1	64.5	23.26	5	15MR	15CR
SMB15J43AHE3	SMB15J43CAHE3	43	47.8	52.8	1	69.4	21.61	5	15MT	15CT
SMB15J45AHE3	SMB15J45CAHE3	45	50	55.3	1	72.7	20.63	5	15MV	15CV
SMB15J48AHE3	SMB15J48CAHE3	48	53.3	58.9	1	77.4	19.38	5	15MX	15CX
SMB15J51AHE3	SMB15J51CAHE3	51	56.7	62.7	1	82.4	18.2	5	15MZ	15CZ
SMB15J54AHE3	SMB15J54CAHE3	54	60	66.3	1	87.1	17.22	5	15NE	15DE
SMB15J58AHE3	SMB15J58CAHE3	58	64.4	71.2	1	93.6	16.03	5	15NG	15DG
SMB15J60AHE3	SMB15J60CAHE3	60	66.7	73.7	1	96.8	15.5	5	15NK	15DK
SMB15J64AHE3	SMB15J64CAHE3	64	71.1	78.6	1	103	14.56	5	15NM	15DM
SMB15J70AHE3	SMB15J70CAHE3	70	77.8	86	1	113	13.27	5	15NP	15DP
SMB15J75AHE3	SMB15J75CAHE3	75	83.3	92.1	1	121	12.4	5	15NR	15DR
SMB15J78AHE3	SMB15J78CAHE3	78	86.7	95.8	1	126	11.9	5	15NT	15DT
SMB15J80AHE3	SMB15J80CAHE3	80	88.8	97.6	1	129.6	11.57	5	15NU	15DU
SMB15J85AHE3	SMB15J85CAHE3	85	94.4	104	1	137	10.95	5	15NV	15DV

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Curve Characteristics

Fig.1-Peak Pulse Power Rating Curve

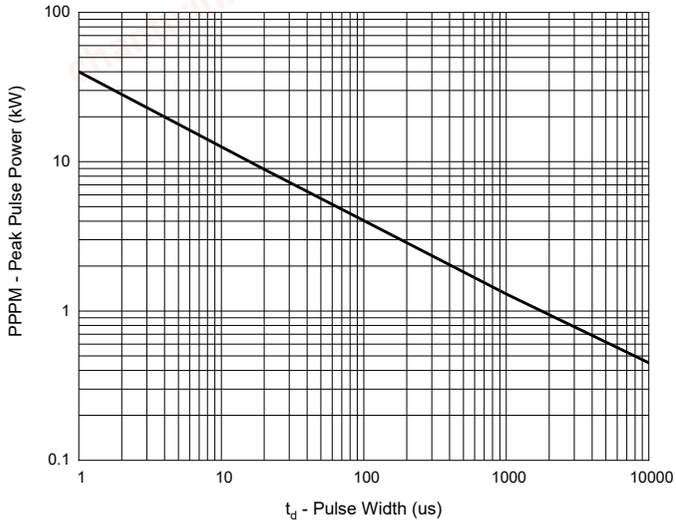


Fig. 2 - Typical Junction Capacitance

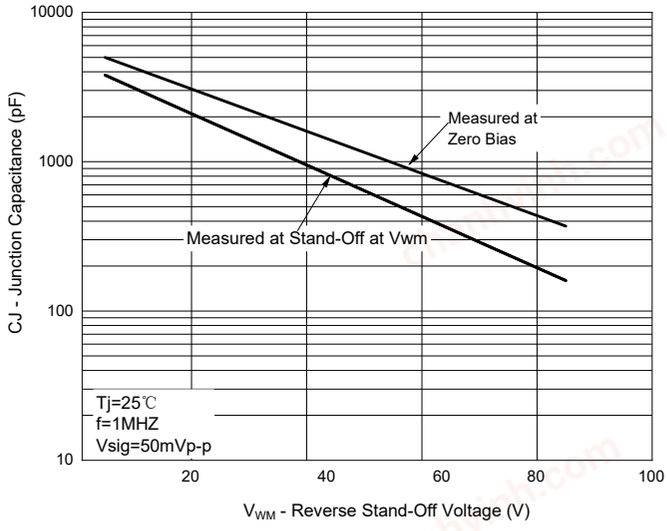


Fig. 3 - Pulse Waveform

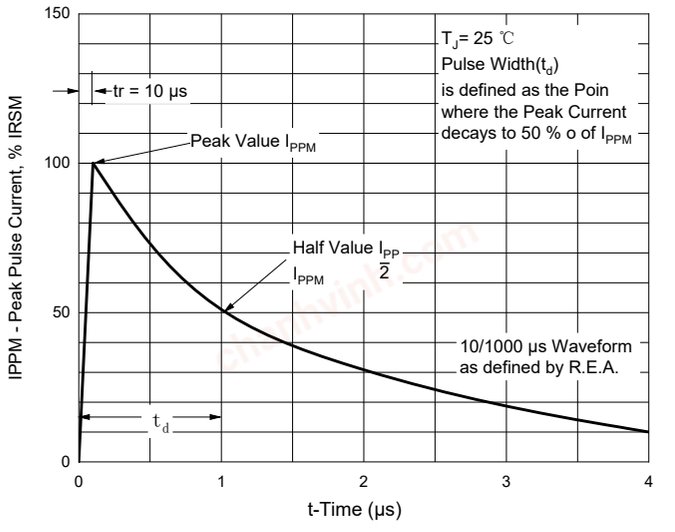
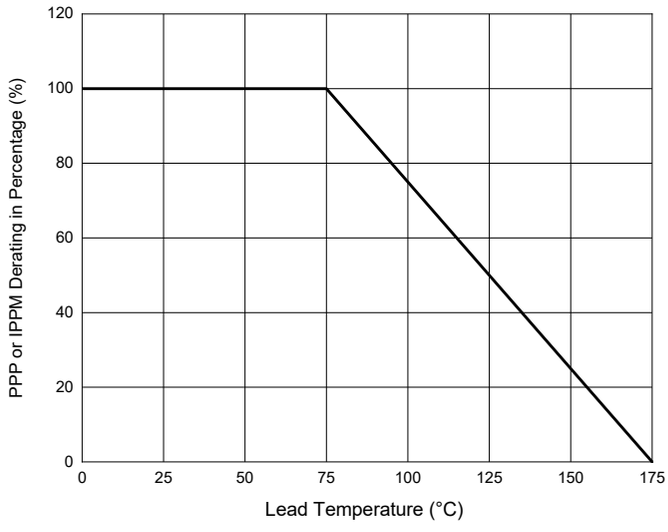


Fig. 4 - Pulse Derating Curve



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Ordering Information

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

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