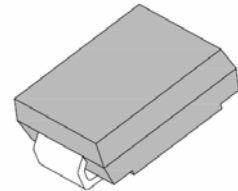


1500W Surface Mount Transient Voltage Suppressor

Features

- Low inductance, excellent clamping capability
- Repetition rate(duty cycle): 0.05%
- Fast response time: typically less than 1.0ps from 0V to BV min.
- Typical I_R less than 1 μ A above 10V
- High temperature soldering guaranteed 250°C/10 seconds at terminals
- This series is UL recognized under component index. File number E315008
- RoHS Compliant



SMC



Mechanical Data

Case:	JEDEC DO-214AB (SMC) molded plastic over glass passivated junction
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denoted positive end (cathode) except Bi-directional
Mounting position:	Any
Weight:	0.007 Ounce, 0.21 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	Value	Unit	Conditions
PPPM	Peak Pulse Power Dissipation on 10/1000 us waveform	Minimum 1500	W	Non-repetitive current pulse, per FIG.3 and derated above $T_A=25^{\circ}C$ per FIG.2
IPPM	Peak Pulse current on 10/1000 us waveform	See Table	A	Non-repetitive current pulse
IFSM	Peak Forward Surge Current	200	A	8.3ms single half sine-wave superimposed on rated load, (JEDEC Method) (Note 1,2)
T_J,T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150	$^{\circ}C$	

- Note:** 1. Mounted on 8.0mm x 8.0mm copper pads to each terminal
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle= 4 pulses per minutes maximum.

1500W Surface Mount Transient Voltage Suppressor

1.5SMCJ6.8A-1.5SMCJ250CA

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Part NO.		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage @ Test Current.			Max. Clamping Voltage @ IPPM	Max. Peak Pulse Current	Max. Reverse Leakage Current @ V_{WM}
					V_{BR}		I_T (mA)			
Uni-Polar	Bi-Polar	Uni	Bi	V_{WM} (V)	Min.	Max.		V_C (V)	IPPM (A)	I_D (μ A)
1.5SMCJ6.8A	1.5SMCJ6.8CA	6V8A	6V8C	5.8	6.45	7.14	10	10.5	144.8	1000/2000
1.5SMCJ7.5A	1.5SMCJ7.5CA	7V5A	7V5C	6.4	7.13	7.88		11.3	134.5	500/1000
1.5SMCJ8.2A	1.5SMCJ8.2CA	8V2A	8V2C	7.02	7.79	8.61		12.1	125.6	200/400
1.5SMCJ9.1A	1.5SMCJ9.1CA	9V1A	9V1C	7.78	8.65	9.55	1	13.4	113.4	50/100
1.5SMCJ10A	1.5SMCJ10CA	10A	10C	8.55	9.5	10.5	1	14.5	104.8	10/20
1.5SMCJ11A	1.5SMCJ11CA	11A	11C	9.4	10.5	11.6	1	15.6	97.4	5/10
1.5SMCJ12A	1.5SMCJ12CA	12A	12C	10.2	11.4	12.6	1	16.7	91.0	5/10
1.5SMCJ13A	1.5SMCJ13CA	13A	13C	11.1	12.4	13.7	1	18.2	83.5	5
1.5SMCJ15A	1.5SMCJ15CA	15A	15C	12.8	14.3	15.8	1	21.2	71.7	5
1.5SMCJ16A	1.5SMCJ16CA	16A	16C	13.6	15.2	16.8	1	22.5	67.6	5
1.5SMCJ18A	1.5SMCJ18CA	18A	18C	15.3	17.1	18.9	1	25.2	60.3	5
1.5SMCJ20A	1.5SMCJ20CA	20A	20C	17.1	19	21	1	27.7	54.9	5
1.5SMCJ22A	1.5SMCJ22CA	22A	22C	18.8	20.9	23.1	1	30.6	49.7	5
1.5SMCJ24A	1.5SMCJ24CA	24A	24C	20.5	22.8	25.2	1	33.2	45.8	5
1.5SMCJ27A	1.5SMCJ27CA	27A	27C	23.1	25.7	28.4	1	37.5	40.5	5
1.5SMCJ30A	1.5SMCJ30CA	30A	30C	25.6	28.5	31.5	1	41.4	36.7	5
1.5SMCJ33A	1.5SMCJ33CA	33A	33C	28.2	31.4	34.7	1	45.7	33.3	5
1.5SMCJ36A	1.5SMCJ36CA	36A	36C	30.8	34.2	37.8	1	49.9	30.5	5
1.5SMCJ39A	1.5SMCJ39CA	39A	39C	33.3	37.1	41	1	53.9	28.2	5
1.5SMCJ43A	1.5SMCJ43CA	43A	43C	36.8	40.9	45.2	1	59.3	25.6	5
1.5SMCJ47A	1.5SMCJ47CA	47A	47C	40.2	44.7	49.4	1	64.8	23.5	5
1.5SMCJ51A	1.5SMCJ51CA	51A	51C	43.6	48.5	53.6	1	70.1	21.7	5
1.5SMCJ56A	1.5SMCJ56CA	56A	56C	47.8	53.2	58.8	1	77	19.7	5
1.5SMCJ62A	1.5SMCJ62CA	62A	62C	53	58.9	65.1	1	85	17.9	5
1.5SMCJ68A	1.5SMCJ68CA	68A	68C	58.1	64.6	71.4	1	92	16.5	5
1.5SMCJ75A	1.5SMCJ75CA	75A	75C	64.1	71.3	78.8	1	103	14.8	5
1.5SMCJ82A	1.5SMCJ82CA	82A	82C	70.1	77.9	86.1	1	113	13.5	5
1.5SMCJ91A	1.5SMCJ91CA	91A	91C	77.8	86.5	95.5	1	125	12.2	5
1.5SMCJ100A	1.5SMCJ100CA	100A	100C	85.5	95	105	1	137	11.1	5
1.5SMCJ110A	1.5SMCJ110CA	110A	110C	94	105	116	1	152	10.0	5
1.5SMCJ120A	1.5SMCJ120CA	120A	120C	102	114	126	1	165	9.2	5
1.5SMCJ130A	1.5SMCJ130CA	130A	130C	111	124	137	1	179	8.5	5

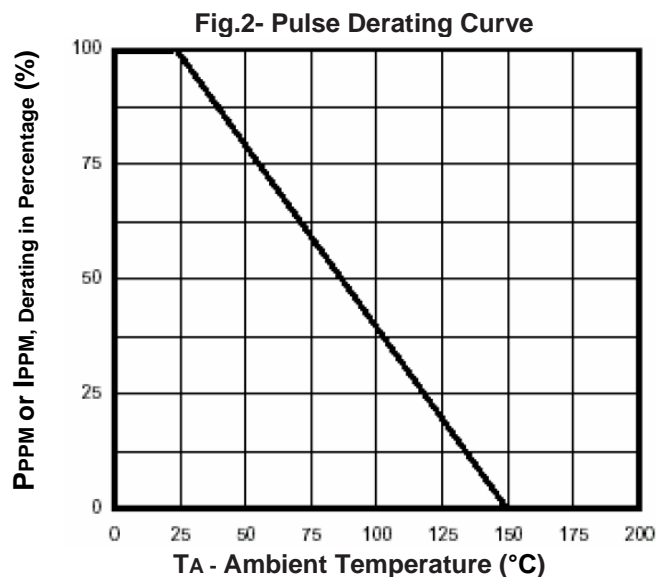
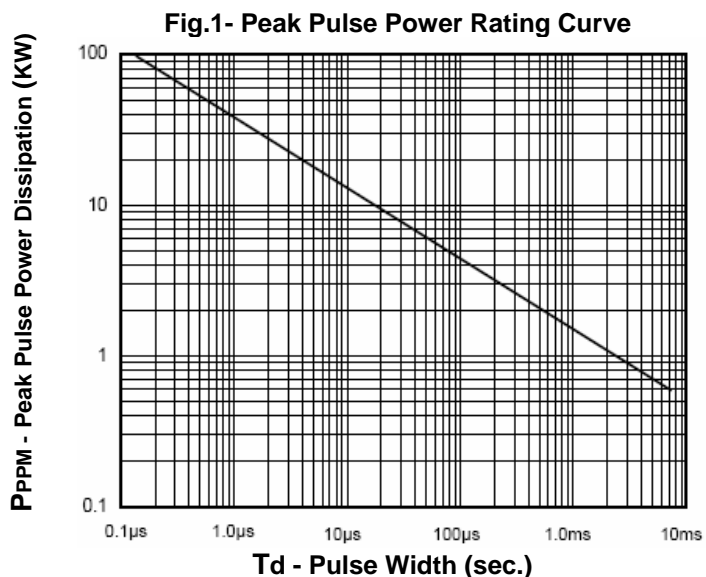
1500W Surface Mount Transient Voltage Suppressor

1.5SMCJ6.8A-1.5SMCJ250CA

Part NO.		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage @ Test Current.			Max. Clamping Voltage @ IPPM	Max. Peak Pulse Current	Max. Reverse Leakage Current @ V _{WM}
					V _{BR}		I _T (mA)			
Uni-Polar	Bi-Polar	Uni	Bi	V _{WM} (V)	Min.	Max.		V _C (V)	I _{PPM} (A)	I _D (μA)
1.5SMCJ150A	1.5SMCJ150CA	150A	150C	128	143	158	1	207	7.3	5
1.5SMCJ160A	1.5SMCJ160CA	160A	160C	136	152	168	1	219	6.9	5
1.5SMCJ170A	1.5SMCJ170CA	170A	170C	145	162	179	1	234	6.5	5
1.5SMCJ180A	1.5SMCJ180CA	180A	180C	154	171	189	1	246	6.2	5
1.5SMCJ200A	1.5SMCJ200CA	200A	200C	171	190	210	1	274	5.5	5
1.5SMCJ220A	1.5SMCJ220CA	220A	220C	185	209	231	1	328	4.6	5
1.5SMCJ250A	1.5SMCJ250CA	250A	250C	214	237	263	1	344	4.4	5

Note: For bi-directional type having V_{WM} of 10V and less, the I_D limit is double.

Typical Characteristics Curves



1500W Surface Mount Transient Voltage Suppressor

1.5SMCJ6.8A-1.5SMCJ250CA

Fig.3- Pulse Waveform

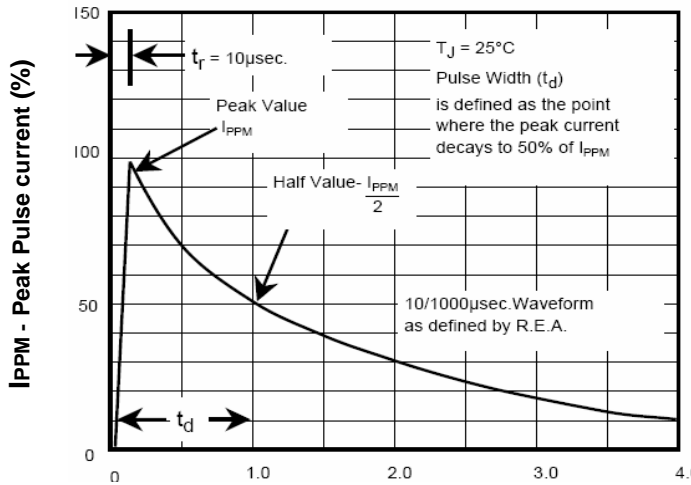


Fig.4 - Max. Non-Repetitive Forward Surge Current Uni-Directional Only

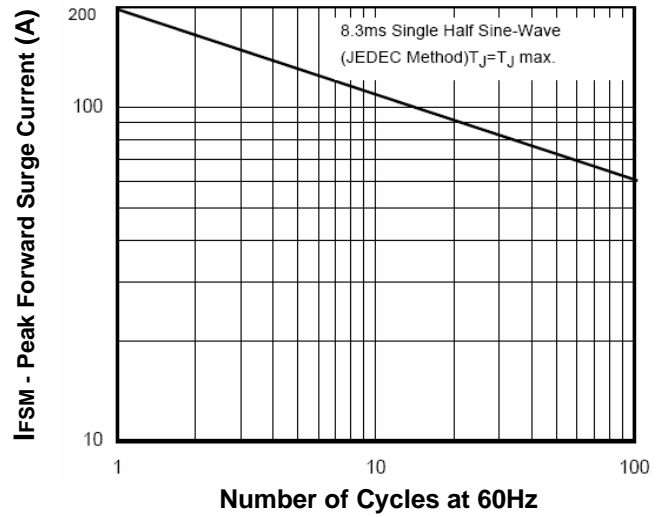
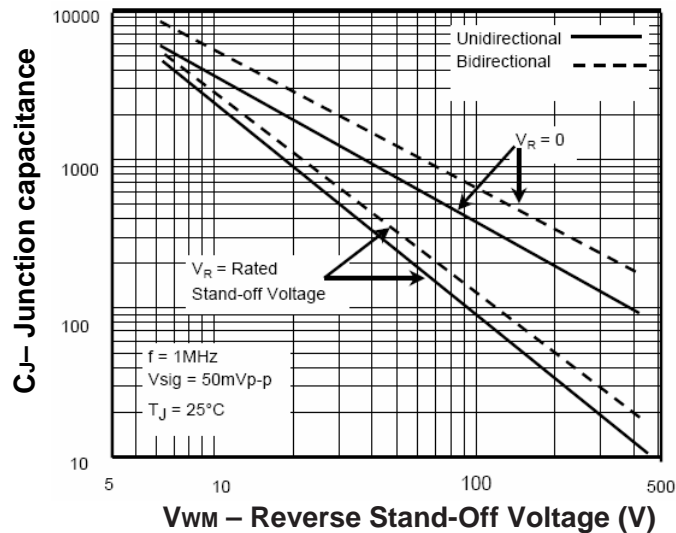


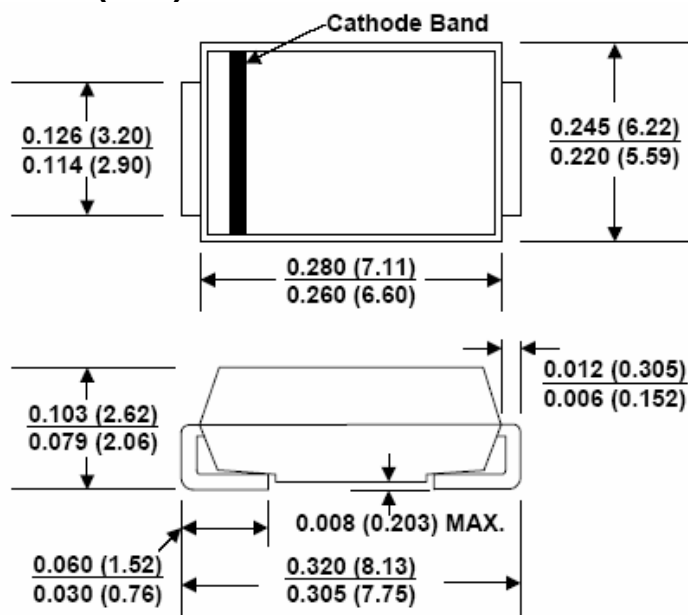
Fig.5- Typical Junction Capacitance



1500W Surface Mount Transient Voltage Suppressor

1.5SMCJ6.8A-1.5SMCJ250CA

Dimensions in inches (mm)



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