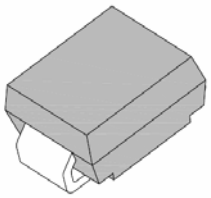
600W Surface Mount Transient Voltage Suppressor

SMB



Features

- Breakdown voltage from 6.8 to 250 volts
- Low inductance, excellent clamping capability
- Repetition rate(duty cycle): 0.01%
- Fast response time: typically less than 1.0ps from 0v to V_{BR}
- For unidirectional types
- Typical IR less than 1 μA 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

Mechanical Data

Case:	JEDEC DO-214AA (SMB) 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:	0.003 ounces, 0.093 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	Value	Unit	Conditions
P_{PPM}	Peak Pulse Power Dissipation on 10/1000μs Waveform	Minimum 600	W	Non-repetitive current pulse, per FIG.3 and derated above T_A=25° C per FIG.2
I_{PPM}	Peak Pulse Current on 10/1000μs Waveform	See Table	A	Non-repetitive current pulse
I_{FSM}	Peak Forward Surge Current	100	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	° C	

Note: **1.** Mounted on 5.0mm x 5.0mm (0.03mm thick) copper pads to each terminal
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle= 4 pulses per minutes maximum.

Tel: (800)-TAITRON (800)-824-8766 (661)-257-6060
Fax: (800)-TAITFAX (800)-824-8329 (661)-257-6415

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Part NO.		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage @ Test Current.			Max. Clamping Voltage @ I_{PPM}	Max. Peak Pulse Current	Max. Reverse Leakage Current @ V_{WM}
					V_{BR}					
Uni-Polar	Bi-Polar	Uni	Bi	V_{WM} (V)	Min.	Max.	I_T(mA)	V_C (V)	I_{PPM} (A)	I_D (μA)
P6SMB6.8A	P6SMB6.8CA	6V8A	6V8C	5.8	6.45	7.14	10	10.5	58.1	1000/2000
P6SMB7.5A	P6SMB7.5CA	7V5A	7V5C	6.4	7.13	7.88		11.3	54.0	500/1000
P6SMB8.2A	P6SMB8.2CA	8V2A	8V2C	7.02	7.79	8.61		12.1	50.4	200/400
P6SMB9.1A	P6SMB9.1CA	9V1A	9V1C	7.78	8.65	9.55	1	13.4	45.5	50/100
P6SMB10A	P6SMB10CA	10A	10C	8.55	9.5	10.5	1	14.5	42.1	10/20
P6SMB11A	P6SMB11CA	11A	11C	9.4	10.5	11.6	1	15.6	39.1	5/10
P6SMB12A	P6SMB12CA	12A	12C	10.2	11.4	12.6	1	16.7	36.5	5/10
P6SMB13A	P6SMB13CA	13A	13C	11.1	12.4	13.7	1	18.2	33.5	1
P6SMB15A	P6SMB15CA	15A	15C	12.8	14.3	15.8	1	21.2	28.8	1
P6SMB16A	P6SMB16CA	16A	16C	13.6	15.2	16.8	1	22.5	27.1	1
P6SMB18A	P6SMB18CA	18A	18C	15.3	17.1	18.9	1	25.5	24.2	1
P6SMB20A	P6SMB20CA	20A	20C	17.1	19	21	1	27.7	22.0	1
P6SMB22A	P6SMB22CA	22A	22C	18.8	20.9	23.1	1	30.6	19.9	1
P6SMB24A	P6SMB24CA	24A	24C	20.5	22.8	25.2	1	33.2	18.4	1
P6SMB27A	P6SMB27CA	27A	27C	23.1	25.7	28.4	1	37.5	16.3	1
P6SMB30A	P6SMB30CA	30A	30C	25.6	28.5	31.5	1	41.4	14.7	1
P6SMB33A	P6SMB33CA	33A	33C	28.2	31.4	34.7	1	45.7	13.3	1
P6SMB36A	P6SMB36CA	36A	36C	30.8	34.2	37.8	1	49.9	12.2	1
P6SMB39A	P6SMB39CA	39A	39C	33.3	37.1	41	1	53.9	11.3	1
P6SMB43A	P6SMB43CA	43A	43C	36.8	40.9	45.2	1	59.3	10.3	1
P6SMB47A	P6SMB47CA	47A	47C	40.2	44.7	49.4	1	64.8	9.4	1
P6SMB51A	P6SMB51CA	51A	51C	43.6	48.5	53.6	1	70.1	8.7	1
P6SMB56A	P6SMB56CA	56A	56C	47.8	53.2	58.8	1	77	7.9	1
P6SMB62A	P6SMB62CA	62A	62C	53	58.9	65.1	1	85	7.2	1
P6SMB68A	P6SMB68CA	68A	68C	58.1	64.6	71.4	1	92	6.6	1
P6SMB75A	P6SMB75CA	75A	75C	64.1	71.3	78.8	1	103	5.9	1
P6SMB82A	P6SMB82CA	82A	82C	70.1	77.9	86.1	1	113	5.4	1
P6SMB91A	P6SMB91CA	91A	91C	77.8	86.5	95.5	1	125	4.9	1
P6SMB100A	P6SMB100CA	100A	100C	85.5	95	105	1	137	4.5	1
P6SMB110A	P6SMB110CA	110A	110C	94	105	116	1	152	4.0	1
P6SMB120A	P6SMB120CA	120A	120C	102	114	126	1	165	3.7	1
P6SMB130A	P6SMB130CA	130A	130C	111	124	137	1	179	3.4	1

Electrical Characteristics *(T Ambient=25ºC 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					
Uni-Polar	Bi-Polar	Uni	Bi	V WM (V)	Min.	Max.	IT(mA)	VC (V)	IPPM (A)	ID (μA)
P6SMB150A	P6SMB150CA	150A	150C	128	143	158	1	207	2.9	1
P6SMB160A	P6SMB160CA	160A	160C	136	152	168	1	219	2.8	1
P6SMB170A	P6SMB170CA	170A	170C	145	162	179	1	234	2.6	1
P6SMB180A	P6SMB180CA	180A	180C	154	171	189	1	246	2.5	1
P6SMB200A	P6SMB200CA	200A	200C	171	190	210	1	274	2.2	1
P6SMB220A	P6SMB220CA	220A	220C	185	209	231	1	328	1.9	1
P6SMB250A	P6SMB250CA	250A	250C	214	237	263	1	344	1.8	1

Note: For bi-directional type having VWM of 10V and less, the ID limit is double.

Typical Characteristics Curves

Fig.1- Peak Pulse Power Rating Curve

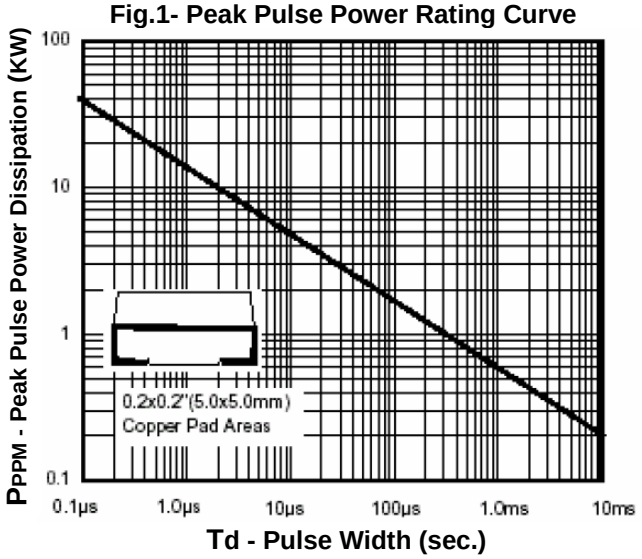


Fig.2- Pulse Derating Curve

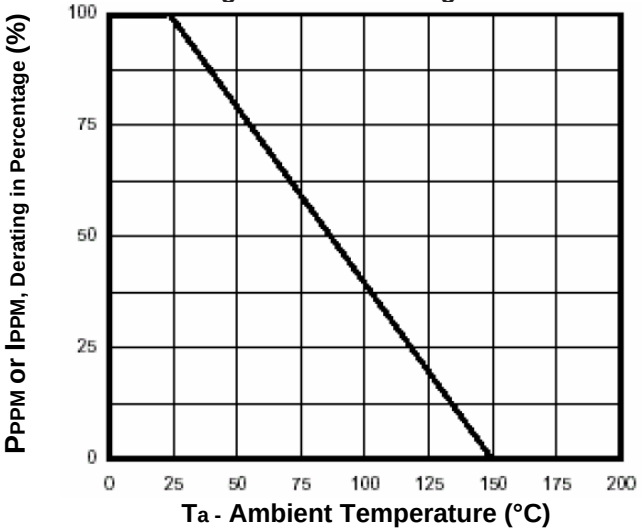


Fig.3- Pulse Waveform

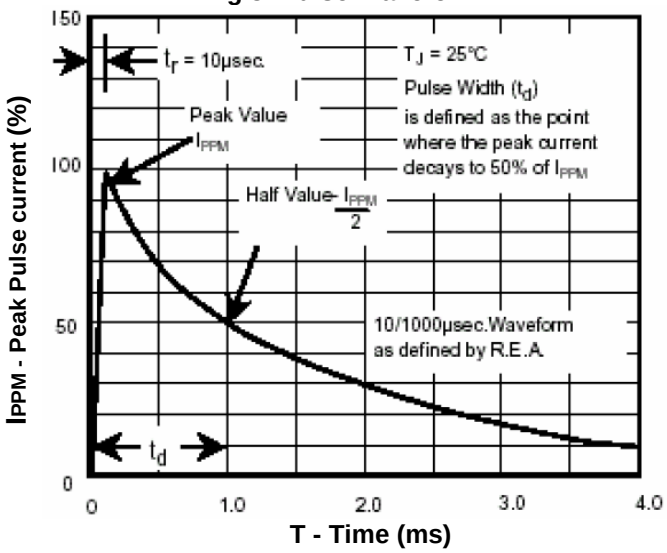


Fig.4 - Max. Non-Repetitive Forward Surge Current

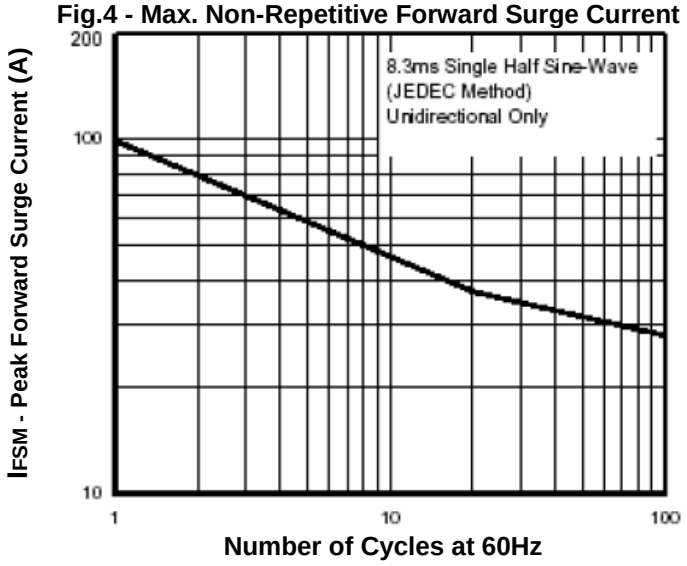


Fig.5- Steady State Power Derating Curve

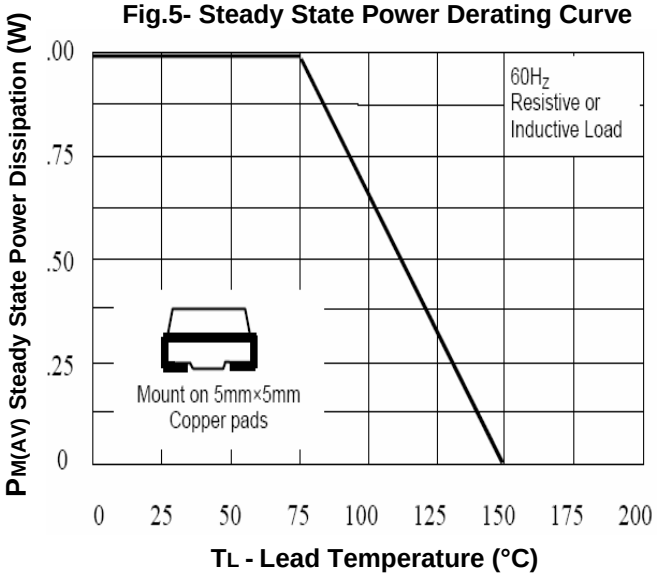
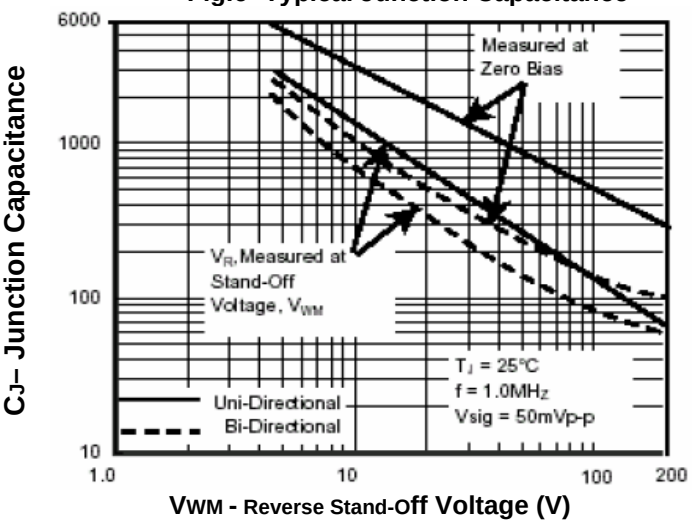
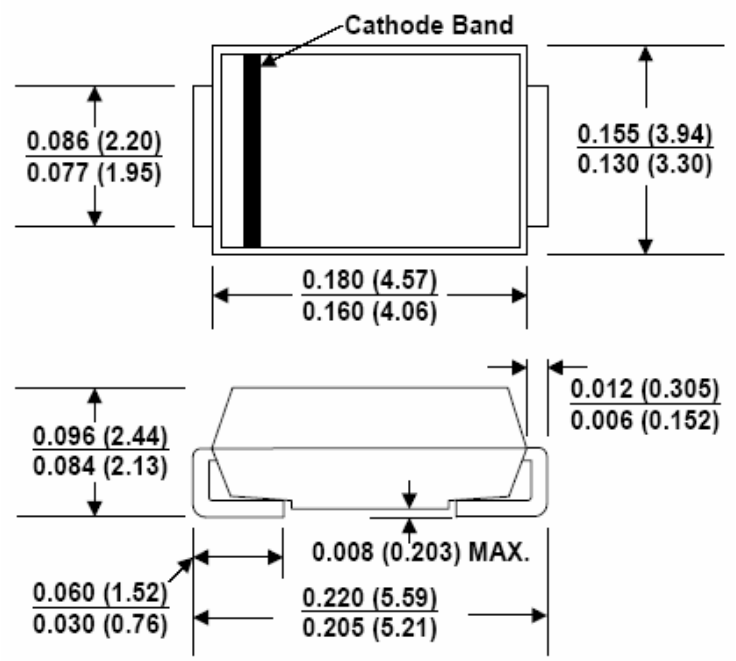


Fig.6- Typical Junction Capacitance



Dimensions in inches (mm)



SMB

How to contact us:

US HEADQUARTERS

28040 WEST HARRISON PARKAWAY, VALENCIA, CA 91355-4162
Tel: (800) TAITRON (800) 824-8766 (661) 257-6060
Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415
Email: taitron@taitroncomponents.com
Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P. 42970 MEXICO
Tel: +52-55-5560-1519
Fax: +52-55-5560-2190

TAITRON COMPONETS INCORPORATED E REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL
Tel: +55-11-5574-7949
Fax: +55-11-5572-0052

TAITRON COMPONETS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA
Tel: +86-21-5424-9942
Fax: +86-21-5424-9931