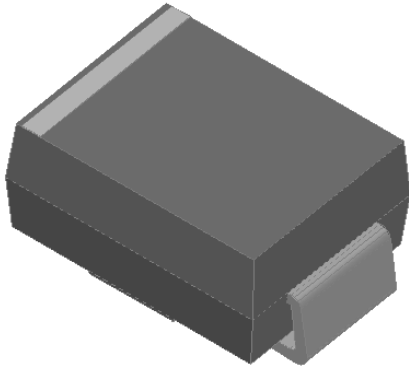




FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.1g / 0.0034oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 s waveform (Note1,Note2, Fig.1).	P_{PPM}	600	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 3, Fig4).	I_{FSM} (UNI)	100	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)	I_{PPM}	see Table 1	A
Typical Junction capacitance at VR=4V, f=1MHz	C_J	390	pF
ESD Voltage per IEC6100-4-2	V_{ESD1} V_{ESD2}	± 30 ± 30	kV
Typical Thermal Resistance Junction to Ambient(Note 2)	$R_{\theta JA}$	100	°C/W
Operating Junction Temperature and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2.
2. Mounted on 5 mm² (0.13mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
4. Peak pulse power waveform is 10/1000μS.

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

Part Number		V_{RWM} (V)	$V_{\text{BR}}(\text{V}) @ I_t$		I_t (mA)	V_c (V)	I_{ppm} (A)	I_R (μA)
Uni-polar	Bi-polar		Min	Max				
P6SMB6.8A	P6SMB6.8CA	5.8	6.45	7.14	10	10.5	58.1	1000
P6SMB7.5A	P6SMB7.5CA	6.4	7.13	7.88	10	11.3	54	500
P6SMB8.2A	P6SMB8.2CA	7.02	7.79	8.61	10	12.1	50.4	200
P6SMB9.1A	P6SMB9.1CA	7.78	8.65	9.55	1	13.4	45.5	50
P6SMB10A	P6SMB10CA	8.55	9.5	10.5	1	14.5	42.1	10
P6SMB11A	P6SMB11CA	9.4	10.5	11.6	1	15.6	39.1	5.0
P6SMB12A	P6SMB12CA	10.2	11.4	12.6	1	16.7	36.5	5.0
P6SMB13A	P6SMB13CA	11.1	12.4	13.7	1	18.2	33.5	1.0
P6SMB15A	P6SMB15CA	12.8	14.3	15.8	1	21.2	28.8	1.0
P6SMB16A	P6SMB16CA	13.6	15.2	16.8	1	22.5	27.1	1.0
P6SMB18A	P6SMB18CA	15.3	17.1	18.9	1	25.5	24.2	1.0
P6SMB20A	P6SMB20CA	17.1	19	21	1	27.7	22	1.0
P6SMB22A	P6SMB22CA	18.8	20.9	23.1	1	30.6	19.9	1.0
P6SMB24A	P6SMB24CA	20.5	22.8	25.2	1	33.2	18.4	1.0
P6SMB27A	P6SMB27CA	23.1	25.7	28.4	1	37.5	16.3	1.0
P6SMB30A	P6SMB30CA	25.6	28.5	31.5	1	41.4	14.7	1.0
P6SMB33A	P6SMB33CA	28.2	31.4	34.7	1	45.7	13.3	1.0
P6SMB36A	P6SMB36CA	30.8	34.2	37.8	1	49.9	12.2	1.0
P6SMB39A	P6SMB39CA	33.3	37.1	41	1	53.9	11.3	1.0
P6SMB43A	P6SMB43CA	36.8	40.9	45.2	1	59.3	10.3	1.0
P6SMB47A	P6SMB47CA	40.2	44.7	49.4	1	64.8	9.4	1.0
P6SMB51A	P6SMB51CA	43.6	48.5	53.6	1	70.1	8.7	1.0
P6SMB56A	P6SMB56CA	47.8	53.2	58.8	1	77	7.9	1.0
P6SMB62A	P6SMB62CA	53	58.9	65.1	1	85	7.2	1.0
P6SMB68A	P6SMB68CA	58.1	64.6	71.4	1	92	6.6	1.0
P6SMB75A	P6SMB75CA	64.1	71.3	78.8	1	103	5.9	1.0
P6SMB82A	P6SMB82CA	70.1	77.9	86.1	1	113	5.4	1.0
P6SMB91A	P6SMB91CA	77.8	86.5	95.5	1	125	4.9	1.0
P6SMB100A	P6SMB100CA	85.5	95	105	1	137	4.5	1.0
P6SMB110A	P6SMB110CA	94	105	116	1	152	4	1.0
P6SMB120A	P6SMB120CA	102	114	126	1	165	3.7	1.0
P6SMB130A	P6SMB130CA	111	124	137	1	179	3.4	1.0
P6SMB150A	P6SMB150CA	128	143	158	1	207	2.9	1.0
P6SMB160A	P6SMB160CA	136	152	168	1	219	2.8	1.0
P6SMB170A	P6SMB170CA	145	162	179	1	234	2.6	1.0
P6SMB180A	P6SMB180CA	154	171	189	1	246	2.5	1.0
P6SMB200A	P6SMB200CA	171	190	210	1	274	2.2	1.0
P6SMB220A	P6SMB220CA	185	209	231	1	328	1.9	1.0
P6SMB250A	P6SMB250CA	214	237	263	1	344	1.8	1.0
P6SMB300A	P6SMB300CA	256	285	315	1	414	1.5	1.0
P6SMB350A	P6SMB350CA	300	332	368	1	482	1.3	1.0
P6SMB400A	P6SMB400CA	342	380	420	1	548	1.1	1.0
P6SMB440A	P6SMB440CA	376	418	462	1	602	1	1.0
P6SMB480A	P6SMB480CA	408	456	504	1	658	0.9	1.0
P6SMB510A	P6SMB510CA	434	485	535	1	698	0.9	1.0
P6SMB530A	P6SMB530CA	451	503.5	556.5	1	725	0.8	1.0
P6SMB540A	P6SMB540CA	460	513	567	1	740	0.8	1.0
P6SMB550A	P6SMB550CA	468	522.5	577.5	1	760	0.8	1.0

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Peak Pulse Power Rating Curve

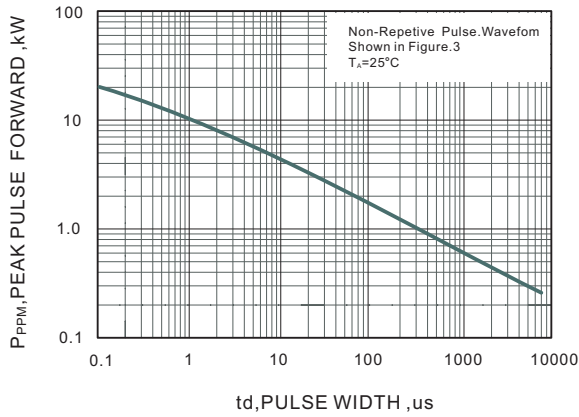


Fig.2 Forward Current Derating Curve

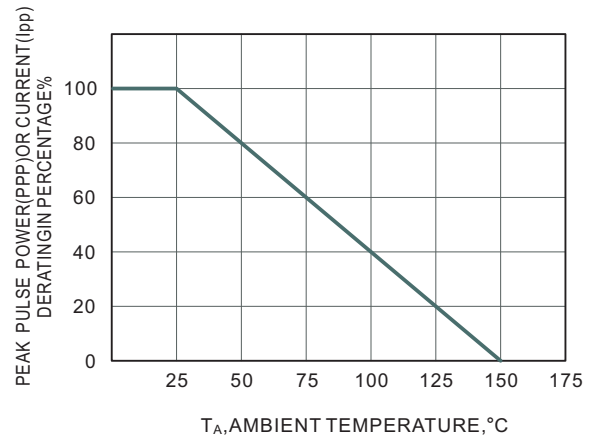


Fig.3 Pulse Waveform

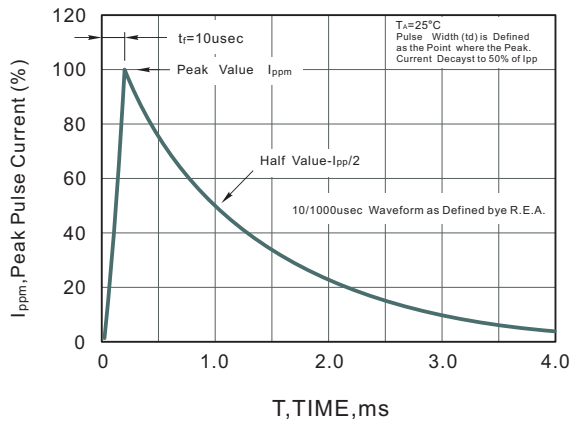
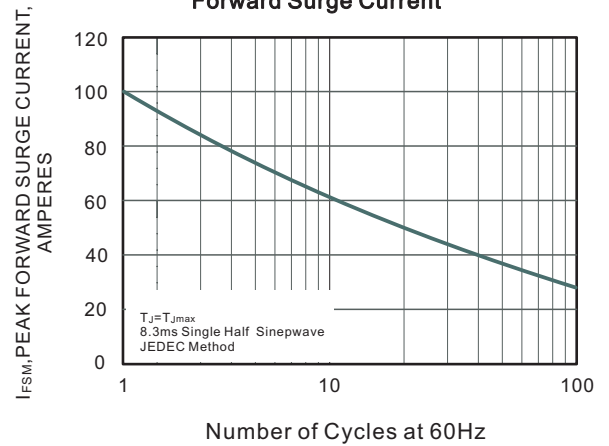


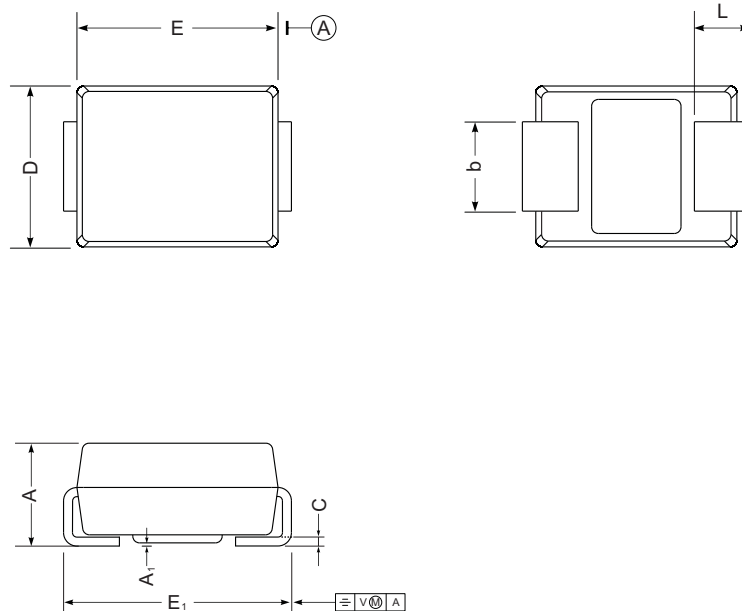
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMB



SMB mechanical data

UNIT		A	E	D	E ₁	A ₁	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.11
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.91
mil	max	96	185	155	220	7.9	59	12	83
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size

