

P6SMBF6.8A THRU P6SMBF550A

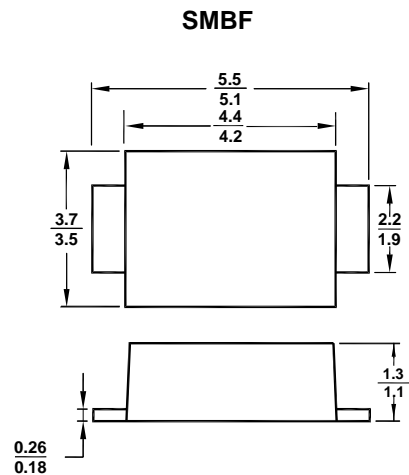
Surface Mount Transient Voltage Suppressors

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: SMBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end except Bipolar



All Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 μs waveform ^{1) 2) 4)}	P_{PPM}	600	W
Peak Pulse Current on 10/1000 μs waveform ¹⁾	I_{PPM}	see Table 1	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) ³⁾	I_{FSM}	100	A
Typical Thermal Resistance Junction to Ambient ²⁾	$R_{\theta JA}$	70	$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ Non-repetitive current pulse and derated above $T_a = 25\text{ }^\circ\text{C}$.

²⁾ Mounted on 5mm² copper pads to each terminal.

³⁾ Peak Forward Surge Current : 8.3ms single half sine-wave Superimposed on rated load (JEDEC method).

⁴⁾ Peak pulse power waveform is 10/1000 μs .

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Electrical Characteristics (Rating at $T_a = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Type	Marking		Working Peak Reverse Voltage	Breakdown Voltage			Maximum Clamping Voltage		Maximum Reverse Current
				V_{BR}		at I_T	V_C	at I_{PPM}	I_R at V_{RWM}
	Uni	Bi	V_{RWM} (V)	Min. (V)	Max. (V)	(mA)	Max. (V)	(A)	Max. (μA)
P6SMBF6.8A / CA	6V8A	6V8C	5.8	6.45	7.14	10	10.5	58.1	1000
P6SMBF7.5A / CA	7V5A	7V5C	6.4	7.13	7.88	10	11.3	54	500
P6SMBF8.2A / CA	8V2A	8V2C	7.02	7.79	8.61	10	12.1	50.4	200
P6SMBF9.1A / CA	9V1A	9V1C	7.78	8.65	9.55	1	13.4	45.5	50
P6SMBF10A / CA	10A	10C	8.55	9.5	10.5	1	14.5	42.1	10
P6SMBF11A / CA	11A	11C	9.4	10.5	11.6	1	15.6	39.1	5
P6SMBF12A / CA	12A	12C	10.2	11.4	12.6	1	16.7	36.5	5
P6SMBF13A / CA	13A	13C	11.1	12.4	13.7	1	18.2	33.5	1
P6SMBF15A / CA	15A	15C	12.8	14.3	15.8	1	21.2	28.8	1
P6SMBF16A / CA	16A	16C	13.6	15.2	16.8	1	22.5	27.1	1
P6SMBF18A / CA	18A	18C	15.3	17.1	18.9	1	25.2	24.2	1
P6SMBF20A / CA	20A	20C	17.1	19	21	1	27.7	22	1
P6SMBF22A / CA	22A	22C	18.8	20.9	23.1	1	30.6	19.9	1
P6SMBF24A / CA	24A	24C	20.5	22.8	25.2	1	33.2	18.4	1
P6SMBF27A / CA	27A	27C	23.1	25.7	28.4	1	37.5	16.3	1
P6SMBF30A / CA	30A	30C	25.6	28.5	31.5	1	41.4	14.7	1
P6SMBF33A / CA	33A	33C	28.2	31.4	34.7	1	45.7	13.3	1
P6SMBF36A / CA	36A	36C	30.8	34.2	37.8	1	49.9	12.2	1
P6SMBF39A / CA	39A	39C	33.3	37.1	41	1	53.9	11.3	1
P6SMBF43A / CA	43A	43C	36.8	40.9	45.2	1	59.3	10.3	1
P6SMBF47A / CA	47A	47C	40.2	44.7	49.4	1	64.8	9.4	1
P6SMBF51A / CA	51A	51C	43.6	48.5	53.6	1	70.1	8.7	1
P6SMBF56A / CA	56A	56C	47.8	53.2	58.8	1	77	7.9	1
P6SMBF62A / CA	62A	62C	53	58.9	65.1	1	85	7.2	1
P6SMBF68A / CA	68A	68C	58.1	64.6	71.4	1	92	6.6	1
P6SMBF75A / CA	75A	75C	64.1	71.3	78.8	1	103	5.9	1
P6SMBF82A / CA	82A	82C	70.1	77.9	86.1	1	113	5.4	1
P6SMBF91A / CA	91A	91C	77.8	86.5	95.5	1	125	4.9	1
P6SMBF100A / CA	100A	100C	85.5	95	105	1	137	4.5	1
P6SMBF110A / CA	110A	110C	94	105	116	1	152	4	1
P6SMBF120A / CA	120A	120C	102	114	126	1	165	3.7	1
P6SMBF130A / CA	130A	130C	111	124	137	1	179	3.4	1
P6SMBF150A / CA	150A	150C	128	143	158	1	207	2.9	1
P6SMBF160A / CA	160A	160C	136	152	168	1	219	2.8	1
P6SMBF170A / CA	170A	170C	145	162	179	1	234	2.6	1
P6SMBF180A / CA	180A	180C	154	171	189	1	246	2.5	1
P6SMBF200A / CA	200A	200C	171	190	210	1	274	2.2	1
P6SMBF220A / CA	220A	220C	185	209	231	1	328	1.9	1
P6SMBF250A / CA	250A	250C	214	237	263	1	344	1.8	1
P6SMBF300A / CA	300A	300C	256	285	315	1	414	1.5	1
P6SMBF350A / CA	350A	350C	300	332	368	1	482	1.3	1
P6SMBF400A / CA	400A	400C	342	380	420	1	548	1.1	1
P6SMBF440A / CA	440A	440C	376	418	462	1	602	1	1
P6SMBF480A / CA	480A	480C	408	456	504	1	658	0.9	1
P6SMBF510A / CA	510A	510C	434	485	535	1	698	0.9	1
P6SMBF530A / CA	530A	530C	477	503.5	556.5	1	725	0.8	1
P6SMBF540A / CA	540A	540C	486	513	567	1	740	0.8	1
P6SMBF550A / CA	550A	550C	495	522.5	577.5	1	760	0.8	1

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