

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

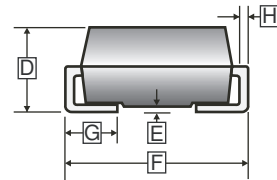
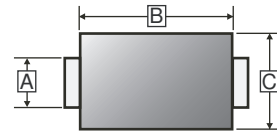
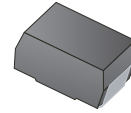
FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead-free component
- For the use in stabilizing and clipping circuits with high power rating

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	0.1	0.203
B	4.00	4.75	F	5.08	5.59
C	3.25	3.94	G	0.75	1.52
D	1.99	2.61	H	0.15	0.305

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC Power Dissipation@ T _L =75°C ¹	P _D	5	W
Maximum Forward Voltage@ I _F =200mA	V _F	1.2	V
Junction and Storage Temperature Range	T _J , T _{STG}	150, -55 ~ 150	°C

Notes:

1. Mounted on a 5mm x 5mm copper pad of a PCB.

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

Part Number	Marking Code	Zener Voltage		Maximum Zener Impedance				Maximum Reverse Current		Maximum DC Zener Current
		$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}
		V	mA	Ω	mA	Ω	mA	μA	V	mA
SMB5338B	5338B	5.1	240	1.5	240	400	1	1	1	930
SMB5339B	5339B	5.6	220	1	220	400	1	1	2	846
SMB5340B	5340B	6	200	1	200	300	1	1	3	790
SMB5341B	5341B	6.2	200	1	200	200	1	1	3	765
SMB5342B	5342B	6.8	175	1	175	200	1	10	5.2	700
SMB5343B	5343B	7.5	175	1.5	175	200	1	10	5.7	630
SMB5344B	5344B	8.2	150	1.5	150	200	1	10	6.2	580
SMB5345B	5345B	8.7	150	2	150	200	1	10	6.6	545
SMB5346B	5346B	9.1	150	2	150	150	1	7.5	6.9	520
SMB5347B	5347B	10	125	2	125	125	1	5	7.6	475
SMB5348B	5348B	11	125	2.5	125	125	1	5	8.4	430
SMB5349B	5349B	12	100	3	100	125	1	2	9.1	395
SMB5350B	5350B	13	100	3	100	100	1	1	9.9	365
SMB5351B	5351B	14	100	3	100	75	1	1	10.6	340
SMB5352B	5352B	15	75	3	75	75	1	1	11.5	315
SMB5353B	5353B	16	75	3	75	75	1	1	12.2	295
SMB5354B	5354B	17	70	3	70	75	1	0.5	12.9	280
SMB5355B	5355B	18	65	3	65	75	1	0.5	13.7	265
SMB5356B	5356B	19	65	3	65	75	1	0.5	14.4	250
SMB5357B	5357B	20	65	3	65	75	1	0.5	15.2	237
SMB5358B	5358B	22	50	4	50	75	1	0.5	16.7	216
SMB5359B	5359B	24	50	4	50	100	1	0.5	18.2	198
SMB5360B	5360B	25	50	4	50	110	1	0.5	19	190
SMB5361B	5361B	27	50	5	50	120	1	0.5	20.6	176
SMB5362B	5362B	28	50	6	50	130	1	0.5	21.2	170
SMB5363B	5363B	30	40	8	40	140	1	0.5	22.8	158
SMB5364B	5364B	33	40	10	40	150	1	0.5	25.1	144
SMB5365B	5365B	36	30	11	30	160	1	0.5	27.4	132
SMB5366B	5366B	39	30	14	30	170	1	0.5	29.7	122
SMB5367B	5367B	43	30	20	30	190	1	0.5	32.7	110
SMB5368B	5368B	47	25	25	25	210	1	0.5	35.8	100
SMB5369B	5369B	51	25	27	25	230	1	0.5	38.8	93
SMB5370B	5370B	56	20	35	20	280	1	0.5	42.6	86

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

Part Number	Marking Code	Zener Voltage		Maximum Zener Impedance				Maximum Reverse Current		Maximum DC Zener Current
		$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}
		V	mA	Ω	mA	Ω	mA	μA	V	mA
SMB5371B	5371B	60	20	40	20	350	1	0.5	42.5	79
SMB5372B	5372B	62	20	42	20	400	1	0.5	47.1	76
SMB5373B	5373B	68	20	44	20	500	1	0.5	51.7	70
SMB5374B	5374B	75	20	45	20	620	1	0.5	56	63
SMB5375B	5375B	82	15	65	15	720	1	0.5	62.2	58
SMB5376B	5376B	87	15	75	15	760	1	0.5	66	54.5
SMB5377B	5377B	91	15	75	15	760	1	0.5	69.2	52.5
SMB5378B	5378B	100	12	90	12	800	1	0.5	76	47.5
SMB5379B	5379B	110	12	125	12	1000	1	0.5	83.6	43
SMB5380B	5380B	120	10	170	10	1150	1	0.5	91.2	39.5
SMB5381B	5381B	130	10	190	10	1250	1	0.5	98.8	36.6
SMB5382B	5382B	140	8	230	8	1500	1	0.5	106	34
SMB5383B	5383B	150	8	330	8	1500	1	0.5	114	31.6
SMB5384B	5384B	160	8	350	8	1650	1	0.5	122	29.4
SMB5385B	5385B	170	8	380	8	1750	1	0.5	129	28
SMB5386B	5386B	180	5	430	5	1750	1	0.5	137	26.4
SMB5387B	5387B	190	5	450	5	1850	1	0.5	144	25
SMB5388B	5388B	200	5	480	5	1850	1	0.5	152	23.6

Notes:

1. The type numbers which are listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
2. The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method.

CHARACTERISTIC CURVES

Fig. 1 - Power Temperature Derating Curve

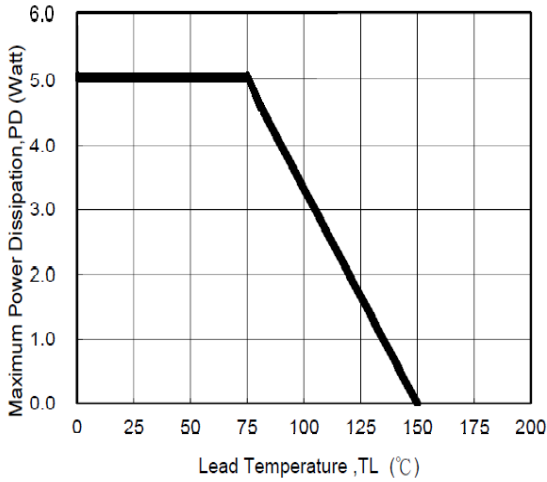


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

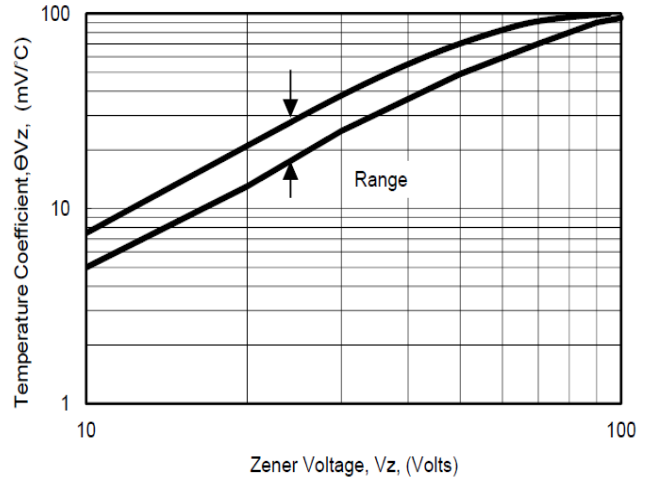


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

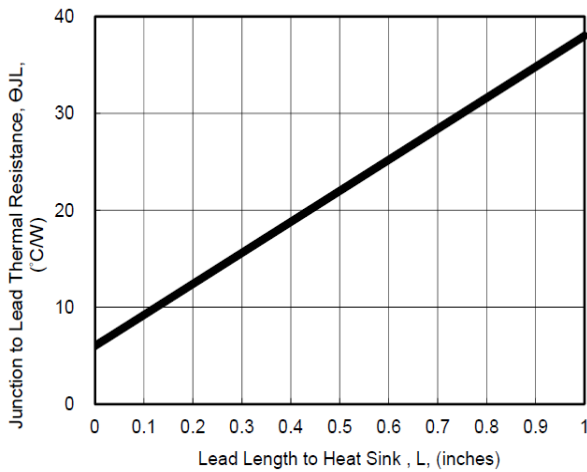


FIG.4 - Maximum Surge Power

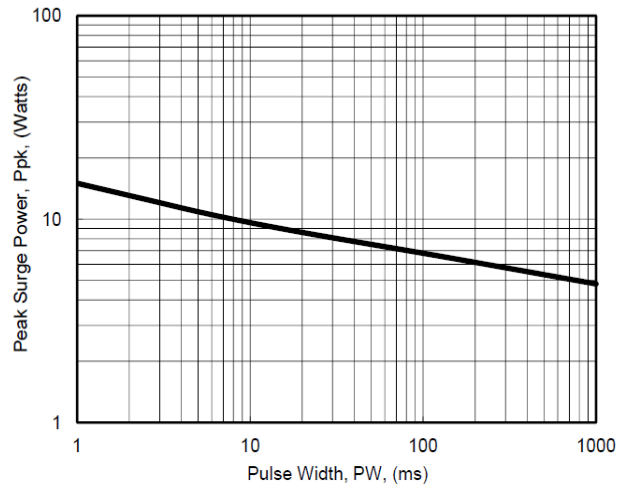


FIG.5 - Typical Thermal Response L, Lead Length=3/8inch

