

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

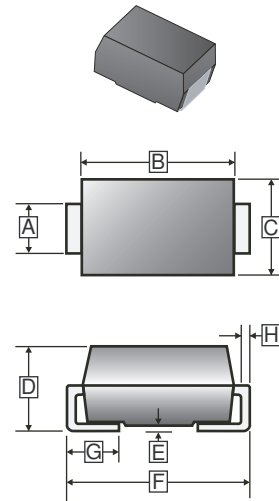
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMB	3K	13 inch

ORDER INFORMATION

Part Number	Type
SMB53xxB-C Series	Lead (Pb)-free and Halogen-free

SMB



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.85	2.20	E	-	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	0.31

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

Parameter	Symbol	Ratings	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×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
SMB5339B-C	5339B	5.6	220	1	220	400	1	1	2	846
SMB5340B-C	5340B	6	200	1	200	300	1	1	3	790
SMB5341B-C	5341B	6.2	200	1	200	200	1	1	3	765
SMB5342B-C	5342B	6.8	175	1	175	200	1	10	5.2	700
SMB5343B-C	5343B	7.5	175	1.5	175	200	1	10	5.7	630
SMB5344B-C	5344B	8.2	150	1.5	150	200	1	10	6.2	580
SMB5345B-C	5345B	8.7	150	2	150	200	1	10	6.6	545
SMB5346B-C	5346B	9.1	150	2	150	150	1	7.5	6.9	520
SMB5347B-C	5347B	10	125	2	125	125	1	5	7.6	475
SMB5348B-C	5348B	11	125	2.5	125	125	1	5	8.4	430
SMB5349B-C	5349B	12	100	3	100	125	1	2	9.1	395
SMB5350B-C	5350B	13	100	3	100	100	1	1	9.9	365
SMB5351B-C	5351B	14	100	3	100	75	1	1	10.6	340
SMB5352B-C	5352B	15	75	3	75	75	1	1	11.5	315
SMB5353B-C	5353B	16	75	3	75	75	1	1	12.2	295
SMB5354B-C	5354B	17	70	3	70	75	1	0.5	12.9	280
SMB5355B-C	5355B	18	65	3	65	75	1	0.5	13.7	265
SMB5356B-C	5356B	19	65	3	65	75	1	0.5	14.4	250
SMB5357B-C	5357B	20	65	3	65	75	1	0.5	15.2	237
SMB5358B-C	5358B	22	50	4	50	75	1	0.5	16.7	216
SMB5359B-C	5359B	24	50	4	50	100	1	0.5	18.2	198
SMB5360B-C	5360B	25	50	4	50	110	1	0.5	19	190
SMB5361B-C	5361B	27	50	5	50	120	1	0.5	20.6	176
SMB5362B-C	5362B	28	50	6	50	130	1	0.5	21.2	170
SMB5363B-C	5363B	30	40	8	40	140	1	0.5	22.8	158
SMB5364B-C	5364B	33	40	10	40	150	1	0.5	25.1	144
SMB5365B-C	5365B	36	30	11	30	160	1	0.5	27.4	132
SMB5366B-C	5366B	39	30	14	30	170	1	0.5	29.7	122
SMB5367B-C	5367B	43	30	20	30	190	1	0.5	32.7	110
SMB5368B-C	5368B	47	25	25	25	210	1	0.5	35.8	100
SMB5369B-C	5369B	51	25	27	25	230	1	0.5	38.8	93
SMB5370B-C	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-C	5371B	60	20	40	20	350	1	0.5	42.5	79
SMB5372B-C	5372B	62	20	42	20	400	1	0.5	47.1	76
SMB5373B-C	5373B	68	20	44	20	500	1	0.5	51.7	70
SMB5374B-C	5374B	75	20	45	20	620	1	0.5	56	63
SMB5375B-C	5375B	82	15	65	15	720	1	0.5	62.2	58
SMB5376B-C	5376B	87	15	75	15	760	1	0.5	66	54.5
SMB5377B-C	5377B	91	15	75	15	760	1	0.5	69.2	52.5
SMB5378B-C	5378B	100	12	90	12	800	1	0.5	76	47.5
SMB5379B-C	5379B	110	12	125	12	1000	1	0.5	83.6	43
SMB5380B-C	5380B	120	10	170	10	1150	1	0.5	91.2	39.5
SMB5381B-C	5381B	130	10	190	10	1250	1	0.5	98.8	36.6
SMB5382B-C	5382B	140	8	230	8	1500	1	0.5	106	34
SMB5383B-C	5383B	150	8	330	8	1500	1	0.5	114	31.6
SMB5384B-C	5384B	160	8	350	8	1650	1	0.5	122	29.4
SMB5385B-C	5385B	170	8	380	8	1750	1	0.5	129	28
SMB5386B-C	5386B	180	5	430	5	1750	1	0.5	137	26.4
SMB5387B-C	5387B	190	5	450	5	1850	1	0.5	144	25
SMB5388B-C	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

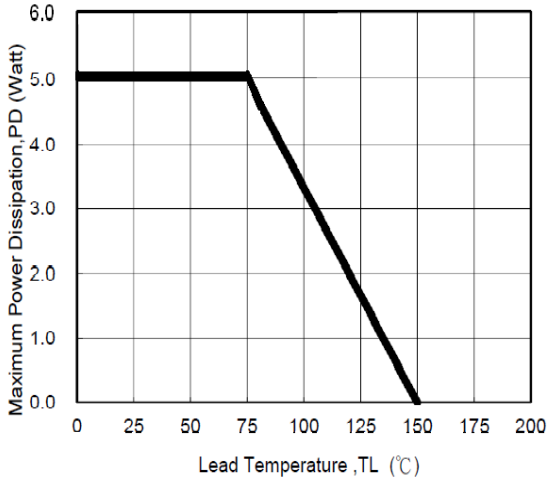


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

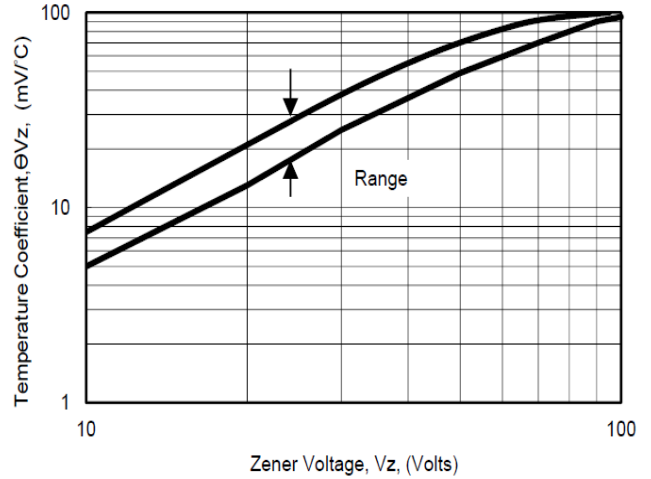


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

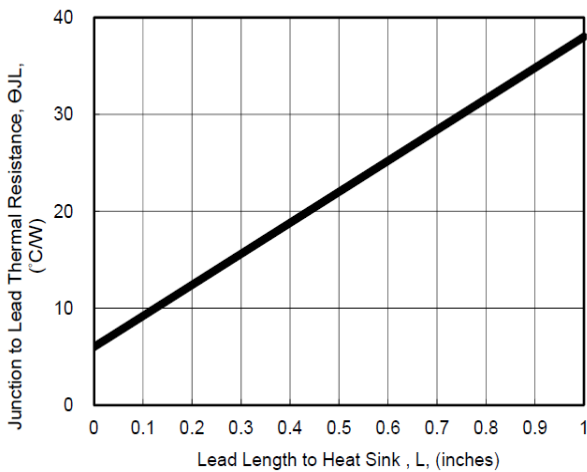


FIG.4 - Maximum Surge Power

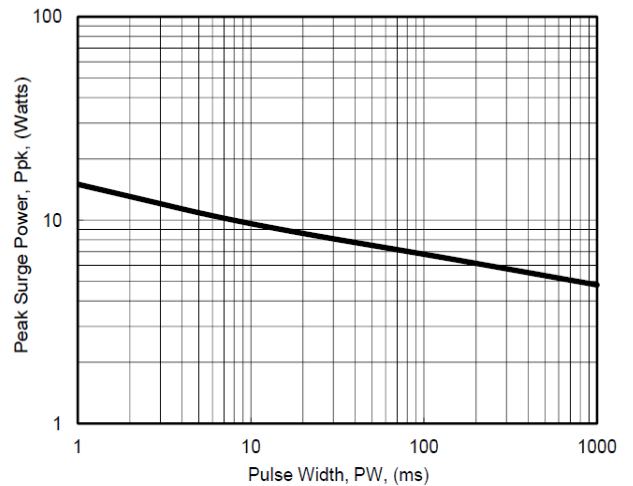


FIG.5 - Typical Thermal Response L, Lead Length=3/8inch

