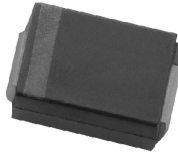


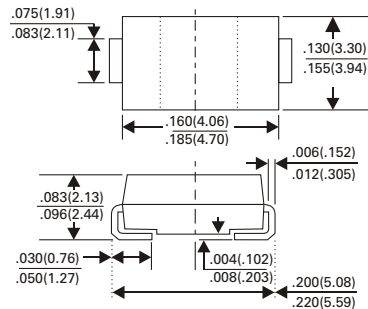
# SMB5341B thru SMB5388B

## SURFACE MOUNT ZENER TYPE

### SURFACE MOUNT ZENER DIODES 5.0 WATTS



SMB/DO-214AA



Dimensions in inches and (millimeters)

#### FEATURES

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

#### MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

#### MAXIMUM RATINGS (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	UNIT
DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note 1)	$P_D$	5.0	Watts
Maximum Forward Voltage at $I_F = 1\text{ A}$ .	$V_F$	1.2	Volts
Junction Temperature Range	$T_J$	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 175	$^\circ\text{C}$

**Note:**

(1)  $T_L$  = Lead temperature at 3/8 " (9.5mm) from body.

# SMB5341B thru SMB5388B

## SURFACE MOUNT ZENER TYPE

ZENER 5W SERIES	DEVICE MARKING CODE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		VZ @ IZT	IZT	ZZT @ IZT	ZZK @ IZK	IZK	IR @ VR		IZM
		(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
SMB5341B	341B	6.2	200	1.0	200	1.0	1.0	3.0	765
SMB5342B	342B	6.8	175	1.0	200	1.0	10.0	5.2	700
SMB5343B	343B	7.5	175	1.5	200	1.0	10.0	5.7	630
SMB5344B	344B	8.2	150	1.5	200	1.0	10.0	6.2	580
SMB5345B	345B	8.7	150	2.0	200	1.0	10.0	6.6	545
SMB5346B	346B	9.1	150	2.0	150	1.0	7.5	6.9	520
SMB5347B	347B	10	125	2.0	125	1.0	5.0	7.6	475
SMB5348B	348B	11	125	2.5	125	1.0	5.0	8.4	430
SMB5349B	349B	12	100	2.5	125	1.0	2.0	9.1	395
SMB5350B	350B	13	100	2.5	100	1.0	1.0	9.9	365
SMB5351B	351B	14	100	2.5	75	1.0	1.0	10.6	340
SMB5352B	352B	15	75	2.5	75	1.0	1.0	11.5	315
SMB5353B	353B	16	75	2.5	75	1.0	1.0	12.2	295
SMB5354B	354B	17	70	2.5	75	1.0	0.5	12.9	280
SMB5355B	355B	18	65	2.5	75	1.0	0.5	13.7	265
SMB5356B	356B	19	65	3.0	75	1.0	0.5	14.4	250
SMB5357B	357B	20	65	3.0	75	1.0	0.5	15.2	237
SMB5358B	358B	22	50	3.5	75	1.0	0.5	16.7	216
SMB5359B	359B	24	50	3.5	100	1.0	0.5	18.2	198
SMB5360B	360B	25	50	4.0	110	1.0	0.5	19.0	190
SMB5361B	361B	27	50	5.0	120	1.0	0.5	20.6	176
SMB5362B	362B	28	50	6.0	130	1.0	0.5	21.2	170
SMB5363B	363B	30	40	8.0	140	1.0	0.5	22.8	158
SMB5364B	364B	33	40	10	150	1.0	0.5	25.1	144
SMB5365B	365B	36	30	11	160	1.0	0.5	27.4	132
SMB5366B	366B	39	30	14	170	1.0	0.5	29.7	122
SMB5367B	367B	43	30	20	190	1.0	0.5	32.7	110
SMB5368B	368B	47	25	25	210	1.0	0.5	35.8	100
SMB5369B	369B	51	25	27	230	1.0	0.5	38.8	93.0
SMB5370B	370B	56	20	35	280	1.0	0.5	42.6	86.0
SMB5371B	371B	60	20	40	350	1.0	0.5	45.5	79.0
SMB5372B	372B	62	20	42	400	1.0	0.5	47.1	76.0
SMB5373B	373B	68	20	44	500	1.0	0.5	51.7	70.0
SMB5374B	374B	75	20	45	620	1.0	0.5	56.0	63.0
SMB5375B	375B	82	15	65	720	1.0	0.5	62.2	58.0
SMB5376B	376B	87	15	75	760	1.0	0.5	66.0	54.5
SMB5377B	377B	91	15	75	760	1.0	0.5	69.2	52.5
SMB5378B	378B	100	12	90	800	1.0	0.5	76.0	47.5
SMB5379B	379B	110	12	125	1000	1.0	0.5	83.6	43.0
SMB5380B	380B	120	10	170	1150	1.0	0.5	91.2	39.5
SMB5381B	381B	130	10	190	1250	1.0	0.5	98.8	36.6
SMB5382B	382B	140	8.0	230	1500	1.0	0.5	106.0	34.0
SMB5383B	383B	150	8.0	330	1500	1.0	0.5	114.0	31.6
SMB5384B	384B	160	8.0	350	1650	1.0	0.5	122.0	29.4
SMB5385B	385B	170	8.0	380	1750	1.0	0.5	129.0	28.0
SMB5386B	386B	180	5.0	430	1750	1.0	0.5	137.0	26.4
SMB5387B	387B	190	5.0	450	1850	1.0	0.5	144.0	25.0
SMB5388B	388B	200	5.0	480	1850	1.0	0.5	152.0	23.6

**Notes :**

- (1) The type number 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

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## SURFACE MOUNT ZENER TYPE

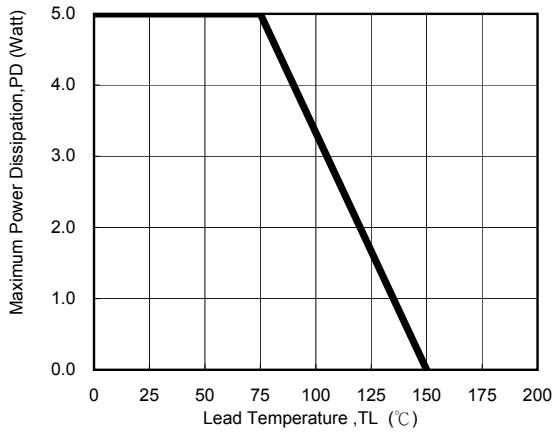


Fig. 1 - Power Temperature Derating Curve

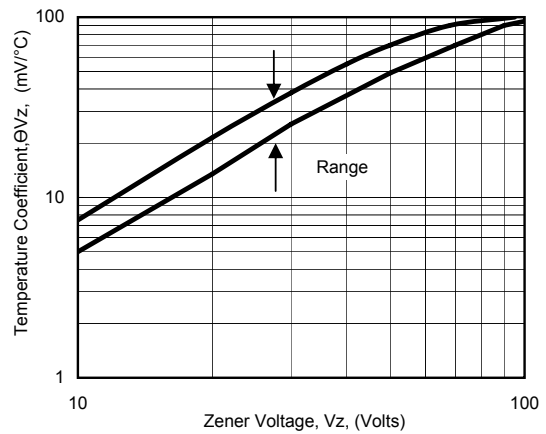


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

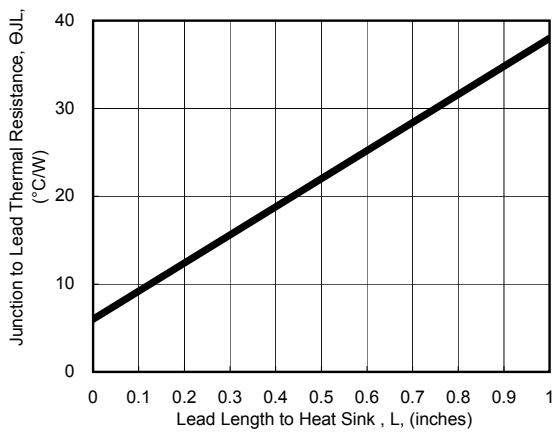


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

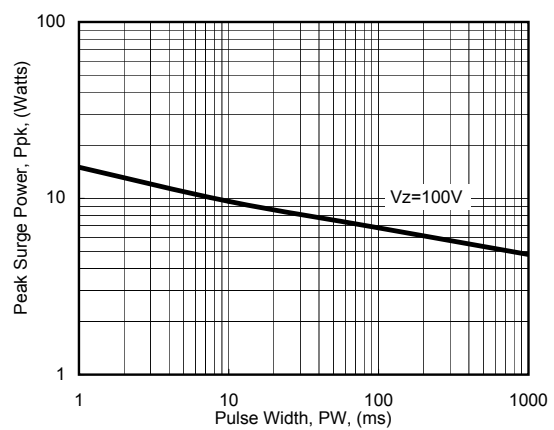


Fig. 4 - Maximum Surge Power

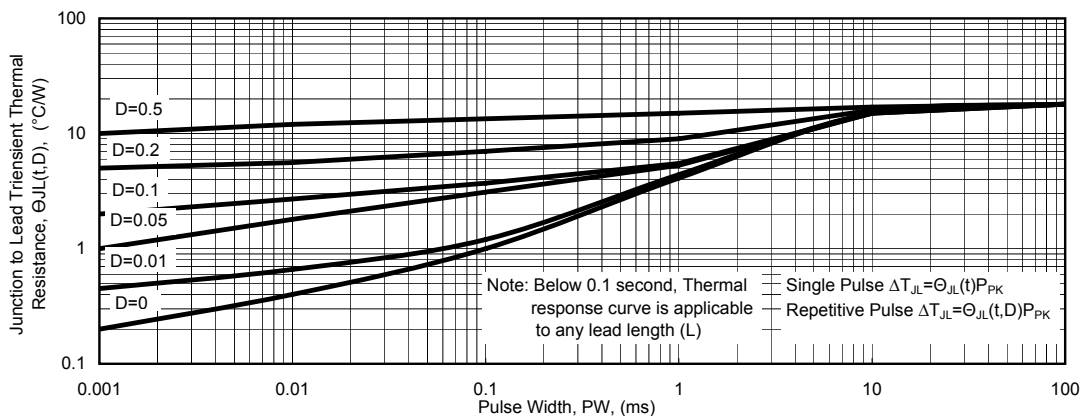


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch