



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SMB5341B

THRU

SMB5388B

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE RANGE - 6.2 to 200 Volts

POWER - 5.0 Watts

FEATURES

- * Voltage Range:6.2V to 200V
- * Build-in strain relief
- * Glass passivated junction
- * Low inductance
- * Excellent clamping capability
- * Low profile package

MECHANICAL DATA

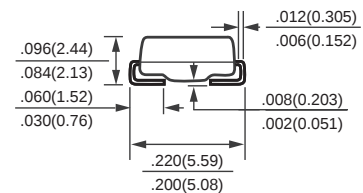
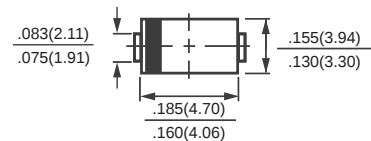
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity:As Marked
- * Mounting position: Any
- * Weight: 0.093 gram approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



SMB(DO-214AA)



Dimensions in inches(millimeters)

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation (Notes 1) at Tamb=25°C	Ptot	5	W
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	IFSM	15	Amps
Maximum Forward Voltage at IF=500mA	VF	1.2	Volts
Operating and Storage Temperature	TJ,Tstg	-55 to + 150	°C

Notes: 1. Mounted on 5.0mm² (.013mm thick) land areas.

2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

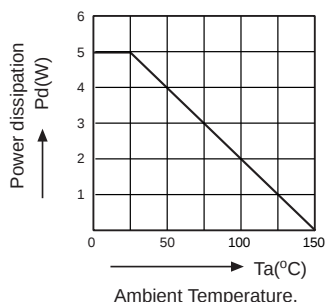


Fig. 1 - Changes in the power dissipation due to the ambient temperature.

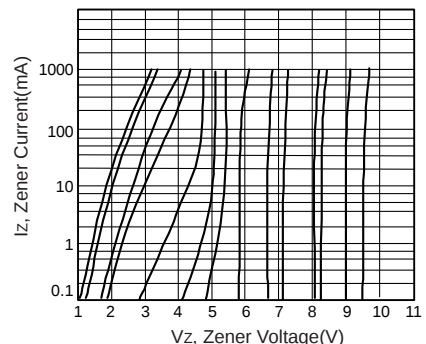


Fig. 2 - $V_z=6.8$ Thru 10 Volts

RATING AND CHARACTERISTIC CURVES (SMB5341B THRU SMB5388B)

TYPE	Nominal Zener Voltage	Zener Test Current	Maximum Zener Impedance		IZK	Maximum Reverse Leakage Current		Maximum DC Zener Current IZM mA
	VZ@IZT	IZT	ZZT@IZT	ZZT@IZK		IR	@VR	
	Volts	mA	Ohms	Ohms		μA	Volts	
SMB5341B	6.2	200	1.0	200	1	1.0	3.0	765.0
SMB5342B	6.8	175	1.0	200	1	10.0	5.2	700.0
SMB5343B	7.5	175	1.5	200	1	10.0	5.7	630.0
SMB5344B	8.2	150	1.5	200	1	10.0	6.2	580.0
SMB5345B	8.7	150	2.0	200	1	10.0	6.6	545.0
SMB5346B	9.1	150	2.0	150	1	7.5	6.9	520.0
SMB5347B	10	125	2.0	125	1	5.0	7.6	475.0
SMB5348B	11	125	2.5	125	1	5.0	8.4	430.0
SMB5349B	12	100	2.5	125	1	2.0	9.1	395.0
SMB5350B	13	100	2.5	100	1	1.0	9.9	365.0
SMB5352B	15	75	2.5	75	1	1.0	11.5	315.0
SMB5353B	16	75	2.5	75	1	1.0	12.2	295.0
SMB5355B	18	65	2.5	75	1	0.5	13.7	265.0
SMB5357B	20	65	3.0	75	1	0.5	15.2	237.0
SMB5358B	22	50	3.5	75	1	0.5	16.7	216.0
SMB5359B	24	50	3.5	100	1	0.5	18.2	198.0
SMB5361B	27	50	5.0	120	1	0.5	20.6	176.0
SMB5363B	30	40	8.0	140	1	0.5	22.8	158.0
SMB5364B	33	40	10	150	1	0.5	25.1	144.0
SMB5365B	36	30	11	160	1	0.5	27.4	132.0
SMB5366B	39	30	14	170	1	0.5	29.7	122.0
SMB5367B	43	30	20	190	1	0.5	32.7	110.0
SMB5368B	47	25	25	210	1	0.5	35.8	100.0
SMB5369B	51	25	27	230	1	0.5	38.8	93.0
SMB5370B	56	20	35	280	1	0.5	42.6	86.0
SMB5372B	62	20	42	400	1	0.5	47.1	76.0
SMB5373B	68	20	44	500	1	0.5	51.7	70.0
SMB5374B	75	20	45	620	1	0.5	56.0	63.0
SMB5375B	82	15	65	720	1	0.5	62.2	58.0
SMB5377B	91	15	75	760	1	0.5	69.2	52.5
SMB5378B	100	12	90	800	1	0.5	76.0	47.5
SMB5379B	110	12	125	1000	1	0.5	83.6	43.0
SMB5380B	120	10	170	1150	1	0.5	91.2	39.5
SMB5381B	130	10	190	1250	1	0.5	98.8	36.6
SMB5383B	150	8	330	1500	1	0.5	114.0	31.6
SMB5384B	160	8	350	1650	1	0.5	122.0	29.4
SMB5386B	180	5	430	1750	1	0.5	137.0	26.4
SMB5388B	200	5	480	1850	1	0.5	152.0	23.6

NOTE: Standard Zener Voltage Tolerance $\pm 5\%$

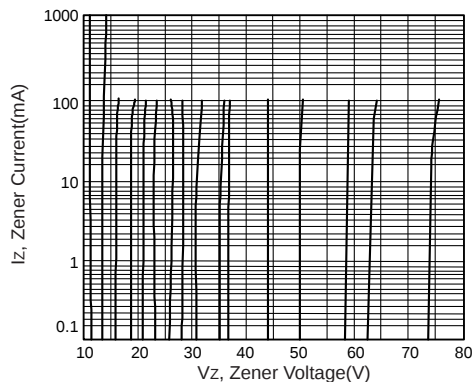


Fig. 3 - Vz=11 Thru 75 Volts

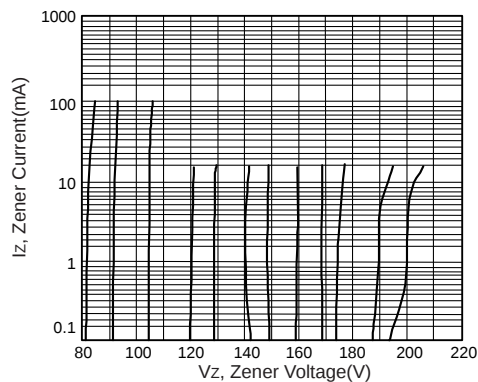


Fig. 4 - Vz=82 Thru 200 Volts



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