



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SMC5341B  
THRU  
SMC5388B

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

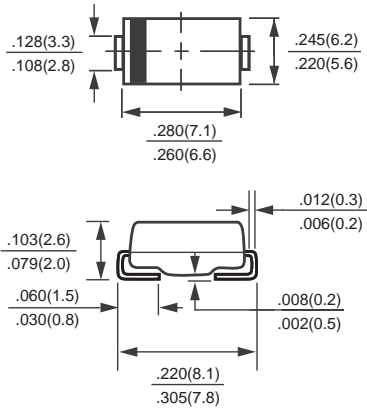
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 0.24 gram approx.

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%.



SMC(DO-214AB)



Dimensions in inches(millimeters)

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation (Notes 1) at Tamb=25°C	P <sub>tot</sub>	5	W
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	I <sub>FSM</sub>	15	Amps
Maximum Forward Voltage at I <sub>F</sub> =500mA	V <sub>F</sub>	1.2	Volts
Operating and Storage Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to + 150	°C

Notes: 1. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

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

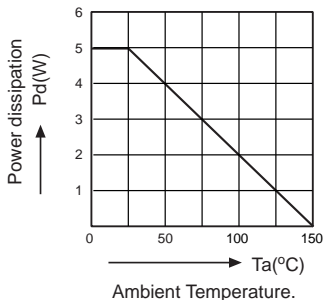


Fig. 1 - Changes in the power dissipation due to the ambient temperature.

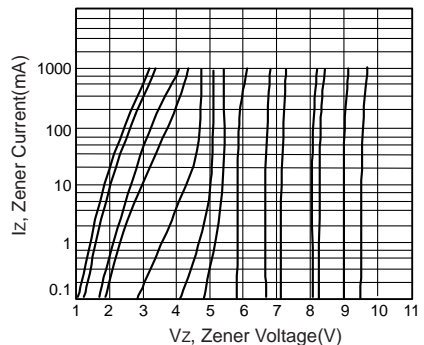


Fig. 2 - V<sub>Z</sub>=6.8 Thru 10 Volts

# RATING AND CHARACTERISTIC CURVES (SMC5341B THRU SMC5388B)

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	
SMC5341B	6.2	200	1.0	200	1	1.0	3.0	765.0
SMC5342B	6.8	175	1.0	200	1	10.0	5.2	700.0
SMC5343B	7.5	175	1.5	200	1	10.0	5.7	630.0
SMC5344B	8.2	150	1.5	200	1	10.0	6.2	580.0
SMC5345B	8.7	150	2.0	200	1	10.0	6.6	545.0
SMC5346B	9.1	150	2.0	150	1	7.5	6.9	520.0
SMC5347B	10	125	2.0	125	1	5.0	7.6	475.0
SMC5348B	11	125	2.5	125	1	5.0	8.4	430.0
SMC5349B	12	100	2.5	125	1	2.0	9.1	395.0
SMC5350B	13	100	2.5	100	1	1.0	9.9	365.0
SMC5352B	15	75	2.5	75	1	1.0	11.5	315.0
SMC5353B	16	75	2.5	75	1	1.0	12.2	295.0
SMC5355B	18	65	2.5	75	1	0.5	13.7	265.0
SMC5357B	20	65	3.0	75	1	0.5	15.2	237.0
SMC5358B	22	50	3.5	75	1	0.5	16.7	216.0
SMC5359B	24	50	3.5	100	1	0.5	18.2	198.0
SMC5361B	27	50	5.0	120	1	0.5	20.6	176.0
SMC5363B	30	40	8.0	140	1	0.5	22.8	158.0
SMC5364B	33	40	10	150	1	0.5	25.1	144.0
SMC5365B	36	30	11	160	1	0.5	27.4	132.0
SMC5366B	39	30	14	170	1	0.5	29.7	122.0
SMC5367B	43	30	20	190	1	0.5	32.7	110.0
SMC5368B	47	25	25	210	1	0.5	35.8	100.0
SMC5369B	51	25	27	230	1	0.5	38.8	93.0
SMC5370B	56	20	35	280	1	0.5	42.6	86.0
SMC5372B	62	20	42	400	1	0.5	47.1	76.0
SMC5373B	68	20	44	500	1	0.5	51.7	70.0
SMC5374B	75	20	45	620	1	0.5	56.0	63.0
SMC5375B	82	15	65	720	1	0.5	62.2	58.0
SMC5377B	91	15	75	760	1	0.5	69.2	52.5
SMC5378B	100	12	90	800	1	0.5	76.0	47.5
SMC5379B	110	12	125	1000	1	0.5	83.6	43.0
SMC5380B	120	10	170	1150	1	0.5	91.2	39.5
SMC5381B	130	10	190	1250	1	0.5	98.8	36.6
SMC5383B	150	8	330	1500	1	0.5	114.0	31.6
SMC5384B	160	8	350	1650	1	0.5	122.0	29.4
SMC5386B	180	5	430	1750	1	0.5	137.0	26.4
SMC5388B	200	5	480	1850	1	0.5	152.0	23.6

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

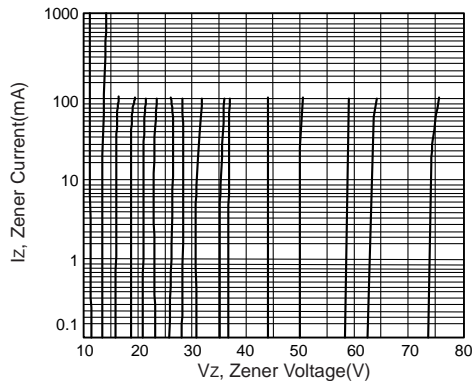


Fig. 3 - Vz=11 Thru 75 Volts

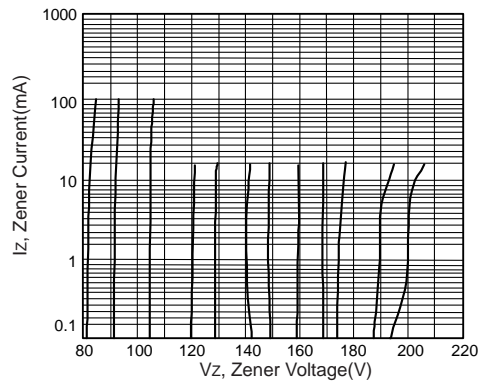


Fig. 4 - Vz=82 Thru 200 Volts

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