



DATA SHEET

1SMC5348 SERIES

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 11 to 39 Volts **CURRENT** 5.0 Watts

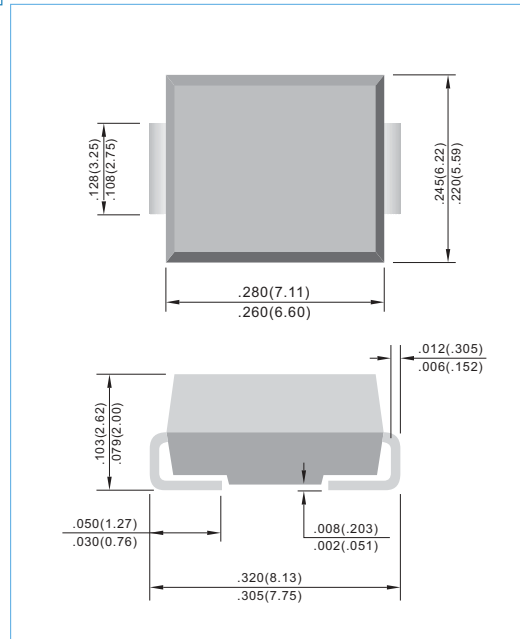
SMC/DO-214AB Unit: inch (mm)

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Typical I_D less than 1.0 μ A above 13V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: JEDEC DO-214AB, Molded plastic over passivated junction.
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes positive end (cathode)
Standard Packaging: 16mm tape (EIA-481)
Weight: 0.007 ounce, 0.21 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
DC Power Dissipation on TL=75°C ,Measure at Zero Lead Length Derate above 50°C (NOTE 1)	P_D	5.0 40	Watts mW / °C
Operating Junction and Storage Temperature Range	T_J , T_{STG}	-55 to +150	°C

NOTE:

1. Mounted on 8.0mm² copper pads to each terminal.



Part Number	Marking Code	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current	
		V _Z @ I _{ZT}			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
		Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	uA	V
5.0 Watt Zener										
1SMC5348	348B	11.0	10.5	11.6	2.5	125.0	125	1.00	5.0	8.4
1SMC5349	349B	12.0	11.4	12.6	2.5	100.0	125	1.00	2.0	9.1
1SMC5350	350B	13.0	12.4	13.7	2.5	100.0	100	1.00	1.0	9.9
1SMC5351	351B	14.0	13.3	14.7	2.5	100.0	75	1.00	1.0	10.6
1SMC5352	352B	15.0	14.3	15.8	2.5	75.0	75	1.00	1.0	11.5
1SMC5353	353B	16.0	15.2	16.8	2.5	75.0	75	1.00	1.0	12.2
1SMC5354	354B	17.0	16.2	17.9	2.5	70.0	75	1.00	0.5	12.9
1SMC5355	355B	18.0	17.1	18.9	2.5	65.0	75	1.00	0.5	13.7
1SMC5356	356B	19.0	18.1	20.0	3.0	65.0	75	1.00	0.5	14.4
1SMC5357	357B	20.0	19.0	21.0	3.0	65.0	75	1.00	0.5	15.2
1SMC5358	358B	22.0	20.9	23.1	3.5	50.0	75	1.00	0.5	16.7
1SMC5359	359B	24.0	22.8	25.2	3.5	50.0	100	1.00	0.5	18.2
1SMC5360	360B	25.0	23.8	26.3	4.0	50.0	110	1.00	0.5	19.0
1SMC5361	361B	27.0	25.7	28.4	5.0	50.0	120	1.00	0.5	20.6
1SMC5362	362B	28.0	26.6	29.4	6.0	50.0	130	1.00	0.5	21.2
1SMC5363	363B	30.0	28.5	31.5	8.0	40.0	140	1.00	0.5	22.8
1SMC5364	364B	33.0	31.4	34.7	10.0	40.0	150	1.00	0.5	25.1
1SMC5365	365B	36.0	34.2	37.8	11.0	30.0	160	1.00	0.5	27.4
1SMC5366	366B	39.0	37.1	41.0	14.0	30.0	170	1.00	0.5	29.7



RATING AND CHARACTERISTIC CURVES

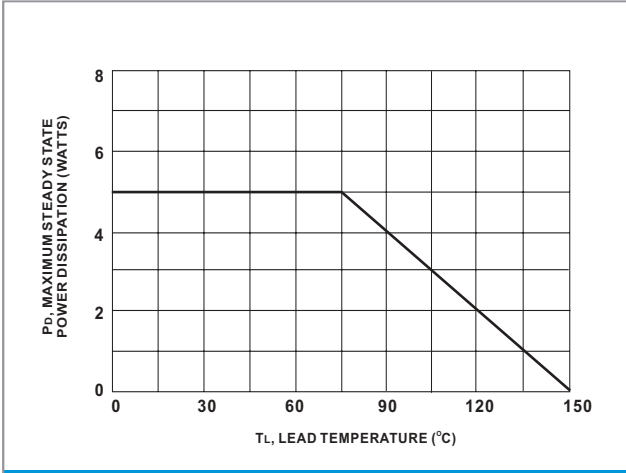


Fig.1 Power temperature Derating Curve

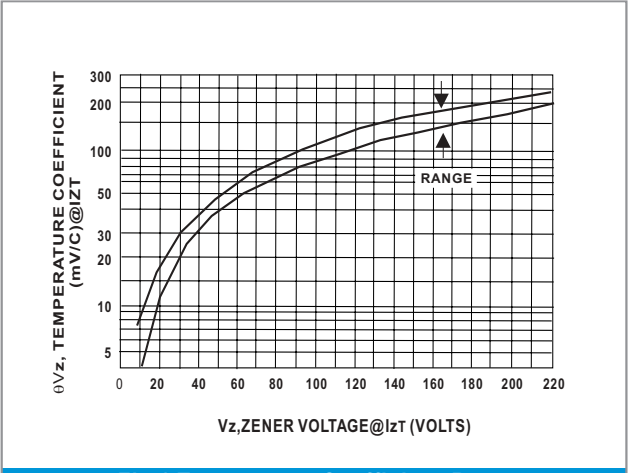


Fig.2 Temperature Coefficient-Range for Units 11 to 39 Volts

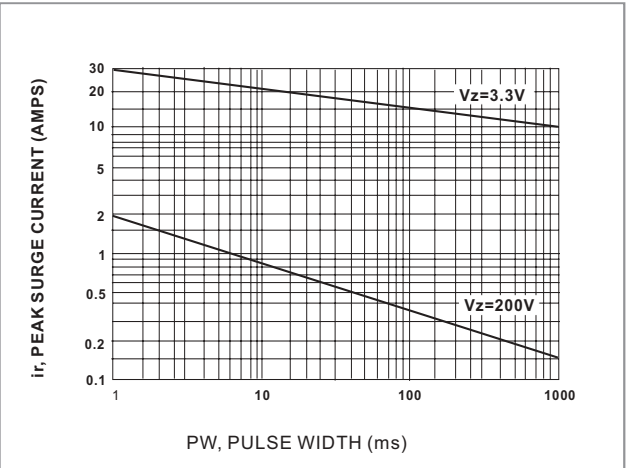


Fig.3 Peak Surge Current versus Pulse Width

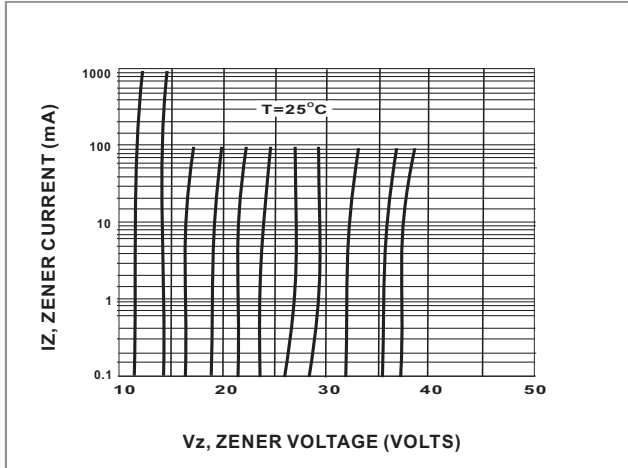


Fig.4 Zener Voltage versus Zener Current Vz=11 thru 39 Volts