1SMB5926~1SMB5939

GLASS PASSIVATED JUNCTION SILICON ZENER DIODES

Voltage Range 11-39 Volts
Power 1.5mWatts

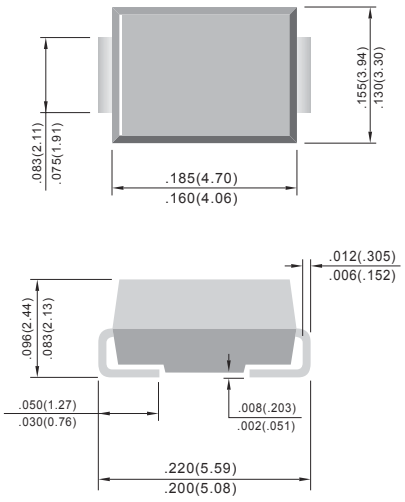
Features

* Low profile package
* Built-in strain relief
* Low inductance
* 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: 99% Sn above can meet Rohs environment substance directive request

Mechanical Data

Case: JEDEC DO-214AA, Molded plastic over passivated junction
Terminals: Solder plated, solderable per MIL-STD-202G, Method 208
Polarity: Indicated by cathode band
Standard packaging: 12mm tape (EIA-481)
Weight: 0.003 ounce, 0.093 gram

SMB/DO-214AA



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
DC Power Dissipation on TA=75 °C ,Measure at Zero Lead Length Derate above 75°C (NOTE 1)	P_D	1. 5	Watts
Operating Junction and StorageTemperature Range	T_J , T_{STG}	-50 to +150	°C

NOTES:

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

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Part Number	Marking Code	V_Z @ I_{ZT}			Maximum Zener Impedance				Maximum Leakage Current		Package
					Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @V_R		
		Nom. V	Min. V	Max. V	O	mA	O	mA	uA	V	
1.5 Watt ZENER DIODES											
1SMB5926	926B	11.0	10.5	11.6	5.5	34.1	550	0.25	1.0	8.4	SMB
1SMB5927	927B	12.0	11.4	12.6	6.5	31.2	550	0.25	1.0	9.1	SMB
1SMB5928	928B	13.0	12.4	13.7	7.0	28.8	550	0.25	1.0	9.9	SMB
1SMB5929	929B	15.0	14.3	15.8	9.0	25.0	600	0.25	1.0	11.4	SMB
1SMB5930	930B	16.0	15.2	16.8	10.0	23.4	600	0.25	1.0	12.2	SMB
1SMB5931	931B	18.0	17.1	18.9	12.0	20.8	650	0.25	1.0	13.7	SMB
1SMB5932	932B	20.0	19.0	21.0	14.0	18.7	650	0.25	1.0	15.2	SMB
1SMB5933	933B	22.0	20.9	23.1	17.5	17.0	650	0.25	1.0	16.7	SMB
1SMB5934	934B	24.0	22.8	25.2	19.0	15.6	700	0.25	1.0	18.2	SMB
1SMB5935	935B	27.0	25.7	28.4	23.0	13.9	700	0.25	1.0	20.6	SMB
1SMB5936	936B	30.0	28.5	31.5	26.0	12.5	750	0.25	1.0	22.8	SMB
1SMB5937	937B	33.0	31.4	34.7	33.0	11.4	800	0.25	1.0	25.1	SMB
1SMB5938	938B	36.0	34.2	37.8	38.0	10.4	850	0.25	1.0	27.4	SMB
1SMB5939	939B	39.0	37.1	41.0	45.0	9.6	900	0.25	1.0	29.7	SMB

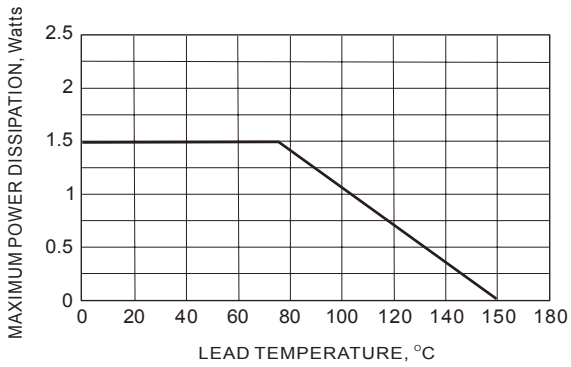

Fig.1 Steady State Power Derating

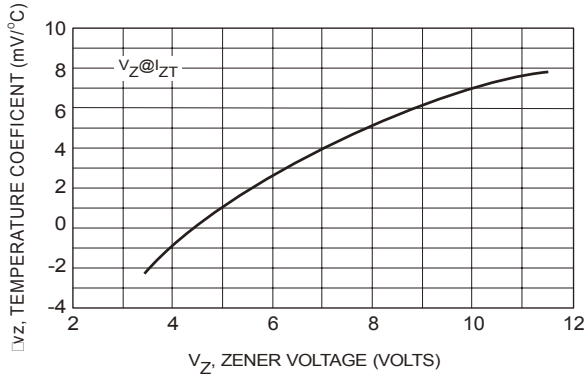

Fig.2 Temperature coeeficient v.s. zener voltage,Vz(V)

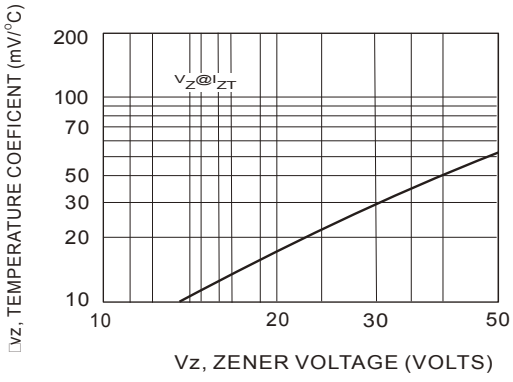

Fig.3 Temperature coeeficient v.s. zener voltage,Vz(V)

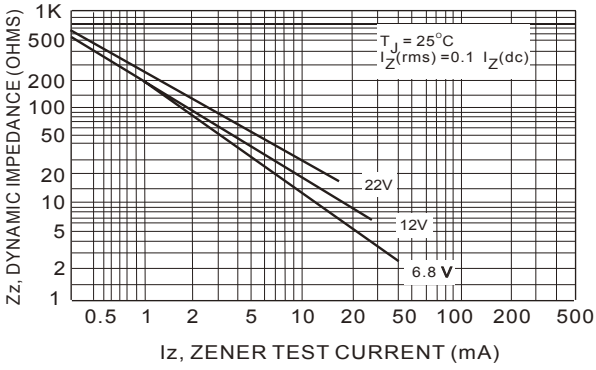

Fig.4 Zener impedance v.s. zener current

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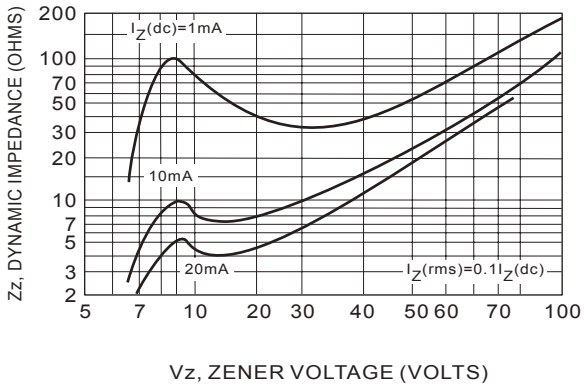

Fig.5 Zener impedance v.s. zener voltage

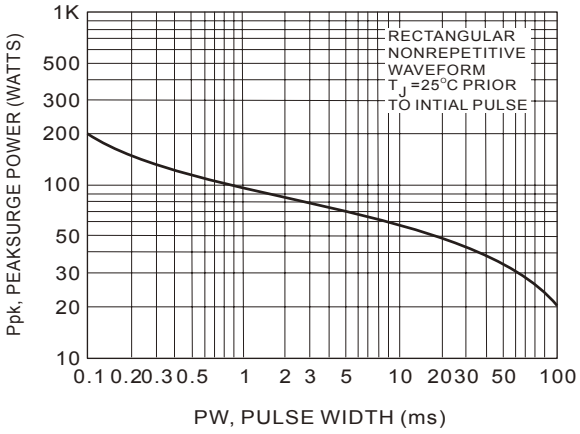

Fig.6 Maximum Surge Power

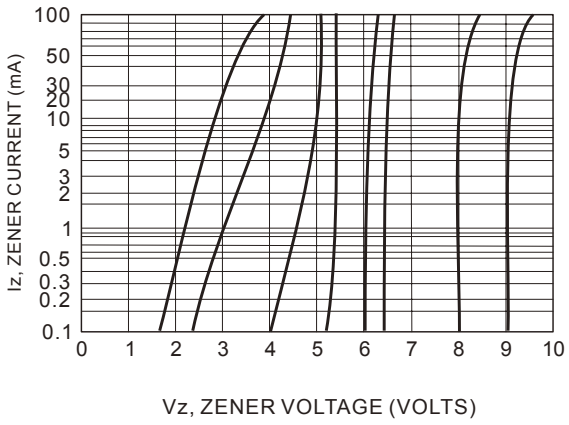

Fig.7 Vz = 6.8 thru 10 Volts

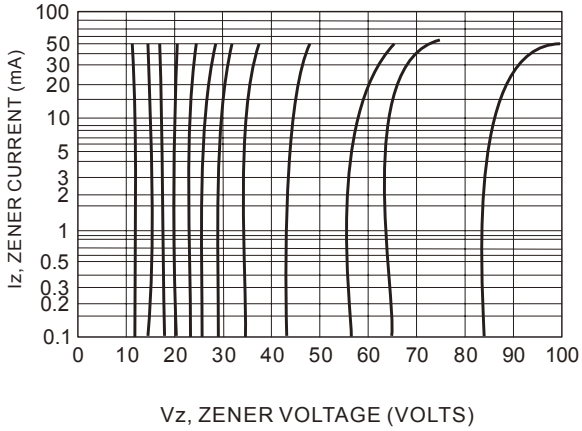

Fig.8 Vz = 12 thru 82 Volts

NOTES:

1. ZENER VOLTAGE (Vz) MEASUREMENT
   Nominal zener voltage is measured with the device function in thermal equilibrium with ambient temperature at 25°C
2. ZENER IMPEDANCE (Zz) DERIVATION
   Zzt and Zzk are measured by dividing the ac voltage drop across the device by the accurrent applied. The specified limits are for Iz(ac) = 0.1 Iz, (dc) with the ac freqency = 60Hz