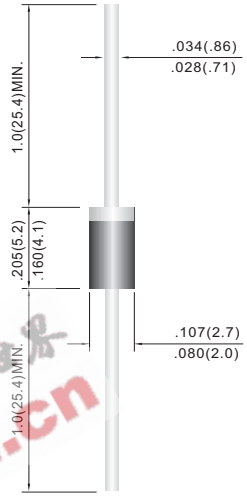
DATA SHEET

1N5926B~1N5939B

GLASS PASSIVATED JUNCTION SILICON ZENER DIODES

VOLTAGE 11 to 39 Volts **POWER** 1.5 Watts

DO-41 Unit: inch(mm)



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: 98.5% Sn above

MECHANICALDATA

Case: JEDEC DO-41,Molded plastic over passivated junction.
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes positive end (cathode)
Standard packing: 52mm tape
Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
DC Power Dissipation on T_A=75 °C ,Measure at Zero Lead Length Derate above 75°C (NOTE 1)	P_D	1.5	Watts
Operating Junction and Storage Temperature Range	T_J , T_{STG}	-55 to +150	°C

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

Part Number	Nominal Zener Voltage			Maximum Zener Impedance				Maximum Leakage Current	
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R	V_R
	Nom. V	Min. V	Max. V	Ohms	mA	Ohms	mA	uA	V
1N5926B	11.0	10.5	11.6	5.5	34.1	550	0.25	1.0	8.4
1N5927B	12.0	11.4	12.6	6.5	31.2	550	0.25	1.0	9.1
1N5928B	13.0	12.4	13.7	7.0	28.8	550	0.25	1.0	9.9
1N5929B	15.0	14.3	15.8	9.0	25.0	600	0.25	1.0	11.4
1N5930B	16.0	15.2	16.8	10.0	23.4	600	0.25	1.0	12.2
1N5931B	18.0	17.1	18.9	12.0	20.8	650	0.25	1.0	13.7
1N5932B	20.0	19.0	21.0	14.0	18.7	650	0.25	1.0	15.2
1N5933B	22.0	20.9	23.1	17.5	17.0	650	0.25	1.0	16.7
1N5934B	24.0	22.8	25.2	19.0	15.6	700	0.25	1.0	18.2
1N5935B	27.0	25.7	28.4	23.0	13.9	700	0.25	1.0	20.6
1N5936B	30.0	28.5	31.5	26.0	12.5	750	0.25	1.0	22.8
1N5937B	33.0	31.4	34.7	33.0	11.4	800	0.25	1.0	25.1
1N5938B	36.0	34.2	37.8	38.0	10.4	850	0.25	1.0	27.4
1N5939B	39.0	37.1	41.0	45.0	9.6	900	0.25	1.0	29.7

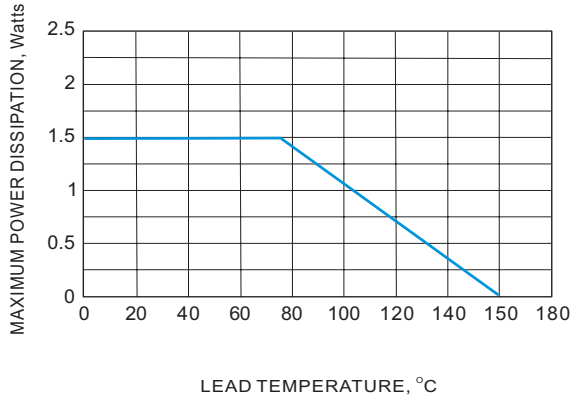


Fig.1 Steady State Power Derating

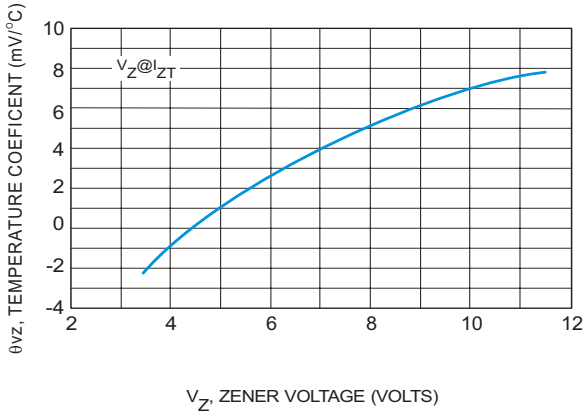


Fig.2 Temperature coeeficient v.s. zener voltage,Vz(V)

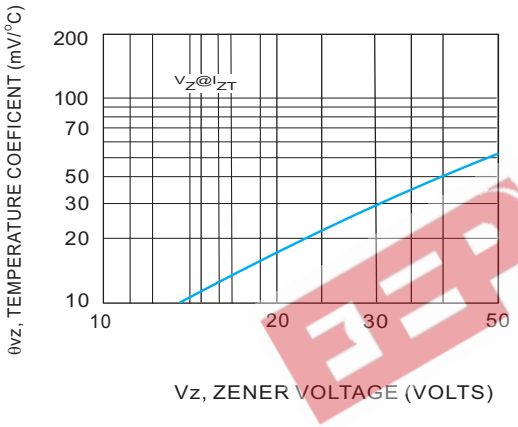


Fig.3 Temperature coeeficient v.s. zener voltage,Vz(V)

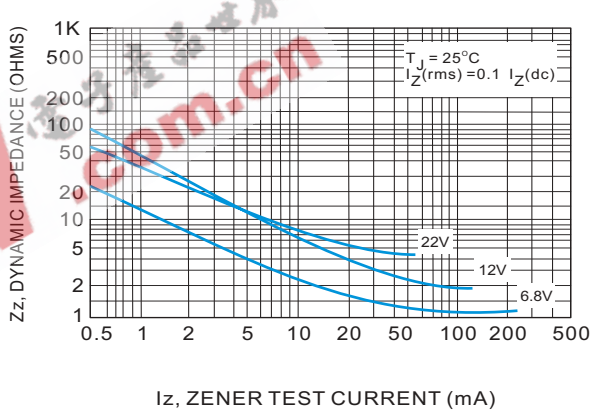


Fig.4 Zener impedance v.s. zener current

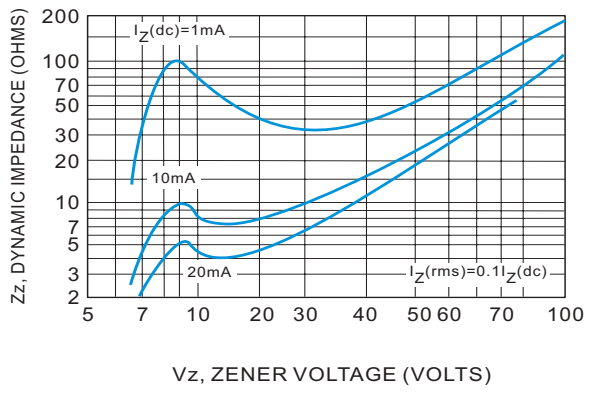


Fig.5 Zener impedance v.s. zener voltage

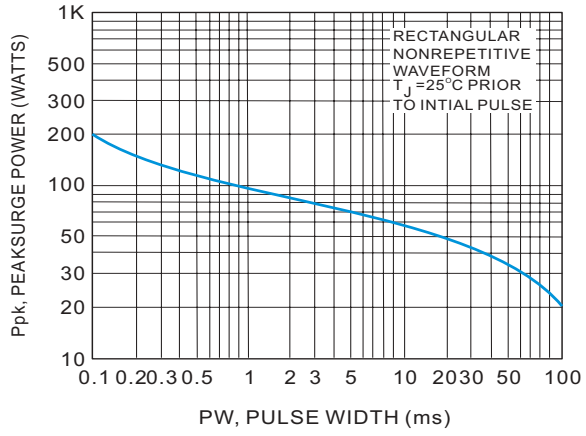


Fig.6 Maximum Surge Power

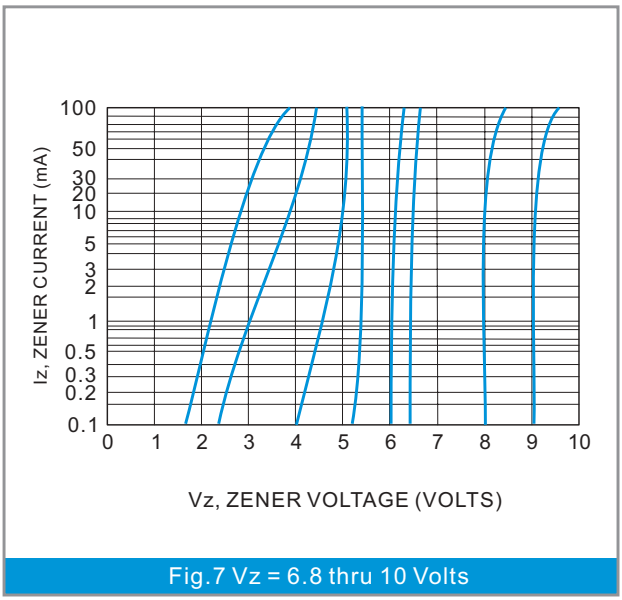


Fig.7 Vz = 6.8 thru 10 Volts

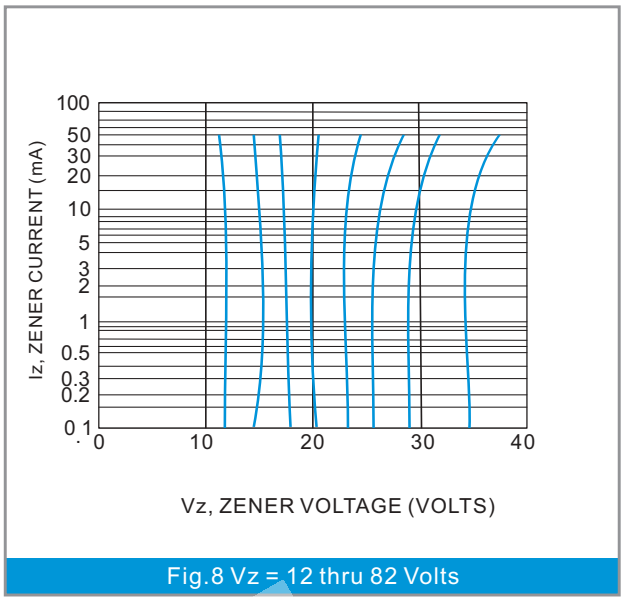


Fig.8 Vz = 12 thru 82 Volts

NOTE 3. ZENER VOLTAGE (Vz) MEASUREMENT
Nominal zener voltage is measured with the device function in thermal equilibrium with ambient temperature at 25°C

NOTE 4. 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