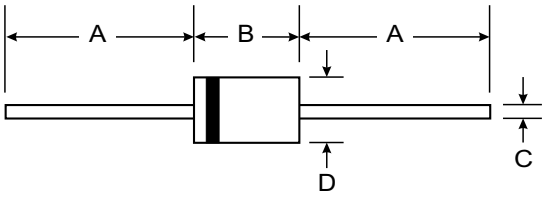
ZY11 - ZY200

SILICON POWER ZENER DIODE

Features

- 2 Watt Power Dissipation
- Zener Voltages from 11V - 200V
- Graded per International E24 Standard



Mechanical Data

- Case: Glass, DO-41
- Leads: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.35 grams (approx.)

DO-41		
Dim	**Min**	**Max**
A	25.4	—
B	4.1	5.2
C	0.71	0.86
D	2.0	2.7
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (see Table on Page 2)	—	—	—
Maximum Power Dissipation (Note 1)	P_d	2	W
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	62.5	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	°C

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.

Electrical Characteristics (cont.) @ T_j = 25°C unless noted

Type Number	Zener Voltage (Note 2)	Test Current	Maximum Dynamic Impedance	Temperature Coefficient	Minimum Reverse Voltage	Maximum Zener Current (Note 1)
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	@I_{ZT}	V_R @ I_R = 1µA	I_{ZM} @ T_A = 45°C
	Volts	mA	Ohms	a_{vz} x10^{-4}/°C	Volts	mA
ZY11	10.4 - 11.6	50	7	+5 ... +10	9.2	135
ZY12	11.4 - 12.7	50	7	+5 ... +10	10.0	120
ZY13	12.4 - 14.1	50	10	+5 ... +10	10.7	110
ZY15	13.8 - 15.8	50	10	+5 ... +10	12.0	98
ZY16	15.3 - 17.1	25	15	+6 ... +11	13.3	90
ZY18	16.8 - 19.1	25	15	+6 ... +11	14.7	80
ZY20	18.8 - 21.2	25	15	+6 ... +11	16.5	72
ZY22	20.8 - 23.3	25	15	+6 ... +11	18.3	66
ZY24	22.8 - 25.6	25	15	+6 ... +11	20.1	60
ZY27	25.1 - 28.9	25	15	+6 ... +11	22.5	53
ZY30	28 - 32	25	15	+6 ... +11	25.1	48
ZY33	31 - 35	25	15	+6 ... +11	27.8	44
ZY36	34 - 38	10	40	+6 ... +11	30.2	40
ZY39	37 - 41	10	40	+6 ... +11	32.9	37
ZY43	40 - 46	10	45	+7 ... +12	35.6	33
ZY47	44 - 50	10	45	+7 ... +12	39.2	30
ZY51	48 - 54	10	60	+7 ... +12	42.8	27
ZY56	52 - 60	10	60	+7 ... +12	47.3	25
ZY62	58 - 66	10	80	+8 ... +13	51.7	21
ZY68	64 - 72	10	80	+8 ... +13	57.1	20
ZY75	70 - 79	10	100	+8 ... +13	63.2	18
ZY82	77 - 88	10	100	+8 ... +13	68.6	16
ZY91	85 - 96	5	200	+9 ... +13	75.7	15
ZY100	94 - 106	5	200	+9 ... +13	83.7	13
ZY110	104 - 116	5	250	+9 ... +13	92.6	12
ZY120	114 - 127	5	250	+9 ... +13	101.6	11
ZY130	124 - 141	5	300	+9 ... +13	110.5	10
ZY150	138 - 156	5	300	+9 ... +13	123	9
ZY160	153 - 171	5	350	+9 ... +13	136	8.5
ZY180	168 - 191	5	350	+9 ... +13	149	8
ZY200	188 - 212	5	350	+9 ... +13	167	7.5

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.
2. Tested with pulses tp = 20 ms.

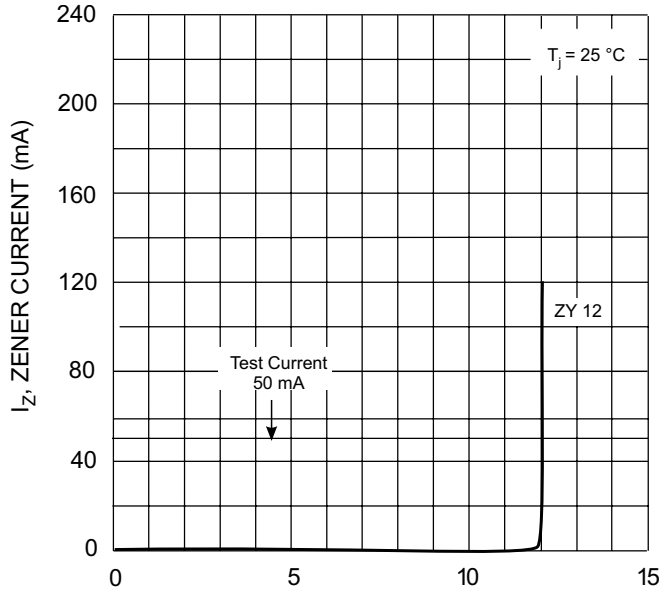


Fig. 1 Zener Breakdown Characteristics

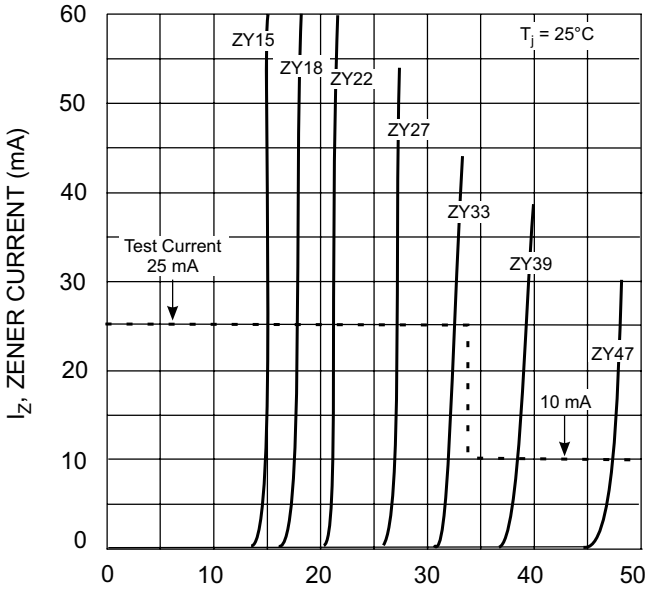


Fig. 2 Zener Breakdown Characteristics

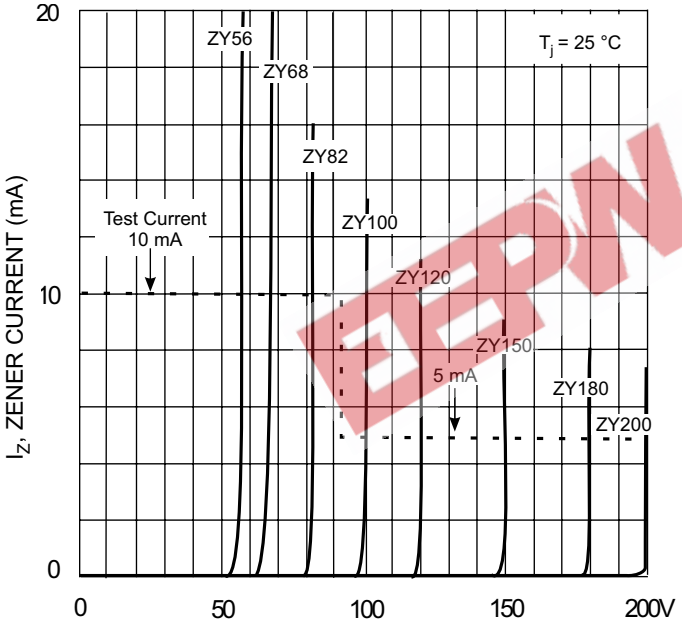


Fig. 3 Zener Breakdown Characteristics

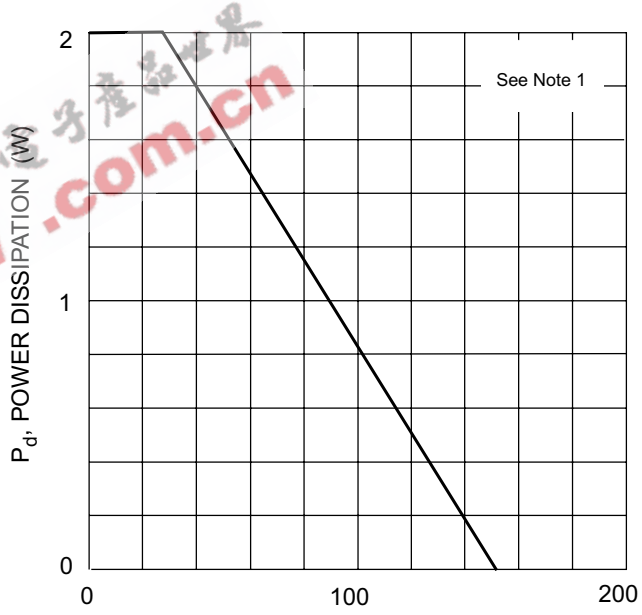


Fig. 4 Power Derating Curve

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.