

### 1.5 W Zener Diodes

# Dimensions in mm. DO-41 (Plastic)

Voltage 10 to 220 V

> Power 1.5 W

### **Mounting instructions**

- 1. Min. distance from body to soldering point, 4 mm.
- 2. Max. solder temperature, 350 °C.
- 3. Max. soldering time, 3.5 sec.
- 4. Do not bend lead at a point closer than 2 mm. to the body.
- Diffused junction
- The plastic material carries U/L recognition 94 V-0
- Terminals: Axial Leads
- Polarity: Color band denotes cathode

## Maximum Ratings, According to IEC Publication No. 134

P <sub>tot</sub>	Power dissipation at Tamb = 60 °C	1.5 W
P <sub>ZSM</sub>	Non repetitive peak zener dissipation (t = 10ms.)	40 W
T <sub>j</sub>	Operating temperature range	− 55 to + 175 °C
T <sub>stg</sub>	Storage temperature range	– 55 to + 175 °C

### Electrical Characteristics at Tamb = 25 °C

V <sub>F</sub>	Max. forward voltage drop at $I_F = 1.0 \text{ A}$	1.1 V
R <sub>thj-a</sub>	Max. thermal resistance at 10 mm. lead length	50 °C/W

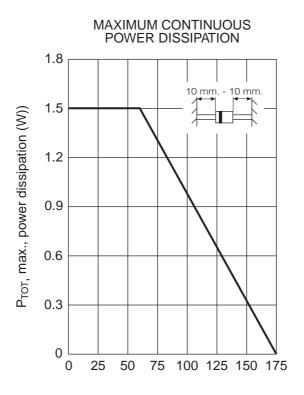


# 1.3 W Glass Passivated Zener Diodes

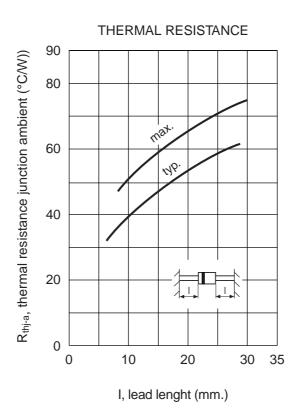
Туре	Zener Voltage Range V <sub>Z</sub> at I <sub>ZT</sub>	Maximum Zener Impedance Z <sub>ZT</sub> at I <sub>ZT</sub>	Typical Temperature Coefficient at I <sub>ZT</sub>	Test Current I <sub>ZT</sub>	Min. Reverse Voltage at I <sub>R</sub> = 1 μA V <sub>R</sub>
	(V)	(Ω)	(% / °C)	(mA)	(V)
BZY97C10 GP	9.4 - 10.6	4	+ 0.070	50	5.0
BZY97C11 GP	10.4 - 11.6	7	+ 0.075	50	5.0
BZY97C12 GP	11.4 - 12.7	7	+ 0.075	50	7.0
BZY97C13 GP	12.4 - 14.1	10	+ 0.075	50	7.0
BZY97C15 GP	13.8 - 15.8	10	+ 0.075	50	10
BZY97C16 GP	15.3 - 17.1	15	+ 0.085	25	10
BZY97C18 GP	16.8 - 19.1	15	+ 0.085	25	10
BZY97C20 GP	18.8 - 21.2	15	+ 0.085	25	10
BZY97C22 GP	20.8 - 23.3	15	+ 0.085	25	12
BZY97C24 GP	22.8 - 25.6	15	+ 0.085	25	12
BZY97C27 GP	25.1 - 28.9	15	+ 0.085	25	14
BZY97C30 GP	28 - 32	15	+ 0.085	25	14
BZY97C33 GP	31 - 35	15	+ 0.085	25	17
BZY97C36 GP	34 - 38	40	+ 0.085	10	17
BZY97C39 GP	37 - 41	40	+ 0.085	10	20
BZY97C43 GP	40 - 46	45	+ 0.095	10	20
BZY97C47 GP	44 - 50	45	+ 0.095	10	24
BZY97C51 GP	48 - 54	60	+ 0.095	10	24
BZY97C56 GP	52 - 60	60	+ 0.095	10	28
BZY97C62 GP	58 - 66	80	+ 0.105	10	28
BZY97C68 GP	64 - 72	80	+ 0.105	10	34
BZY97C75 GP	70 - 79	100	+ 0.105	10	34
BZY97C82 GP	77 - 88	100	+ 0.105	10	41
BZY97C91 GP	85 - 96	200	+ 0.11	5	41
BZY97C100 GP	94 - 106	200	+ 0.11	5	50
BZY97C110 GP	104 - 116	250	+ 0.11	5	50
BZY97C120 GP	114 - 127	250	+ 0.11	5	60
BZY97C130 GP	124 - 141	300	+ 0.11	5	60
BZY97C150 GP	138 - 156	300	+ 0.11	5	75
BZY97C160 GP	153 - 171	400	+ 0.11	5	75
BZY97C180 GP	168 - 191	500	+ 0.11	5	90
BZY97C200 GP	188 - 212	500	+ 0.11	5	90



### **Characteristic Curves**

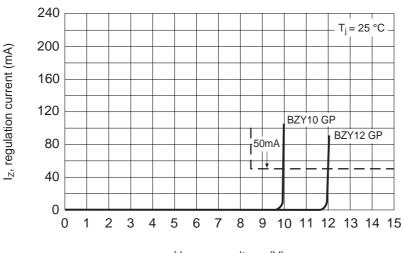


Tamb. ambient temperature (°C)

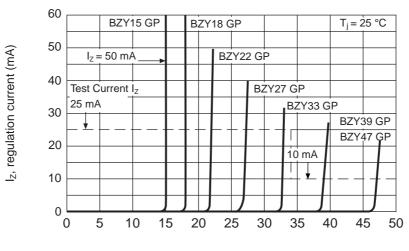




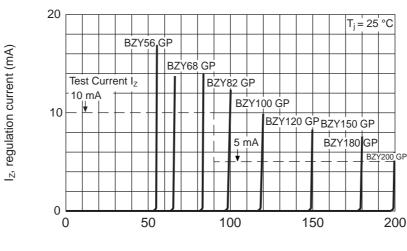
### **BREAKDOWN CHARACTERISTICS**



Vz, zener voltage (V)



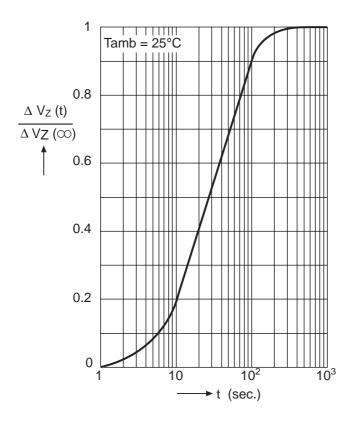




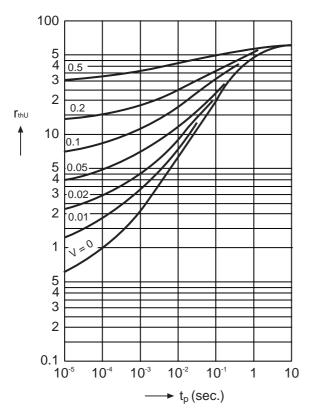
V<sub>Z</sub>, zener voltage (V)







Relative change of Zener voltage versus turn-on time.



Pulse thermal resistance versus pulse duration. Valid provided that leads are kept at ambient temperature at a distance of 10mm. from case.

