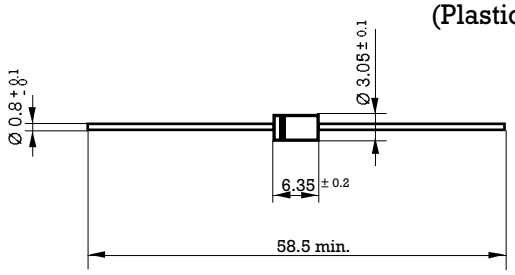
1.5 W Zener Diodes

Dimensions in mm. DO-15 (Plastic)



Voltage
10 to 200 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_{tot}	Power dissipation at Tamb = 60 °C	1.5 W
P_{ZSM}	Non repetitive peak zener dissipation (t = 10 ms.)	40 W
T_j	Operating temperature range	– 55 to + 150 °C
T_{stg}	Storage temperature range	– 55 to + 150 °C

Electrical Characteristics at Tamb = 25°C

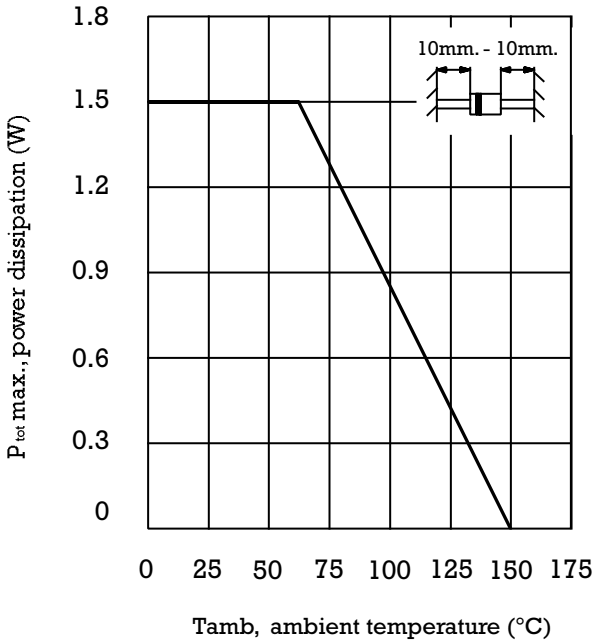
V_F	Max. forward voltage drop at I_F = 1.0 A	1.1 V
$R_{thj\text{-}a}$	Max. thermal resistance at 10 mm. lead length	60° C/W

FAGOR

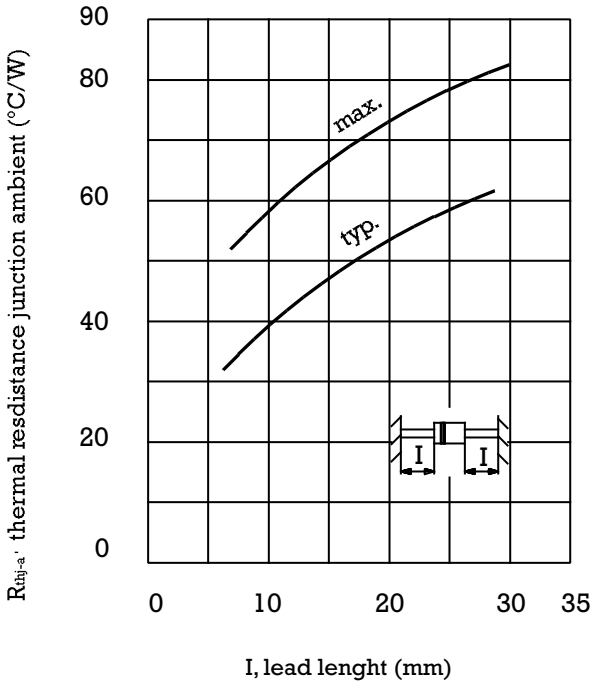
Type	Zener Voltage Range V_Z at I_{ZT}	Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature Coefficient at I_{ZT}	Test Current I_{ZT}	Min. Reverse Voltage at I_R = 1µA V_R
	(V)	(Ω)	(% / °C)	(mA)	(V)
BZY97C10	9.4 - 10.6	4	+ 0.070	50	5.0
BZY97C11	10.4 - 11.6	7	+ 0.075	50	5.0
BZY97C12	11.4 - 12.7	7	+ 0.075	50	7.0
BZY97C13	12.4 - 14.1	10	+ 0.075	50	7.0
BZY97C15	13.8 - 15.8	10	+ 0.075	50	10
BZY97C16	15.3 - 17.1	15	+ 0.085	25	10
BZY97C18	16.8 - 19.1	15	+ 0.085	25	10
BZY97C20	18.8 - 21.2	15	+ 0.085	25	10
BZY97C22	20.8 - 23.3	15	+ 0.085	25	12
BZY97C24	22.8 - 25.6	15	+ 0.085	25	12
BZY97C27	25.1 - 28.9	15	+ 0.085	25	14
BZY97C30	28 - 32	15	+ 0.085	25	14
BZY97C33	31 - 35	15	+ 0.085	25	17
BZY97C36	34 - 38	40	+ 0.085	10	17
BZY97C39	37 - 41	40	+ 0.085	10	20
BZY97C43	40 - 46	45	+ 0.095	10	20
BZY97C47	44 - 50	45	+ 0.095	10	24
BZY97C51	48 - 54	60	+ 0.095	10	24
BZY97C56	52 - 60	60	+ 0.095	10	28
BZY97C62	58 - 66	80	+ 0.105	10	28
BZY97C68	64 - 72	80	+ 0.105	10	34
BZY97C75	70 - 79	100	+ 0.105	10	34
BZY97C82	77 - 88	100	+ 0.105	10	41
BZY97C91	85 - 96	200	+ 0.11	5	41
BZY97C100	94 - 106	200	+ 0.11	5	50
BZY97C110	104 - 116	250	+ 0.11	5	50
BZY97C120	114 - 127	250	+ 0.11	5	60
BZY97C130	124 - 141	300	+ 0.11	5	60
BZY97C150	138 - 156	300	+ 0.11	5	75
BZY97C160	153 - 171	350	+ 0.11	5	75
BZY97C180	168 - 191	350	+ 0.11	5	90
BZY97C200	188 - 212	350	+ 0.11	5	90

Characteristic Curves

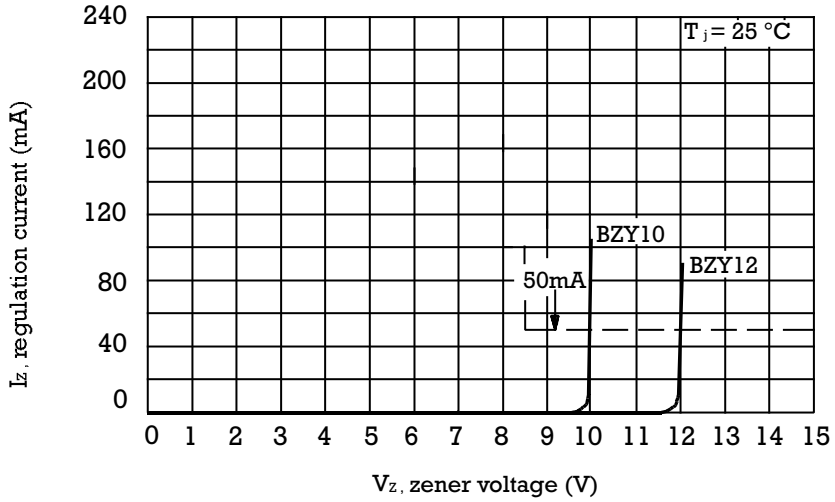
MAXIMUM CONTINUOUS
POWER DISSIPATION

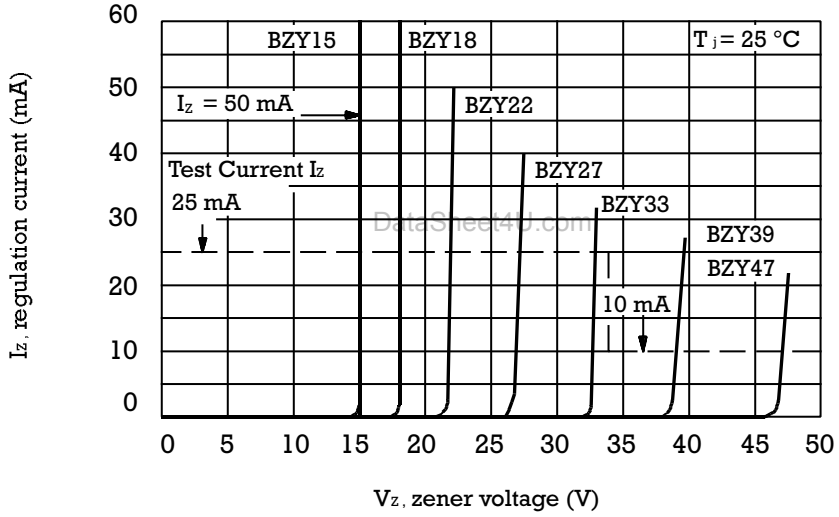


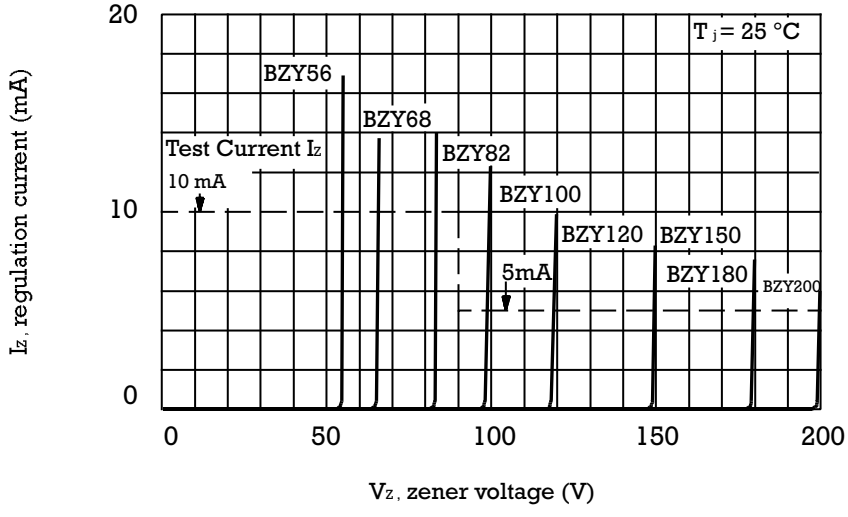
THERMAL RESISTANCE

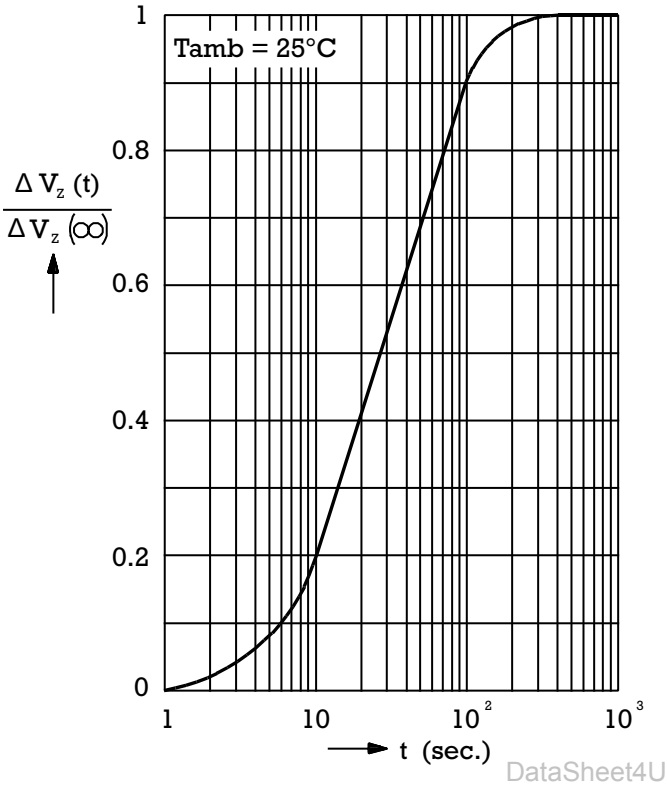


BREAKDOWN CHARACTERISTICS

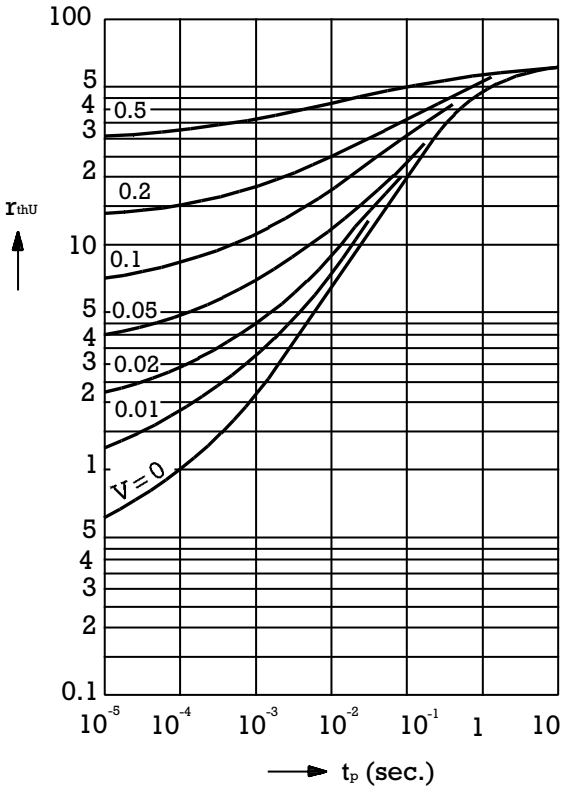








Relative change of Zener voltage versus turn-on time.



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