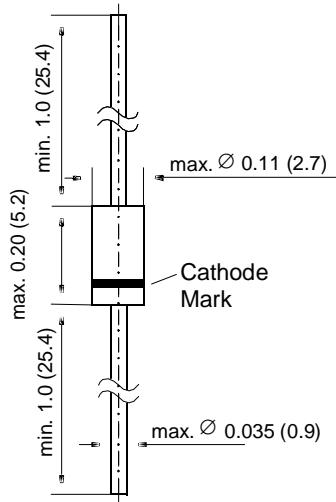


BZY97-C11 THRU BZY97-C68

ZENER DIODES

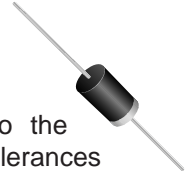
DO-41 Plastic



Dimensions are in inches and (millimeters)

FEATURES

- ◆ Silicon Power Zener Diodes
- ◆ For use in stabilizing and clipping circuits with high power rating.
- ◆ The Zener voltages are graded according to the international E 24 standard. Smaller voltage tolerances are available upon request.



MECHANICAL DATA

Case: DO-41 Plastic Case

Weight: approx. 0.34 g

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener Current (see Table "Characteristics")			
Power Dissipation at $T_{amb} = 60^{\circ}\text{C}$	P_{tot}	1.5 ¹⁾	Watts
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	- 55 to +150	°C

Characteristics at $T_{amb} = 25^{\circ}\text{C}$

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Thermal Resistance Junction to Ambient Air	R_{thJA}	-	-	60 ¹⁾	°C/W

NOTES:

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

BZY97-C11 THRU BZY97-C68

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Type	Zener voltage ⁽¹⁾ at I _{ZT} min. max. V _Z (V)	Dynamic resistance at -I _{ZT} f = 1 kHz max r _{Zj} (Ω)	Temp. coeff. of Zener volt. at I _{ZT} α _{VZ} (10 ⁻⁴ /K)	Test current I _{ZT} (mA)	Leakage current I _R (μA)	Reverse voltage V _R (V)	Admissible Zener current at T _{amb} = 60°C I _Z (mA)	I _{ZSM} t _p = 10 ms (A)
BZY97 – C11	10.4 ... 11.6	7	+5 ... +10	50	0.5	5	129	1.3
BZY97 – C12	11.4 ... 12.7	7	+5 ... +10	50	0.5	7	118	1.2
BZY97 – C13	12.4 ... 14.1	10	+5 ... +10	50	0.5	7	106	1.1
BZY97 – C15	13.8 ... 15.6	10	+5 ... +10	50	0.5	10	96	1.0
BZY97 – C16	15.3 ... 17.1	15	+6 ... +11	25	0.5	10	88	0.90
BZY97 – C18	16.8 ... 19.1	15	+6 ... +11	25	0.5	10	79	0.81
BZY97 – C20	18.8 ... 21.2	15	+6 ... +11	25	0.5	10	71	0.73
BZY97 – C22	20.8 ... 23.3	15	+6 ... +11	25	0.5	12	64	0.66
BZY97 – C24	22.8 ... 25.6	15	+6 ... +11	25	0.5	12	59	0.60
BZY97 – C27	25.1 ... 28.9	15	+6 ... +11	25	0.5	14	52	0.53
BZY97 – C30	28 ... 32	15	+6 ... +11	25	0.5	14	47	0.48
BZY97 – C33	31 ... 35	15	+6 ... +11	25	0.5	17	43	0.44
BZY97 – C36	34 ... 38	40	+6 ... +11	10	0.5	17	40	0.40
BZY97 – C39	37 ... 41	40	+6 ... +11	10	0.5	20	37	0.38
BZY97 – C43	40 ... 46	45	+7 ... +12	10	0.5	20	33	0.33
BZY97 – C47	44 ... 50	45	+7 ... +12	10	0.5	24	30	0.31
BZY97 – C51	48 ... 54	60	+7 ... +12	10	0.5	24	28	0.28
BZY97 – C56	52 ... 60	60	+7 ... +12	10	0.5	28	25	0.26
BZY97 – C62	58 ... 66	80	+7 ... +12	10	0.5	28	23	0.23
BZY97 – C68	64 ... 72	80	+7 ... +12	10	0.5	34	21	0.21

NOTES:

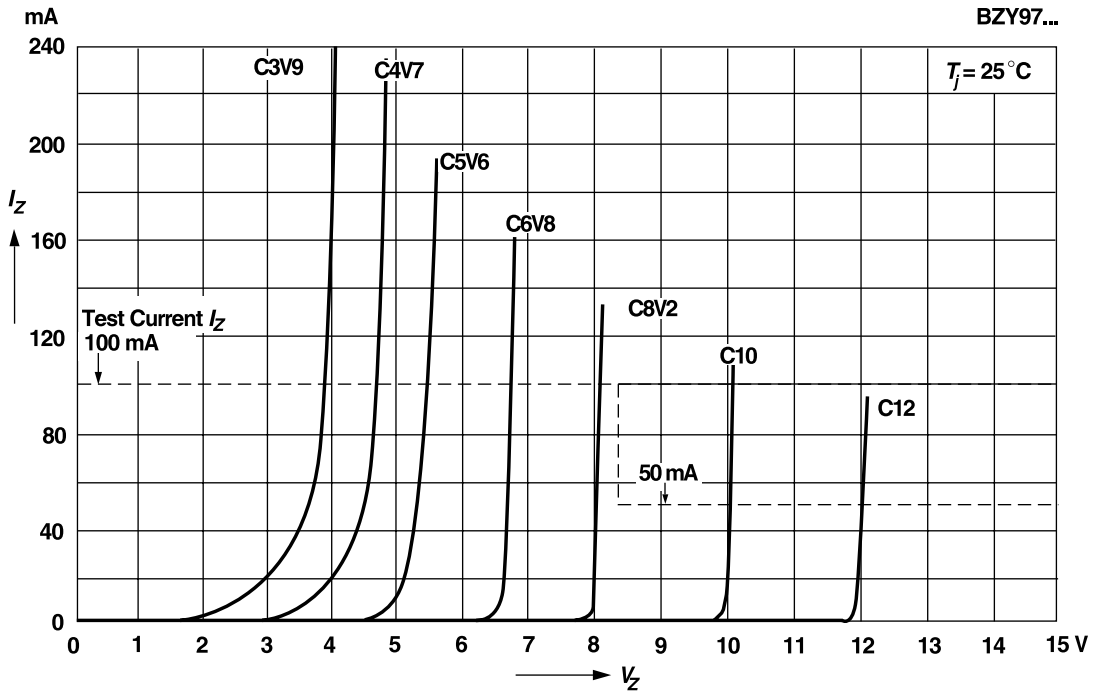
(1) Tested with pulses t_p = 5 ms

(2) Consult factory for voltages above 68V

RATINGS AND CHARACTERISTIC CURVES BZY97-C11 THRU BZY97-C68

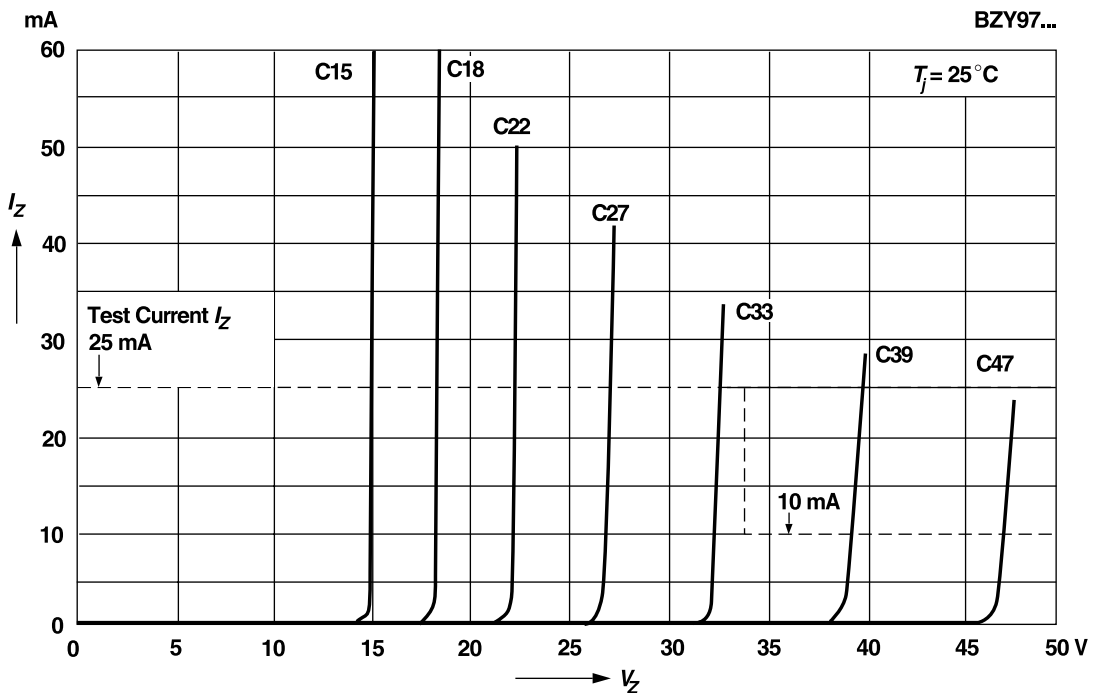
Breakdown characteristics

$T_j = \text{constant (pulsed)}$



Breakdown characteristics

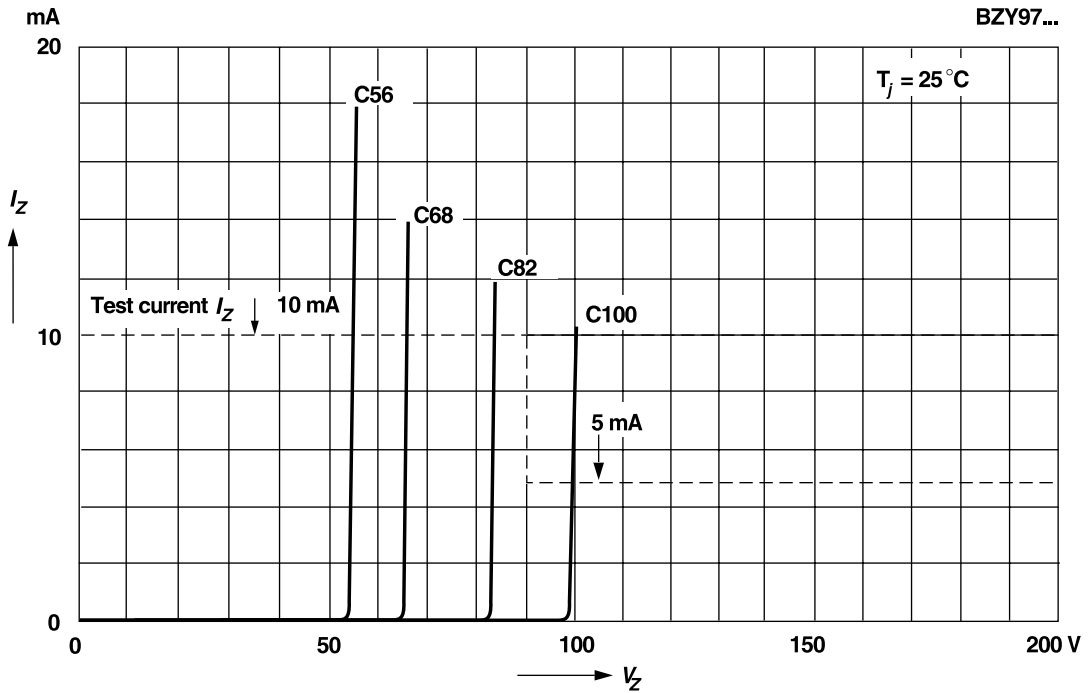
$T_j = \text{constant (pulsed)}$



RATINGS AND CHARACTERISTIC CURVES BZY97-C11 THRU BZY97-C68

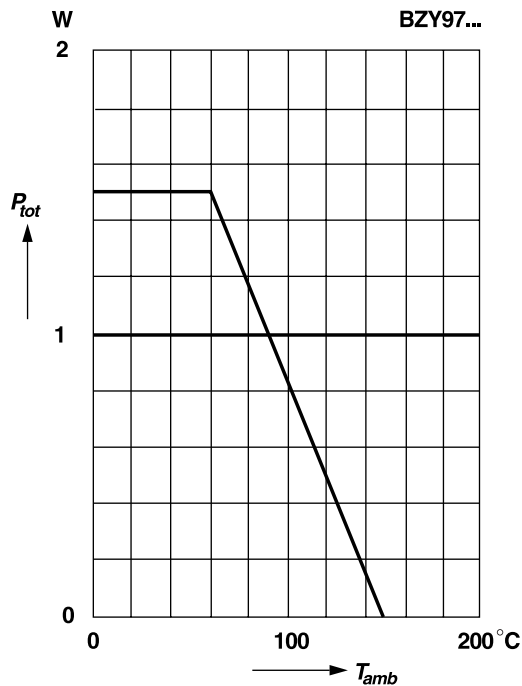
Breakdown characteristics

$T_j = \text{constant (pulsed)}$



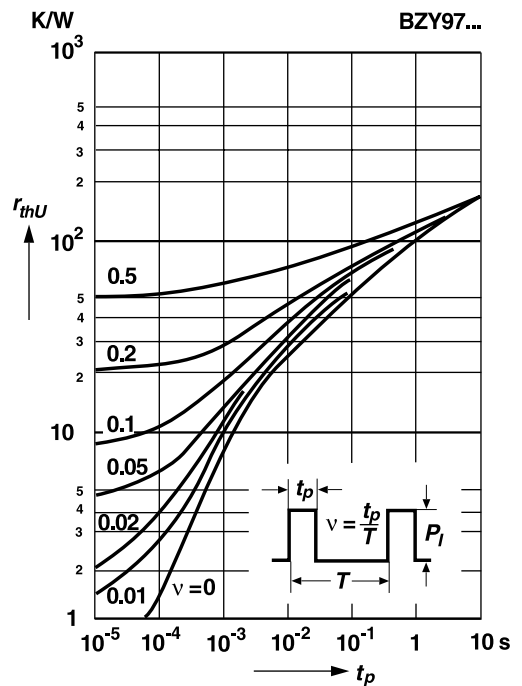
Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"



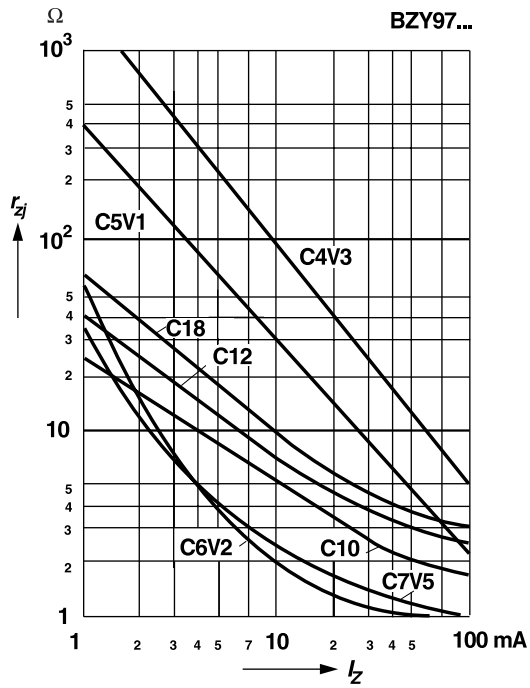
Pulse thermal resistance versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"

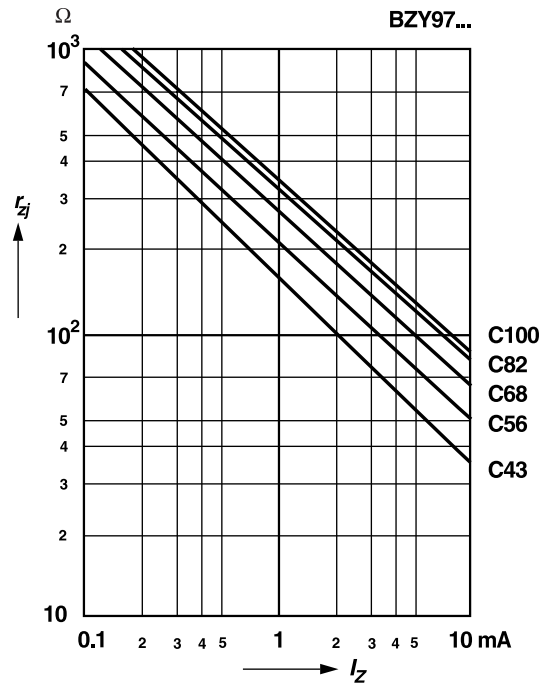


RATINGS AND CHARACTERISTIC CURVES BZY97-C11 THRU BZY97-C68

Dynamic resistance versus Zener current



Dynamic resistance versus Zener current



Dynamic resistance versus Zener current

