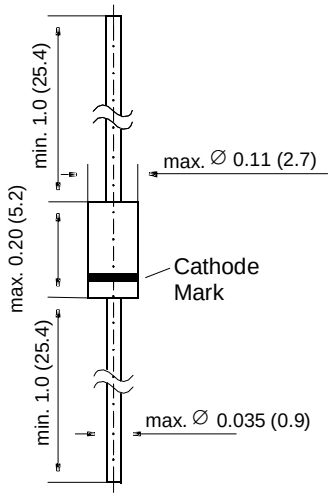
BZY97-C11 THRU BZY97-C68

ZENER DIODES

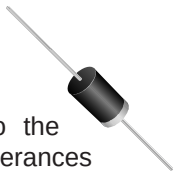
DO-41 Plastic



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°C	P_{tot}	1.5[1)]	Watts
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	– 55 to +150	°C

Characteristics at Tamb = 25 °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.

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BZY97-C11 THRU BZY97-C68

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Type	Zener voltage[1] at I_{ZT} min. V_Z (V)	Zener voltage[1] at I_{ZT} 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

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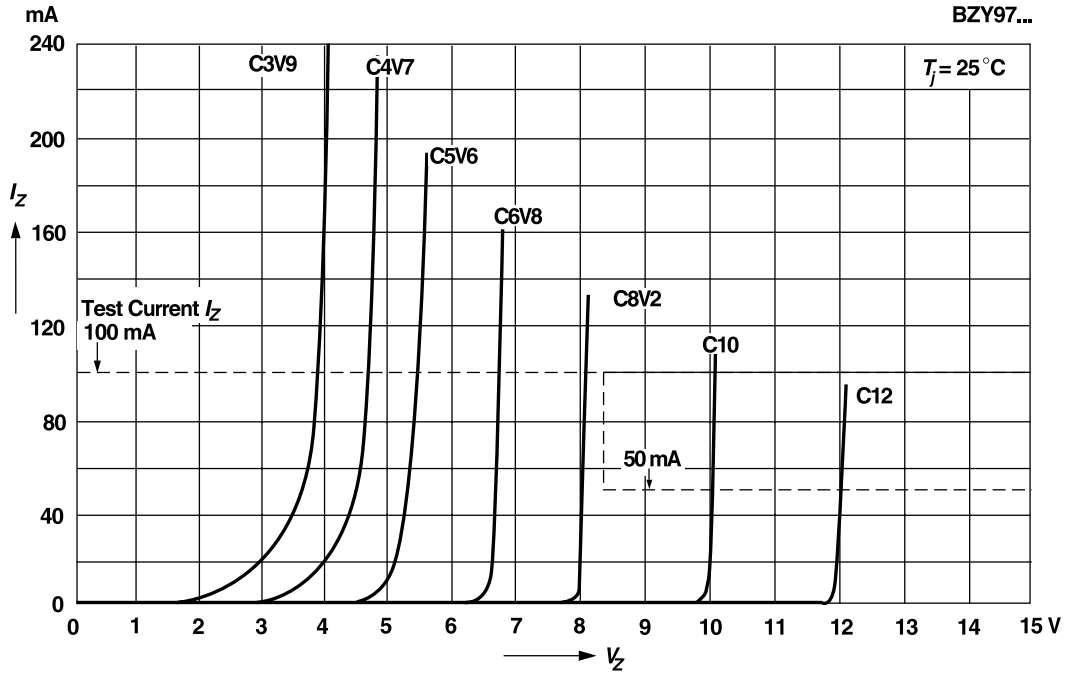
Breakdown characteristics

T_j = constant (pulsed)



Breakdown characteristics

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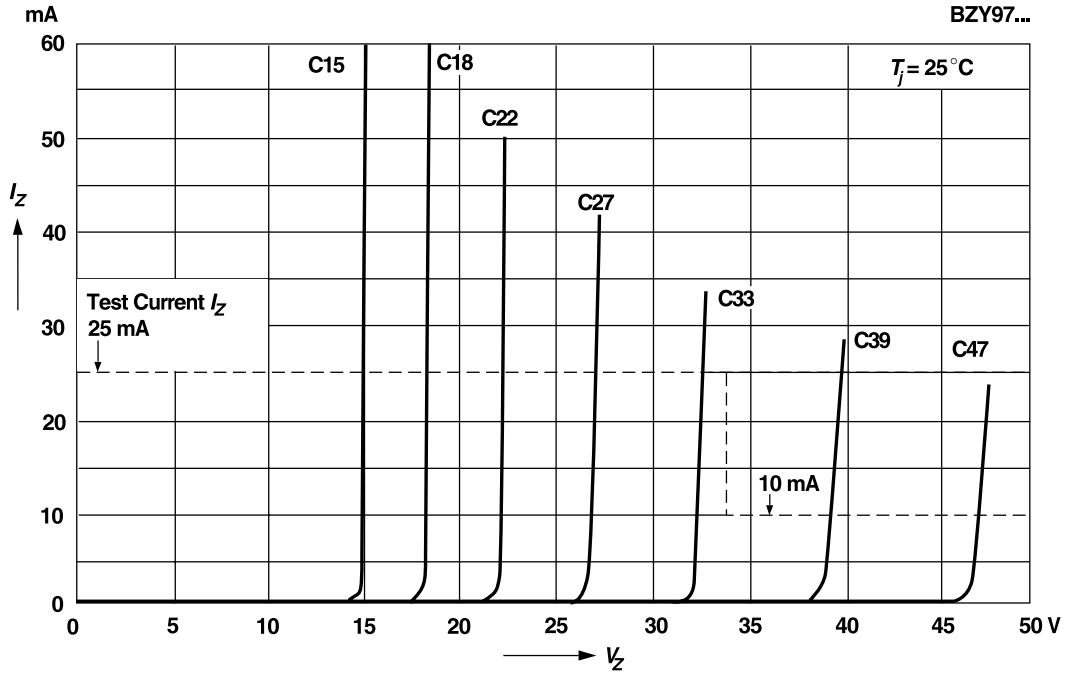
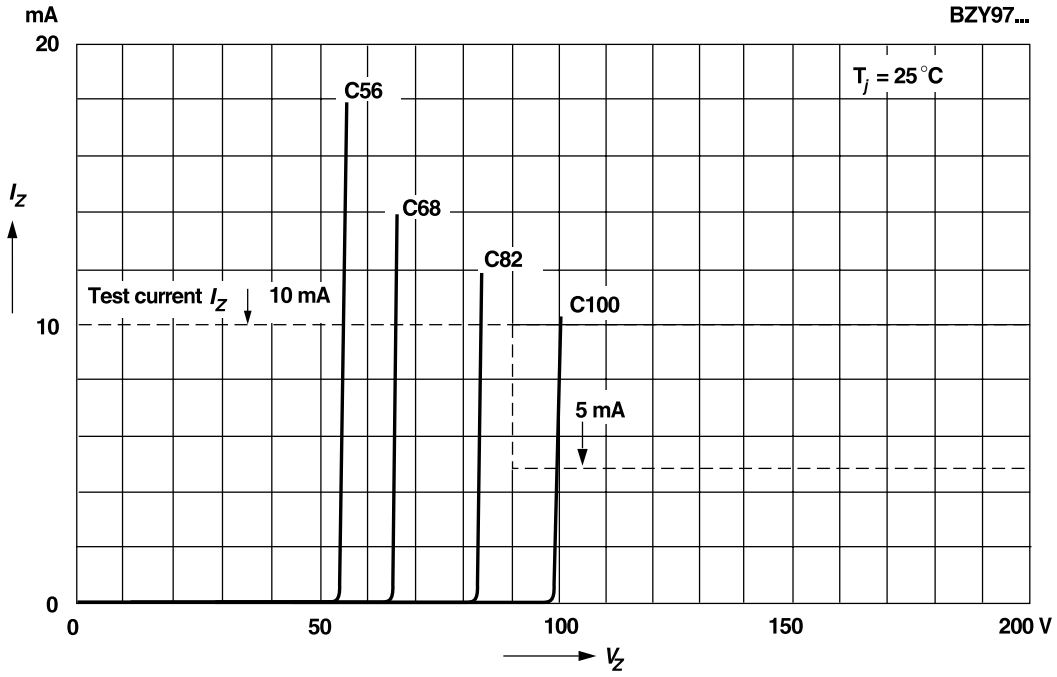


RATINGS AND CHARACTERISTIC CURVES BZY97-C11 THRU BZY97-C68

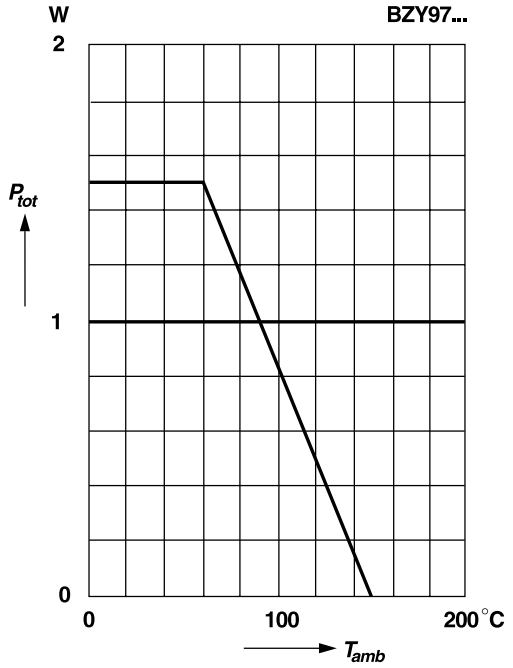
Breakdown characteristics

T_j = constant (pulsed)



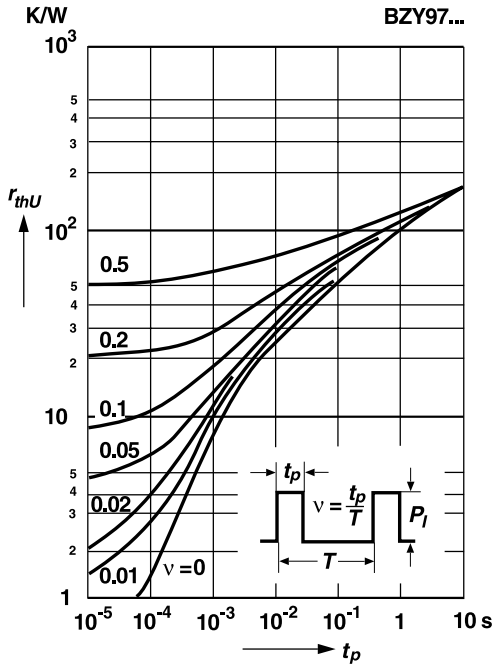
Admissible power dissipation versus ambient temperature

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



Pulse thermal resistance versus pulse duration

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



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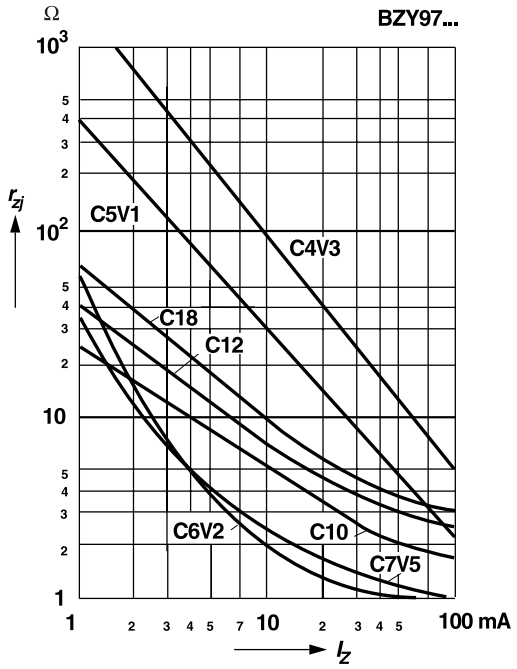
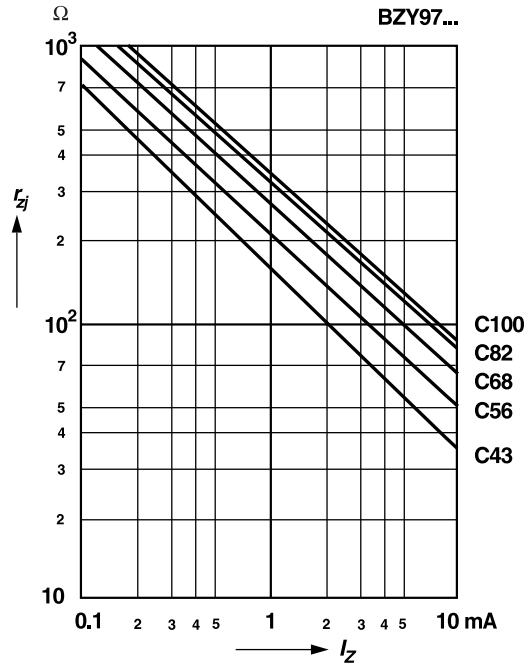
RATINGS AND CHARACTERISTIC CURVES BZY97-C11 THRU BZY97-C68

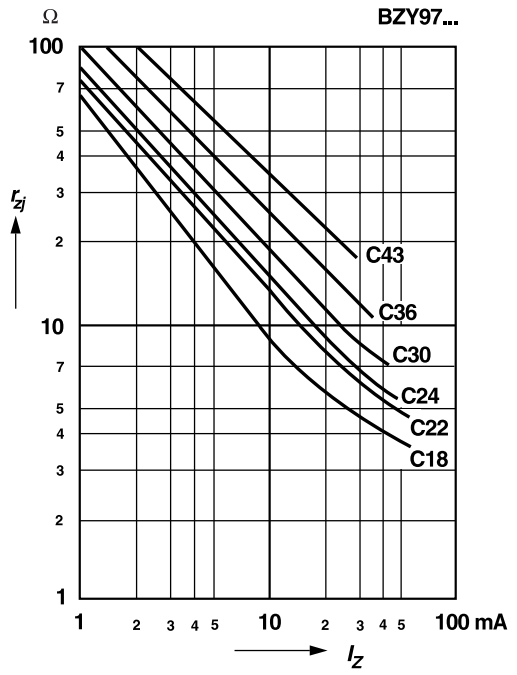
Dynamic resistance versus Zener current



Dynamic resistance versus Zener current



Dynamic resistance versus Zener current



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