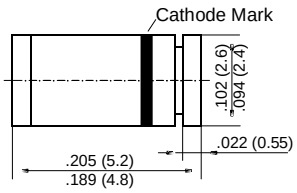
ZMU100 THRU ZMU180

ZENER DIODES

MELF



Dimensions are in inches and (millimeters)

FEATURES

- Silicon Planar Power Zener Diodes
- For use in stabilizing and clipping circuits with higher power rating.
- The Zener voltages are graded according to the international E 12 standard. Smaller voltage tolerances are available upon request.
- These diodes are also available in the DO-41 case with the type designation ZPU100 … ZPU180.

MECHANICAL DATA

Case: MELF Glass Case
Weight: approx. 0.25 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} = 25°C	P_{tot}	1.0[1)]	Watts
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	– 55 to +150	°C

NOTES:
(1) Valid provided that electrodes are kept at ambient temperature.

ZMU100 THRU ZMU180

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	*MIN.*	*TYP.*	*MAX.*	*UNIT*
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	170[1)]	°C/W

NOTES:
(1) Valid provided that electrodes are kept at ambient temperature.

Type	Zener voltage[(1)] at I_{ZT} V_Z (V)	Dynamic Resistance at I_{ZT} f = 1 kHz r_{zj} (Ω)	Temp. Coeff. of Zener Voltage at I_{ZT} α_{VZ} (10^{-4}/K)	Test current I_{ZT} (mA)	Reverse Voltage at I_R = .5 μA V_R (V)	Admissible Zener current[(2)] at T_{amb} = 25°C I_Z (mA)
ZMU100	88 ... 110	140 (< 300)	+9 ... +13	5	> 75	7
ZMU120	107 ... 134	170 (< 330)	+9 ... +13	5	> 90	6
ZMU150	130 ... 165	200 (< 360)	+9 ... +13	5	> 112	5
ZMU180	160 ... 200	220 (< 380)	+9 ... +13	5	> 134	4

NOTES:
(1) Tested with pulses t_p = 5 ms
(2) Valid provided that electrodes are kept at ambient temperature

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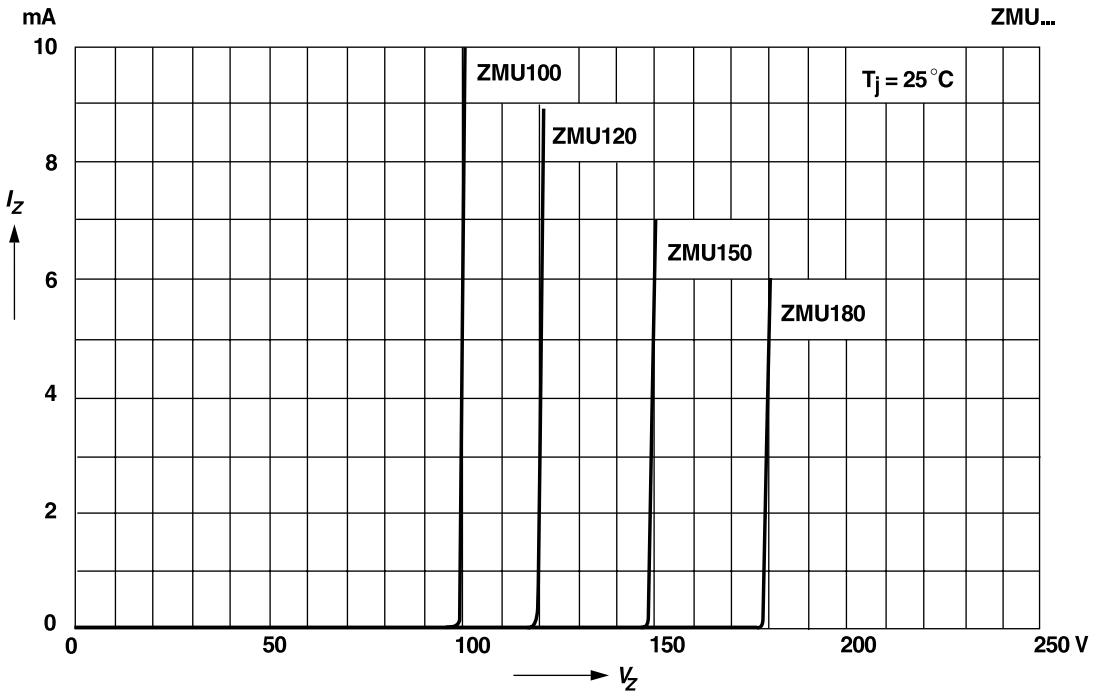
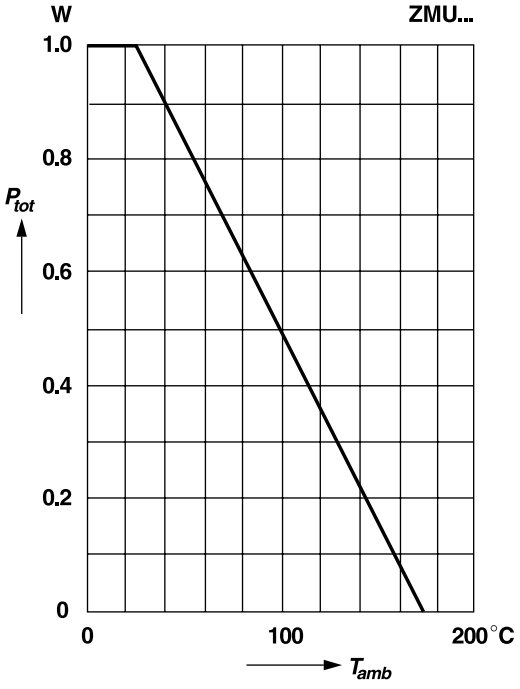
Breakdown characteristics

T_j = constant (pulsed)



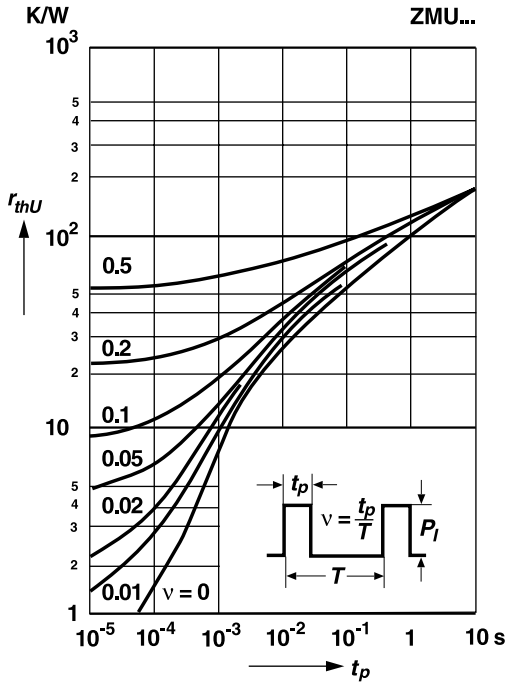
Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature



Pulse thermal resistance versus pulse duration

Valid provided that electrodes are kept at ambient temperature



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