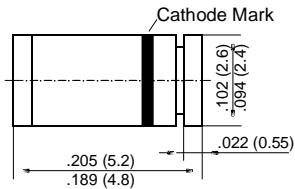


ZMU100 THRU ZMU180

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

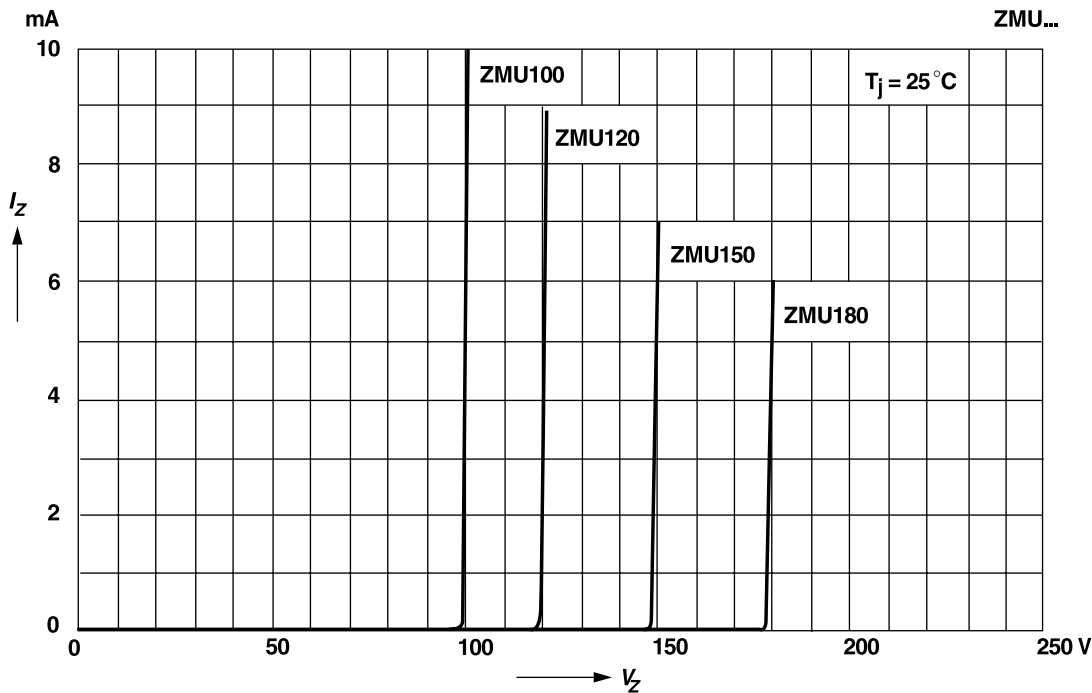
(1) Tested with pulses t_p = 5 ms

(2) Valid provided that electrodes are kept at ambient temperature

RATINGS AND CHARACTERISTIC CURVES ZMU100 THRU ZMU180

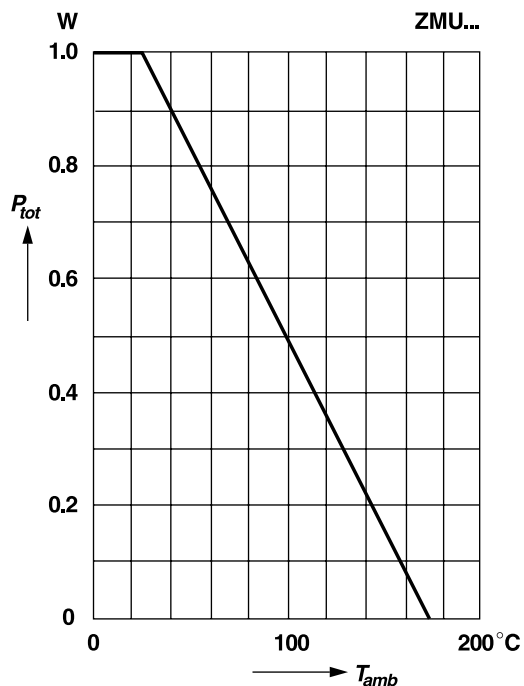
Breakdown characteristics

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



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

