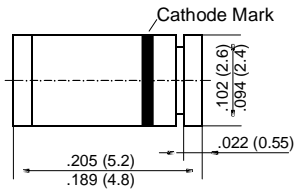


# ZMU100 THRU ZMU180

## 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 <sup>(1)</sup>	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 <sub>thJA</sub>	–	–	170 <sup>1)</sup>	°C/W

### NOTES:

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

Type	Zener voltage <sup>(1)</sup> at I <sub>ZT</sub> V <sub>Z</sub> (V)	Dynamic Resistance at I <sub>ZT</sub> f = 1 kHz r <sub>Zj</sub> (Ω)	Temp. Coeff. of Zener Voltage at I <sub>ZT</sub> α <sub>VZ</sub> (10 <sup>-4</sup> /K)	Test current I <sub>ZT</sub> (mA)	Reverse Voltage at I <sub>R</sub> = .5 μA V <sub>R</sub> (V)	Admissible Zener current <sup>(2)</sup> at T <sub>amb</sub> = 25°C I <sub>Z</sub> (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:

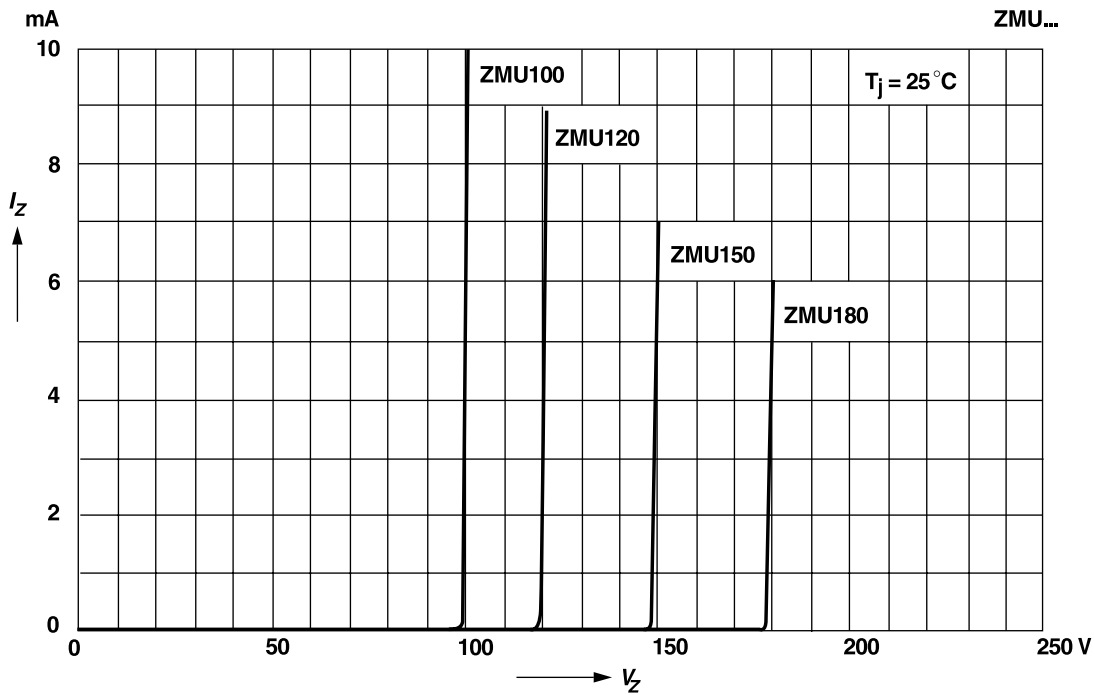
(1) Tested with pulses t<sub>p</sub> = 5 ms

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

# RATINGS AND CHARACTERISTIC CURVES ZMU100 THRU ZMU180

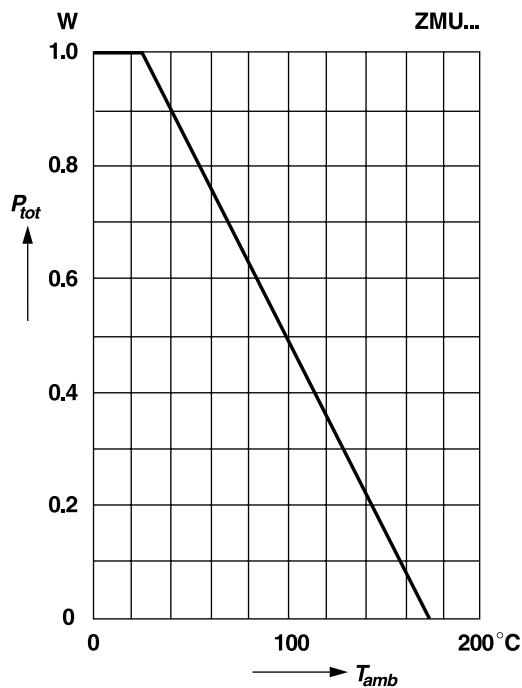
## Breakdown characteristics

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



## 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

