



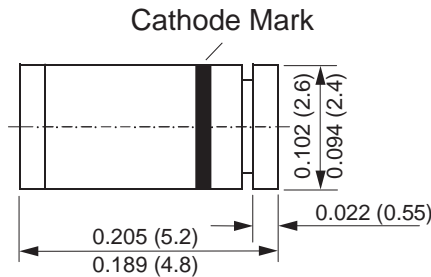
Zener Diodes

V_z Range 100 to 180V
Power Dissipation 1.0W

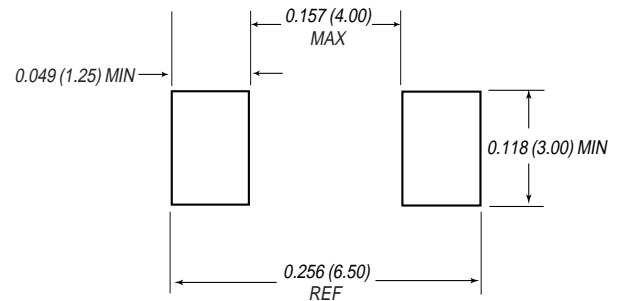


Glass MELF

Mounting Pad Layout



Dimensions in inches and (millimeters)



Mechanical Data

Case: MELF Glass Case

Weight: approx. 0.25g

Packaging Codes/Options:

E4/5K per 13" reel (12mm tape), 10K/box
25/1.5K per 7" reel (12mm tape), 12K/box

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.

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current (see Table "Characteristics")			
Power Dissipation at T _{amb} = 25°C	P _{tot}	1.0 ⁽¹⁾	W
Thermal Resistance Junction to Ambient Air	R _{thJA}	170 ⁽¹⁾	°C/W
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.

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

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 /°C)		Test current I _{ZT} (mA)	Reverse Voltage at I _R = 0.5 mA V _R (V)	Admissible Zener current ⁽²⁾ at T _{amb} = 25°C I _z (mA)
	Min	Max		Min	Max			
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

ZMU100 thru ZMU180

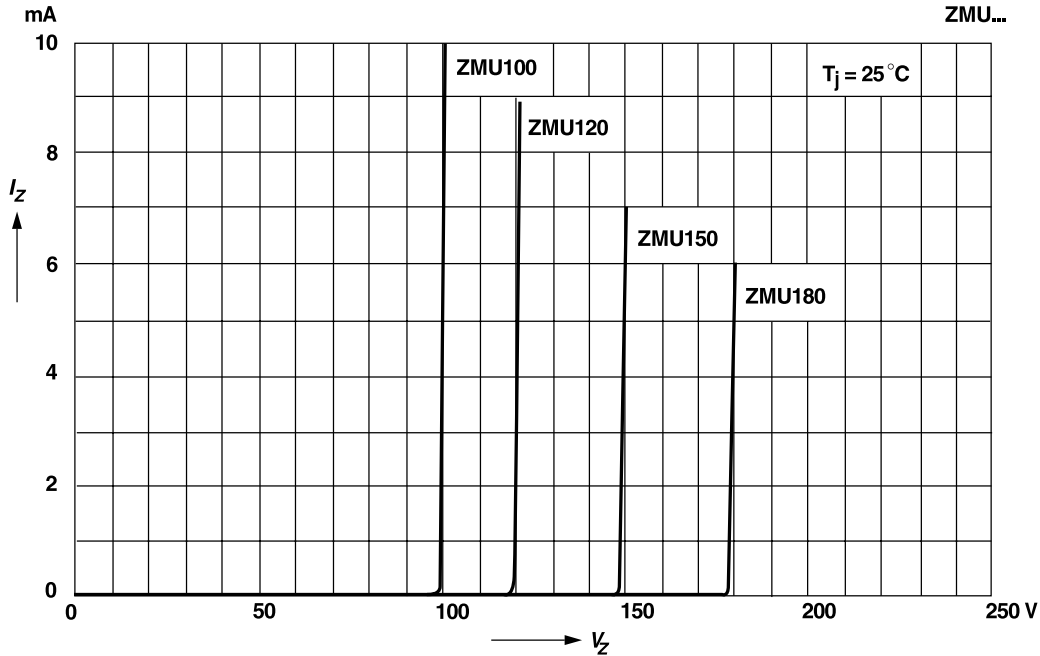
Vishay Semiconductors
formerly General Semiconductor



Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

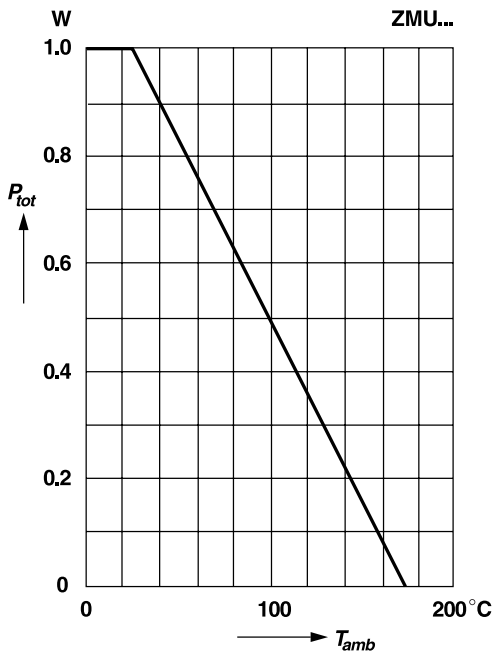
Breakdown characteristics

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



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

