

Features

Silicon Planar Power Zener Diodes

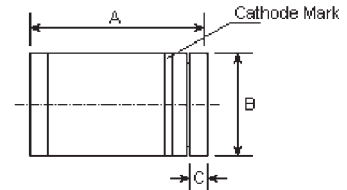
for use in stabilizing and clipping circuits with higher power rating. The Zener voltage are graded according to the international E12 standard. Smaller voltage tolerances on request.

These diodes are also available in DO-41 case with the type designation ZPU100 thru ZPU180.

These diodes are delivered taped.
Details see "Taping".

Weight approx. : 0.25g

MELF



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.189	0.205	4.8	5.2	
B	0.092	0.100	2.35	2.55	φ
C	0.016	-	0.4	-	

Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$)

	Symbols	Values	Units
Zener current see Table "Characteristics"			
Power dissipation at $T_{amb}=25^{\circ}\text{C}$	P_{tot}	1 ¹⁾	W
Junction Temperature	T_j	175	$^{\circ}\text{C}$
Storage temperature range	T_s	-55 to +175	$^{\circ}\text{C}$

Note:

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

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

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient Air	R_{thA}	-	-	170 ¹⁾	K/W

Note:

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

Type	Zener voltage ²⁾ at I_{ZT}	Dynamic resistance at I_{ZT} $f=1\text{KHz}$	Temp. coeff. of Zener Volt. at I_{ZT}	Test current	Reverse voltage at $I_R=0.5\mu\text{A}$	Admissible Zener current ¹⁾ at $T_{\text{amb}}=25^\circ\text{C}$
	V_Z	r_{Zj}	α_{VZ}	I_{ZT}	V_R	I_{ZM}
	V	Ω	$10^{-4}/\text{K}$	mA	V	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:

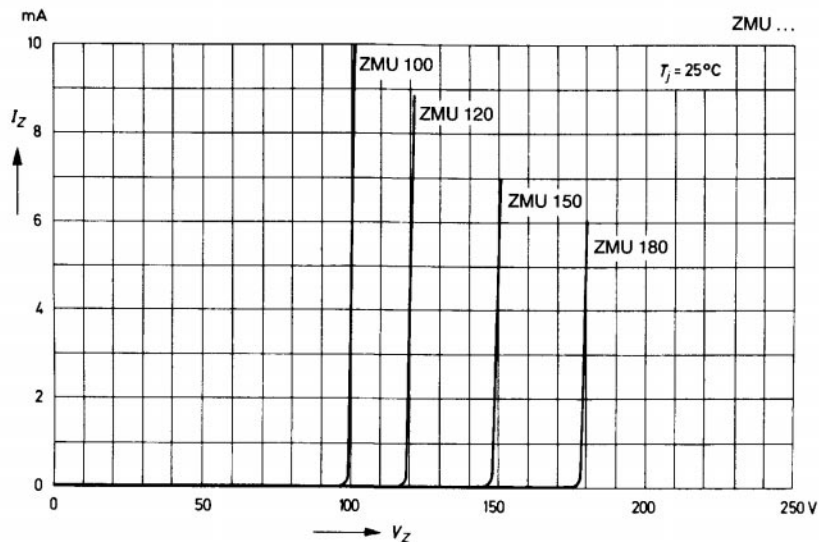
(1) Valid provided that electrodes are kept at ambient temperature.

(2) Tested with pulses $t_p=20\text{ms}$.

RATINGS AND CHARACTERISTIC CURVES

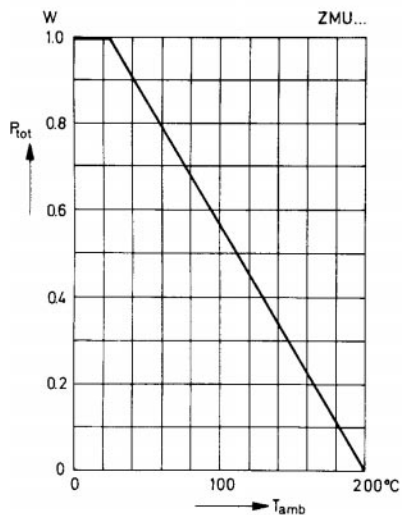
Breakdown characteristics

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



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

