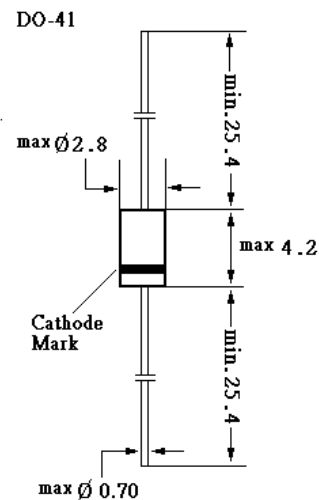


ZPU100 THRU ZPU180

SILICON PLANAR ZENER DIODES

for use in stabilizing and clipping circuits with higher power rating. The Zener voltages are graded according to the international E12 standard. Smaller voltage tolerances are available upon request. These diodes are also available in MELF case with the type designation ZMU100...ZMU180.



Dimensions in mm

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

	Symbol	Value	Unit
Zener Current (see Table "Characteristics")			
Power Dissipation	P_{tot}	1.3 ⁽¹⁾	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	130 ⁽¹⁾	$^\circ\text{C/W}$
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +175	$^\circ\text{C}$

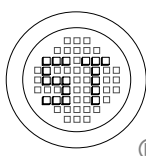
Notes: (1) Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

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

TYPE	Zener Voltage ⁽²⁾ at I_{ZT} V_Z (V)		Dynamic Resistance at I_{ZT} $f = 1\text{KHz}$ $r_{zj} (\Omega)$	Temp. Coeff. of Zener Voltage at I_{ZT} $\alpha_{VZ} (10^{-4}/^\circ\text{C})$		Test Current I_{ZT} (mA)	Reverse Voltage at $I_R=0.5\mu\text{A}$ V_R (V)	Admissible Zener Current ⁽¹⁾ at $T_{\text{amb}} = 25^\circ\text{C}$ I_Z (mA)
	Min.	Max.		Min.	Max.			
ZPU100	88	110	140(<300)	+9	+13	5	>75	10
ZPU120	107	134	170(<330)	+9	+13	5	>90	8.5
ZPU150	130	165	200(<360)	+9	+13	5	>112	7
ZPU180	160	200	220(<380)	+9	+13	5	>134	5.5

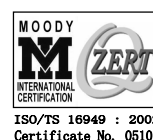
Notes: (1) Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.

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



SEMTECH ELECTRONICS LTD.

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