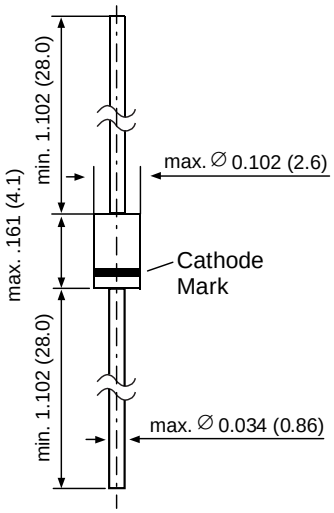
ZPU100 THRU ZPU180

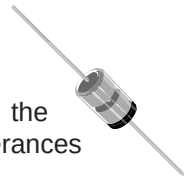
ZENER DIODES

DO-41 Glass



Dimensions in inches and (millimeters)

FEATURES



- Silicon Planar 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 types are also available in MELF case with the type designation ZMU100 … ZMU180.

MECHANICAL DATA

Case: DO-41 Glass Case
Weight: approx. 0.35 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°C	P_{tot}	1.3(1)	W
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_S	– 55 to +175	°C

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

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ZPU100 THRU ZPU180

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	*MIN.*	*TYP.*	*MAX.*	*UNIT*
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	130(1)	°C/W

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

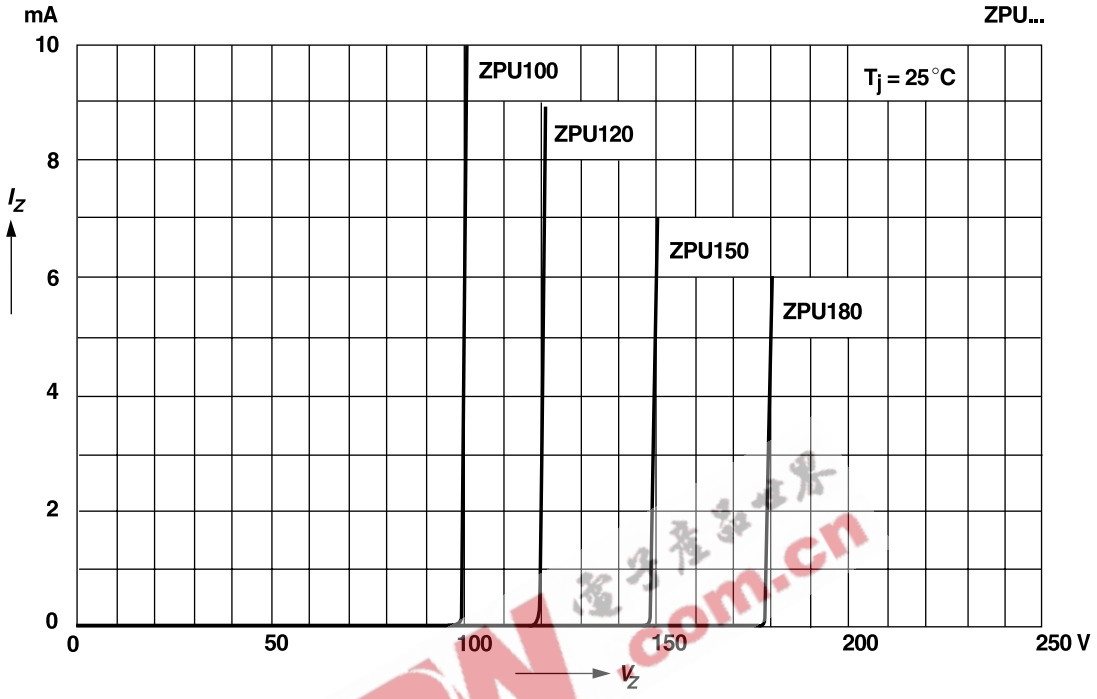
Type	Zener voltage(2) at I_{ZT} V_Z (V)	Dynamic Resistance at I_{ZT} f = 1 kHz r_{zj} (Ω)	Temp. Coeff. of Zener Voltage at I_{ZT} α_{VZ} 10^{-4}/K	Test current I_{ZT} (mA)	Reverse Voltage at I_R = 0.5 µA V_R (V)	Admissible Zener current(1) at T_{amb} = 25°C I_Z (mA)
ZPU100	88 … 110	140 (< 300)	+9 … +13	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 10 mm from case
(2) Tested with pulses t_p = 5 ms

RATINGS AND CHARACTERISTIC CURVES ZPU100 THRU ZPU180

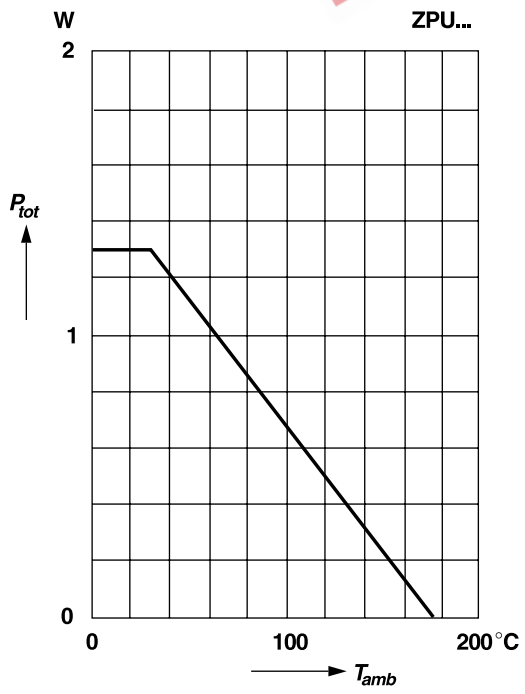
Breakdown characteristics

T_j = constant (pulsed)



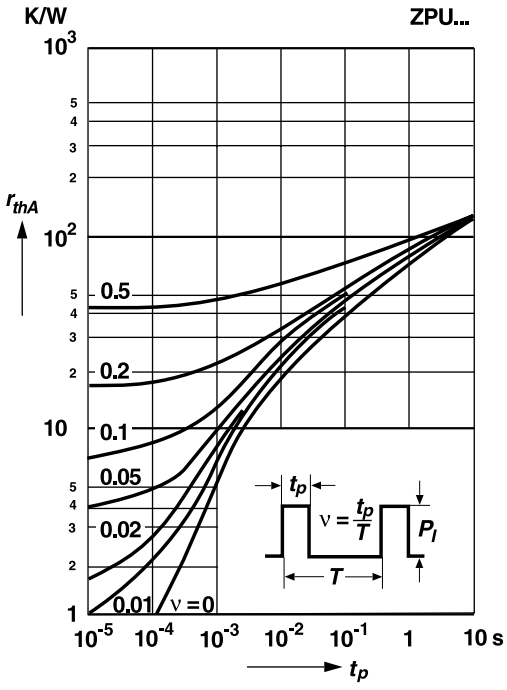
Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case



Pulse thermal resistance versus pulse duration

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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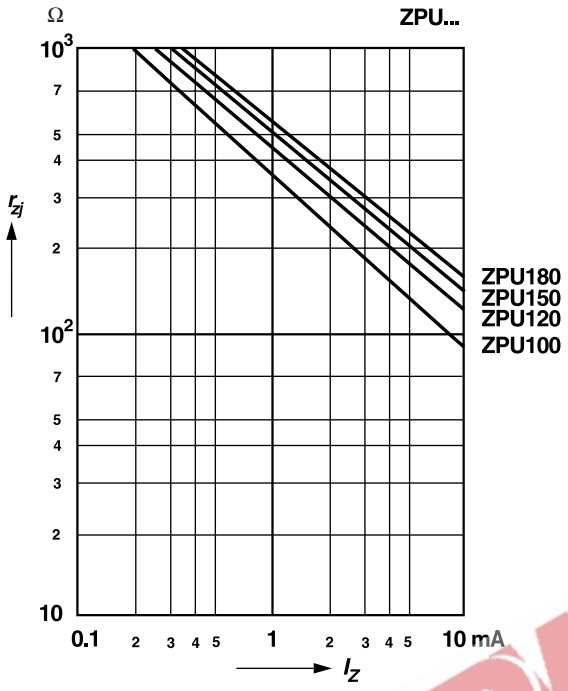
RATINGS AND CHARACTERISTIC CURVES ZPU100 THRU ZPU180

Dynamic resistance versus Zener current



Thermal resistance versus lead length