

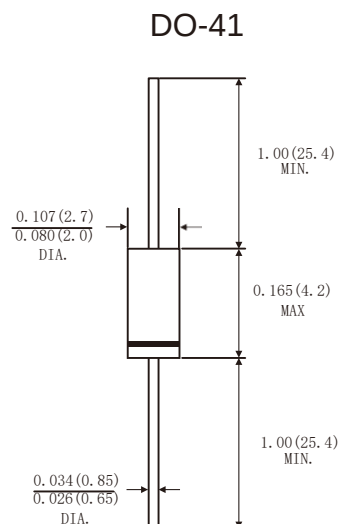
1W SILICON PLANAR ZENER DIODES

Features:

- Silicon planar power zener diode
For use in stabilizing and clipping circuits with high power rating.
- Standard Zener voltage tolerance is $\pm 10\%$.
Add suffix "A" for $\pm 5\%$ tolerance and suffix "B" for $\pm 2\%$ tolerance.
- Other tolerance is available upon request.
- High temperature soldering guaranteed: $260^{\circ}\text{C}/10$ seconds at terminals
- Component in accordance to RoHS 2011/65/EU

Mechanical Data:

- Case: DO-41 plastic case
- Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES) ($T_A=25^{\circ}\text{C}$)

Parameter	Symbols	Value	Units
Forward voltage at $I_F=200\text{mA}$	V_F	2.0	V
Power dissipation at $T_L=75^{\circ}\text{C}$	P_{tot}	1 ¹⁾	W
Junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

1) T_L =Lead temperature at 3/8" (9.5mm) from body

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

Part Number	Nominal Zener Voltage @ I_T			$I_{ZT}(\text{mA})$	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_{Z\text{AVE.}}(\text{V})$	$V_{Z\text{MIN.}}(\text{V})$	$V_{Z\text{MAX.}}(\text{V})$		$Z_{ZT\text{MAX}}(\Omega)$ @ I_{ZT}	$Z_{ZK\text{MAX}}(\Omega)$ @ I_{ZK}	$I_{ZK}(\text{mA})$	$I_R(\mu\text{A})@V_R$	$V_R(\text{V})$	
1EZ390A	390.0	370.5	409.5	0.7	3000.0	10000	0.25	0.5	300.0	2.2

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

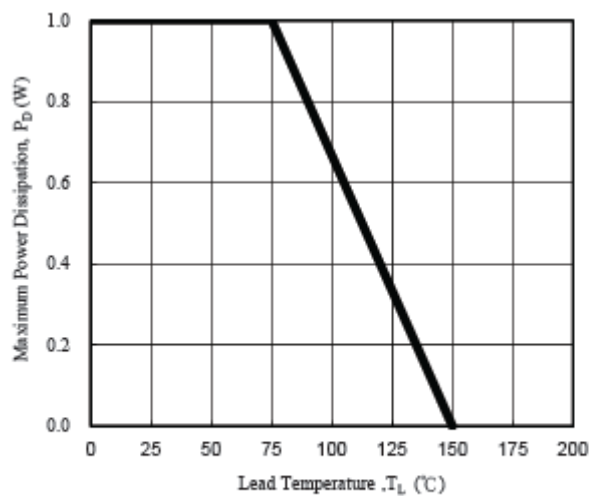


Fig. 1 - Power Temperature Derating Curve

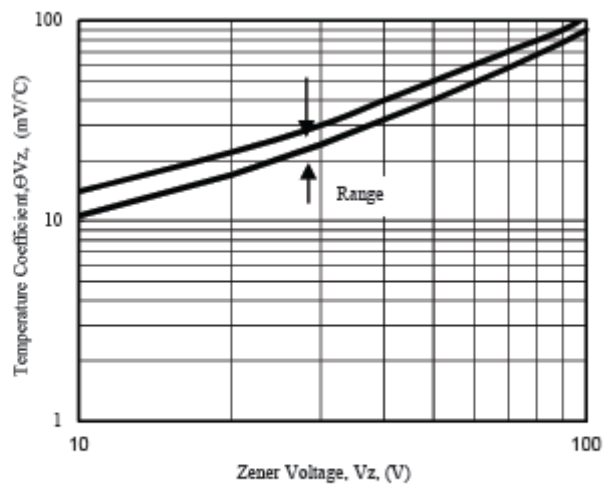


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

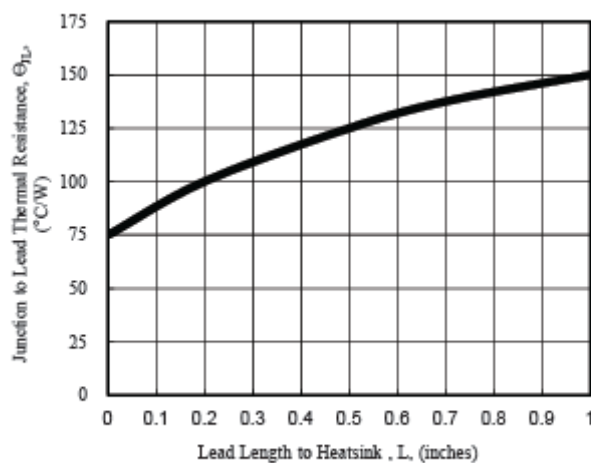


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

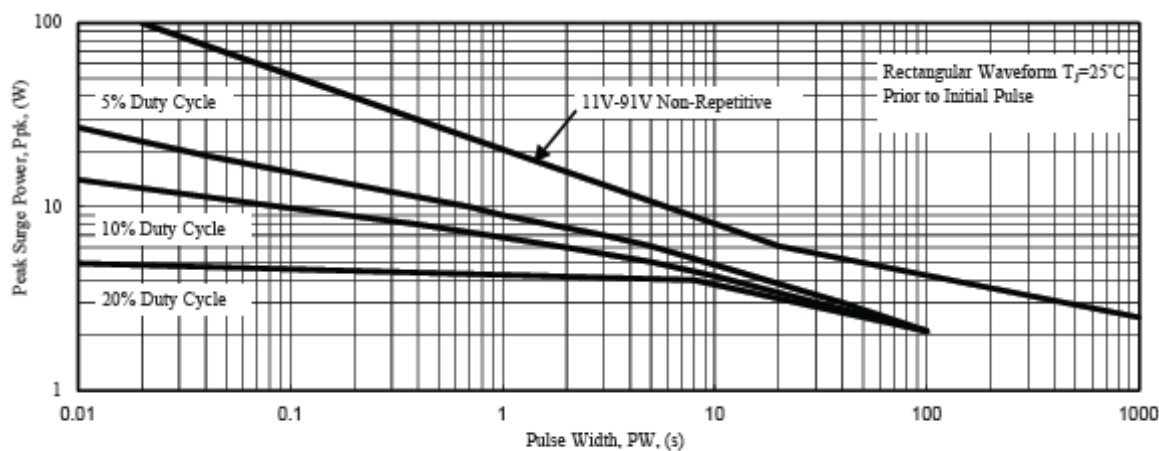


Fig. 4 - Maximum Surge Power