

THERMAL CHARACTERISTICS

Characteristic	Symbol	5 mm x 5 mm (Note 2)	1 Inch x 1/2 inch (Note 3)	Unit
Thermal Resistance – Junction-to-Lead	$R_{\theta JL}$	34	20	$^{\circ}\text{C/W}$
Thermal Resistance – Junction-to-Ambient	$R_{\theta JA}$	138	77	

ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage (Note 1), See Figure 2 ($I_F = 0.1\text{ A}$) ($I_F = 1.0\text{ A}$) ($I_F = 2.0\text{ A}$)	V_F	$T_J = 25^{\circ}\text{C}$	$T_J = 100^{\circ}\text{C}$	V
		0.455	0.360	
		0.530	0.455	
Maximum Instantaneous Reverse Current, See Figure 4 ($V_R = 20\text{ V}$) ($V_R = 10\text{ V}$) ($V_R = 5.0\text{ V}$)	I_R	$T_J = 25^{\circ}\text{C}$	$T_J = 100^{\circ}\text{C}$	μA
		10	1600	
		1.0	500	
		0.5	300	

1. Pulse Test: Pulse Width $\leq 250\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$.
2. Mounted on a Pad Size of 5 mm x 5 mm, PC Board FR4 (2 pads).
3. Mounted on a Pad Size of 1 inch x 1/2 inch, PC Board FR4 (2 pads).

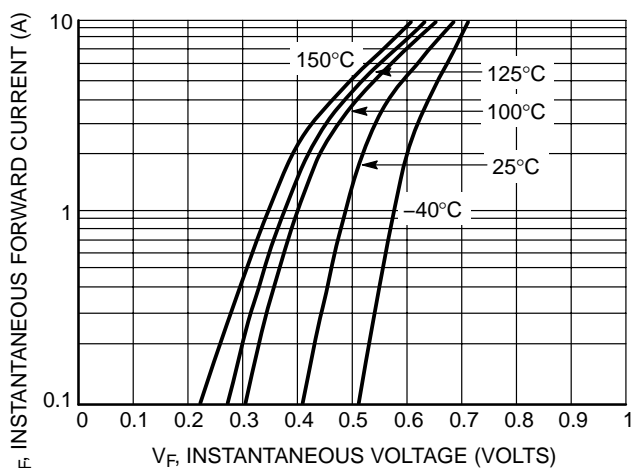


Figure 1. Typical Forward Voltage

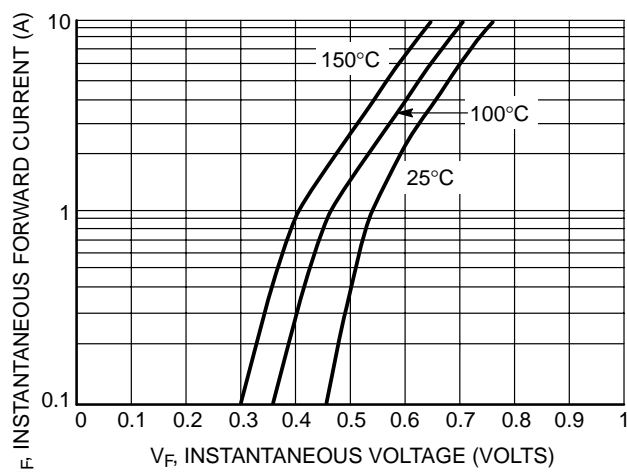


Figure 2. Maximum Forward Voltage

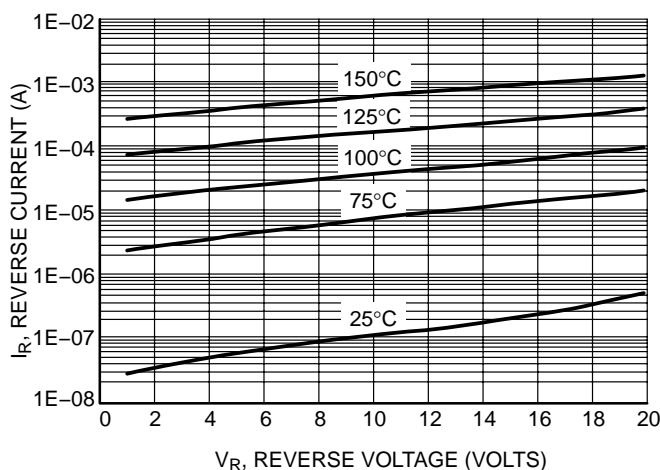


Figure 3. Typical Reverse Current

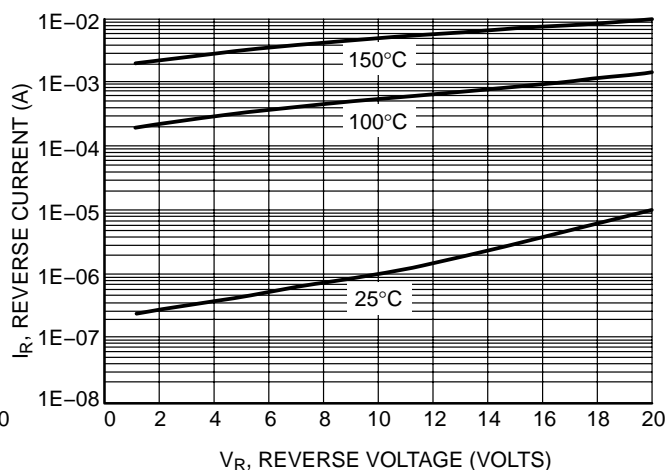


Figure 4. Maximum Reverse Current

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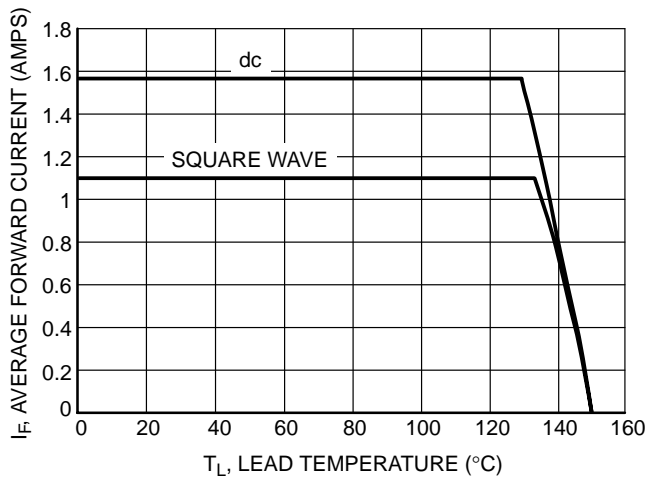


Figure 5. Current Derating

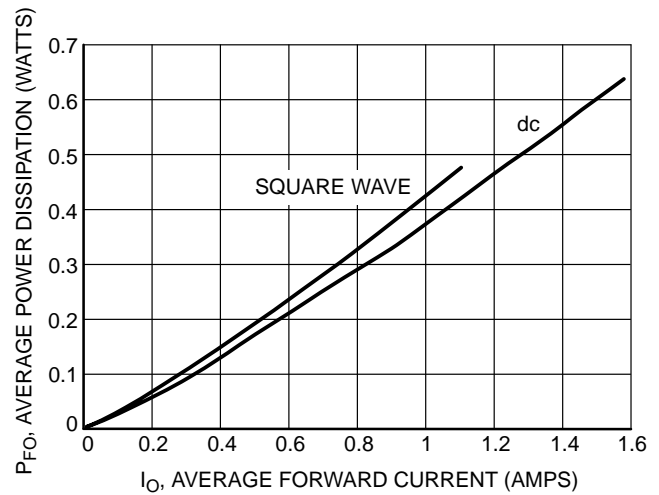


Figure 6. Forward Power Dissipation

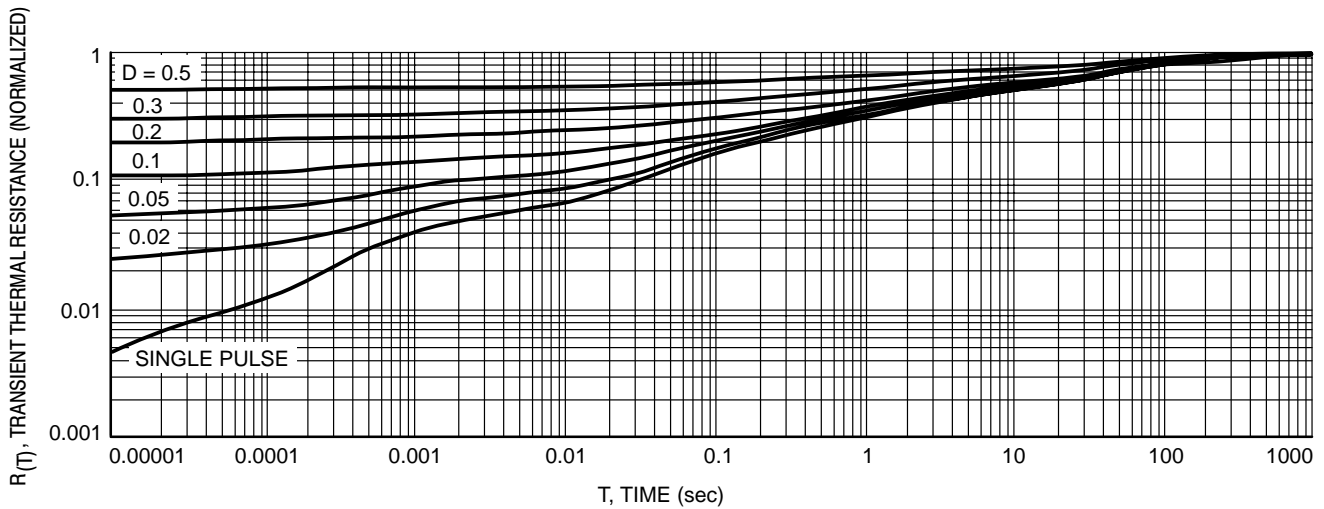


Figure 7. Thermal Resistance

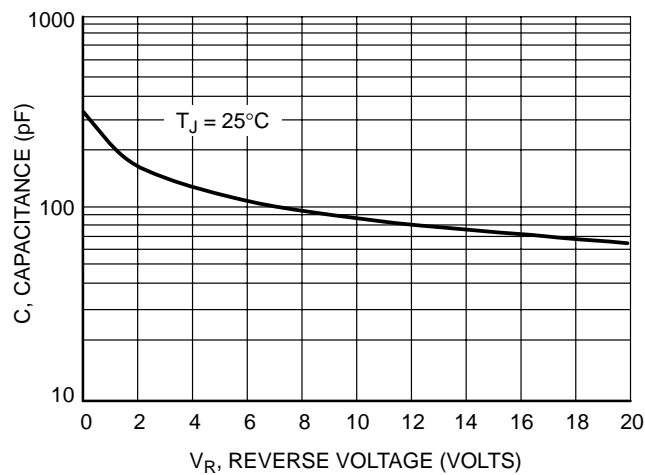
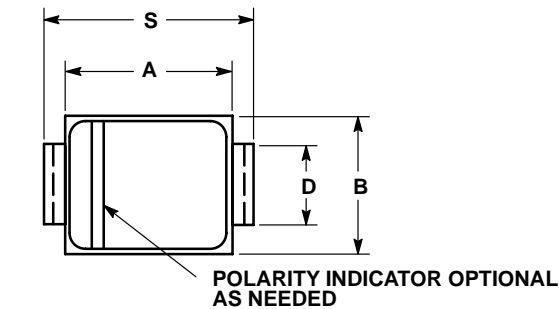


Figure 8. Typical Junction Capacitance

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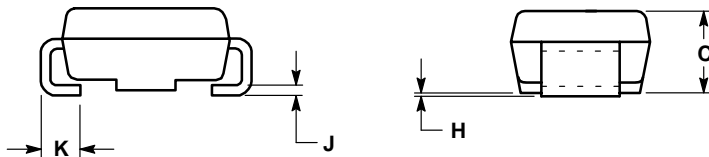
PACKAGE DIMENSIONS

SMA CASE 403D-02 ISSUE A

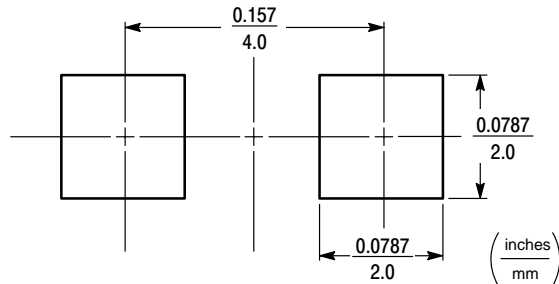


- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
 2. CONTROLLING DIMENSION: INCH.
 3. 403D-01 OBSOLETE, NEW STANDARD IS 403D-02.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.160	0.180	4.06	4.57
B	0.090	0.115	2.29	2.92
C	0.075	0.095	1.91	2.41
D	0.050	0.064	1.27	1.63
H	0.002	0.006	0.05	0.15
J	0.006	0.016	0.15	0.41
K	0.030	0.060	0.76	1.52
S	0.190	0.220	4.83	5.59




SOLDERING FOOTPRINT*



SMA FOOTPRINT

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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