Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	20	V
Average Rectified Output Current	I_O	2	A
Repetitive Peak Forward Current, t_p = 1ms square wave with 25% duty cycle	I_{FRM}	6	A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	20	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	$R_{\theta JA}$	410	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	270	°C/W
Typical Thermal Resistance Junction to Case (Note 5)	$R_{\theta JC}$	100	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	$R_{\theta JC}$	70	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V_F	— — —	0.28 0.40 0.48	— 0.430 0.525	V	I_F = 0.1A, T_J = +25°C I_F = 1A, T_J = +25°C I_F = 2A, T_J = +25°C
Leakage Current (Note 7)	I_R	— —	10 25	80 200	µA µA	V_R = 10V, T_J = +25°C V_R = 20V, T_J = +25°C
Total Capacitance	C_T	—	54	—	pF	V_R = 5V, f = 1 MHz

Notes: 5. Device mounted on FR-4 substrate, 2oz. Copper; minimum recommended pad layout per http://www.diodes.com/datasheets/ap02001.pdf.
6. Device mounted on FR4 substrate, 2oz. Copper, 1-inch square Cu pad.
7. Short duration pulse test used to minimize self-heating effect.

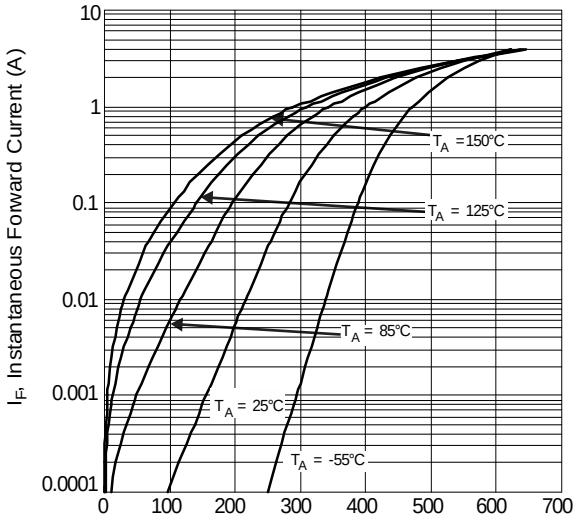


Figure 1 Typical Forward Characteristics

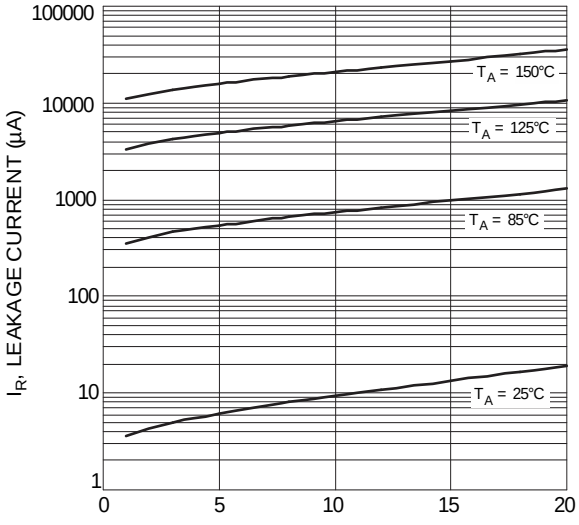


Figure 2 Typical Reverse Characteristics

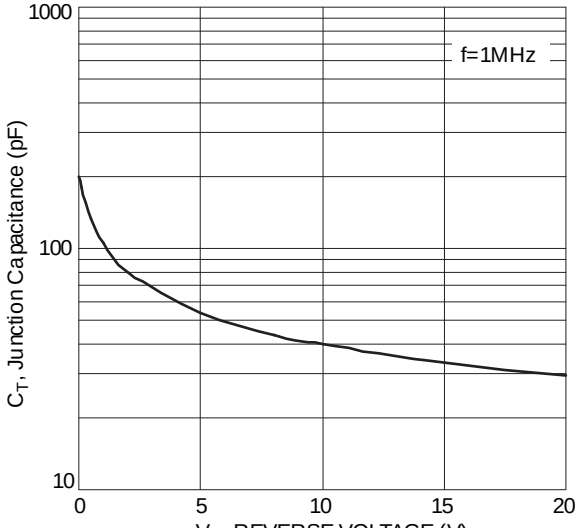


Figure 3 Typical Junction Capacitance

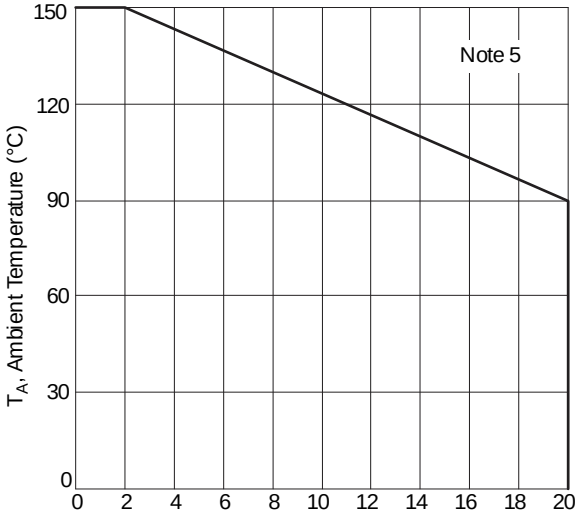


Figure 4 Operating Temperature Derating

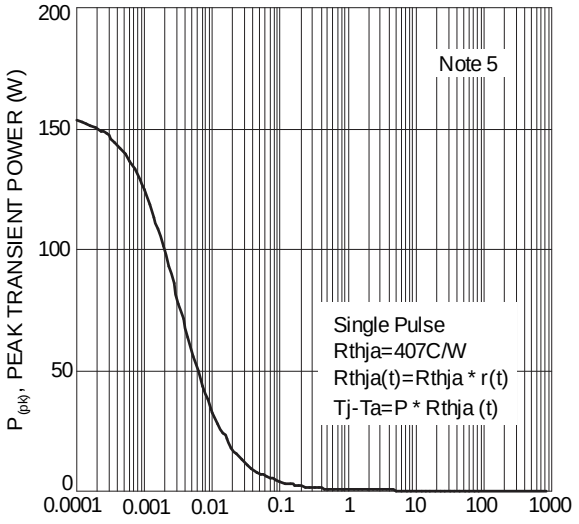


Figure 5 Single Pulse Maximum Power Dissipation

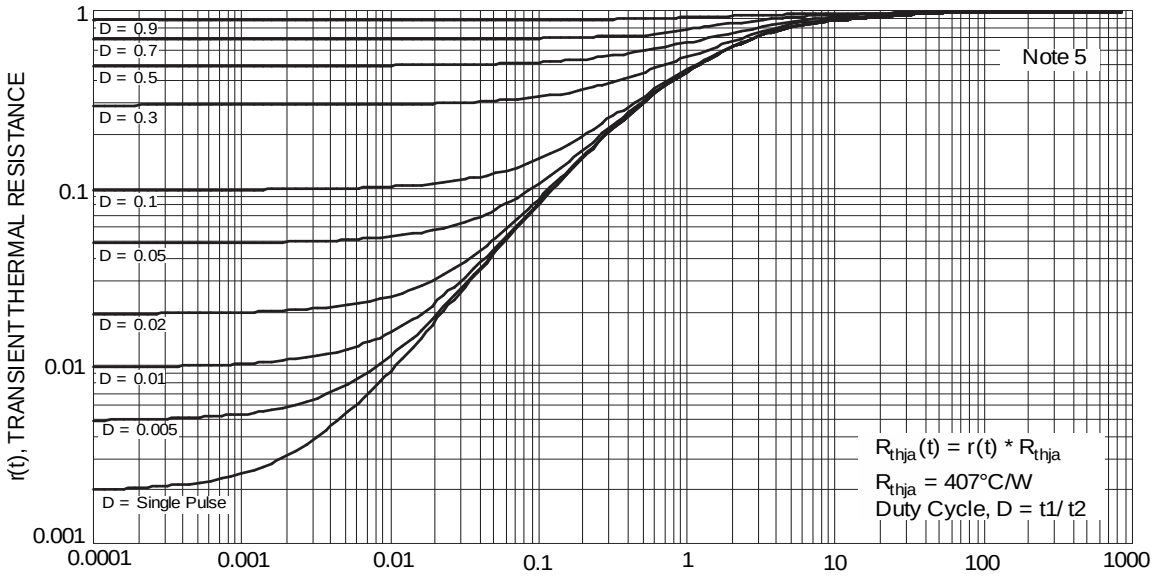
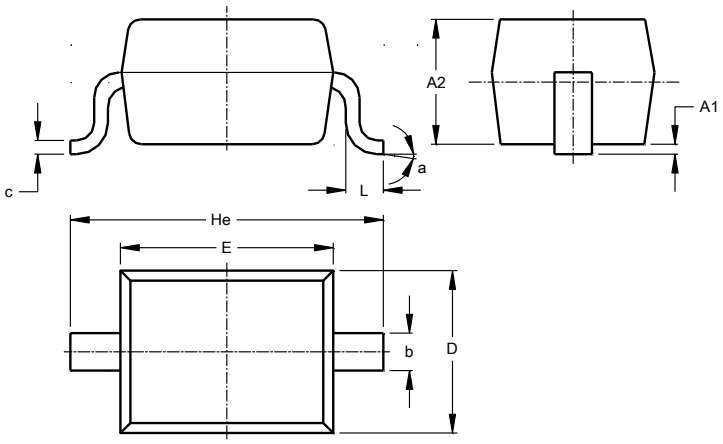


Figure 6 Transient Thermal Resistance

Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.

SOD-323

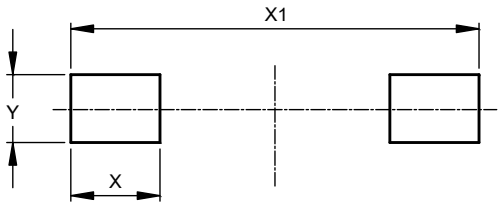


SOD-323			
Dim	**Min**	**Max**	**Typ**
A1	—	0.10	0.05
A2	1.00	1.10	1.05
b	0.25	0.35	0.30
c	0.10	0.15	0.11
D	1.20	1.40	1.30
E	1.60	1.80	1.70
He	2.30	2.70	2.50
L	0.20	0.40	0.30
a	8°		
All Dimensions in mm			

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.

SOD-323



Dimensions	Value (in mm)
X	0.590
X1	2.700
Y	0.450

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