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	V_{RRM}	40	V
Average Rectified Output Current	I_O	1.0	A
Repetitive Peak Forward Current (Pulse Wave = 1 sec, Duty Cycle = 66%)	I_{FRM}	5.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	18	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	$R_{\Theta JA}$	190	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\Theta JA}$	105	°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	—	0.37	0.41	V	I_F = 0.5A
		—	0.44	0.48		I_F = 1.0A
Reverse Current (Note 7)	I_R	— —	— —	22 100	μA	V_R = 10V V_R = 40V
Junction Capacitance	C_J	—	58	—	pF	V_R = 4V, f = 1.0MHz

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

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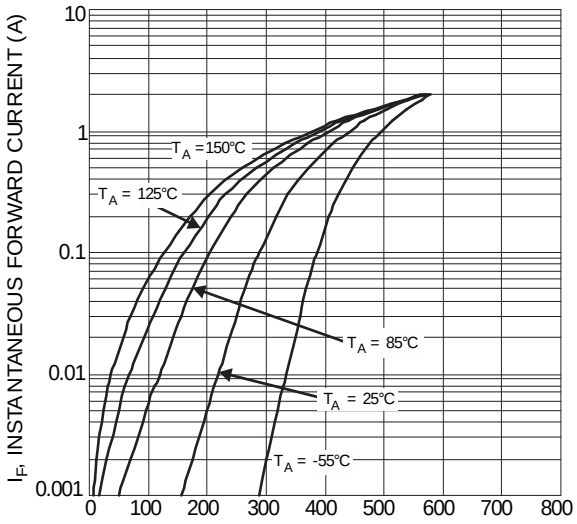

Figure 1 Typical Forward Characteristics

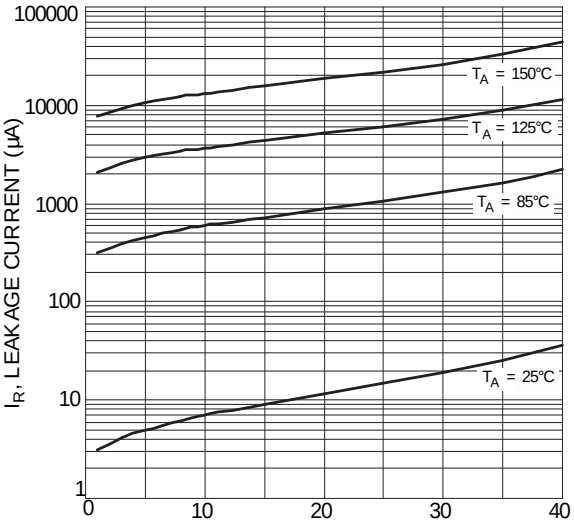

Figure 2 Typical Reverse Characteristics

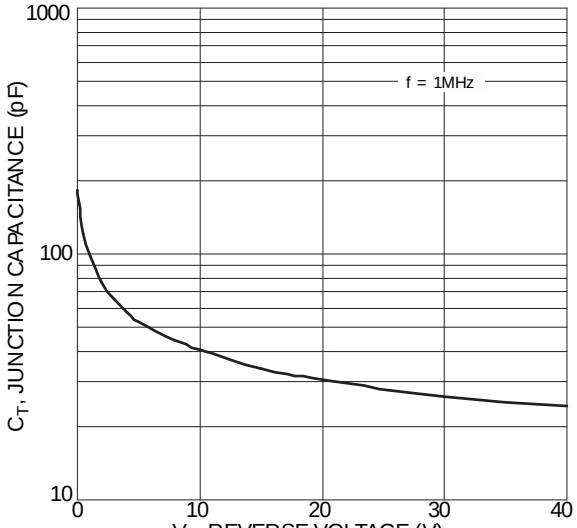

Figure 3 Typical Junction Capacitance

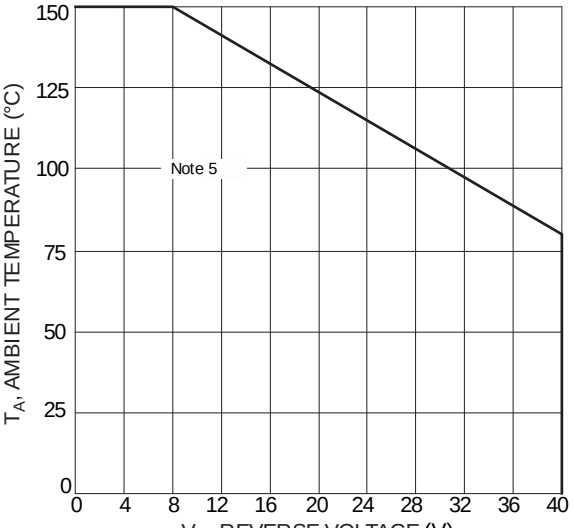

Figure 4 Operating Temperature Derating

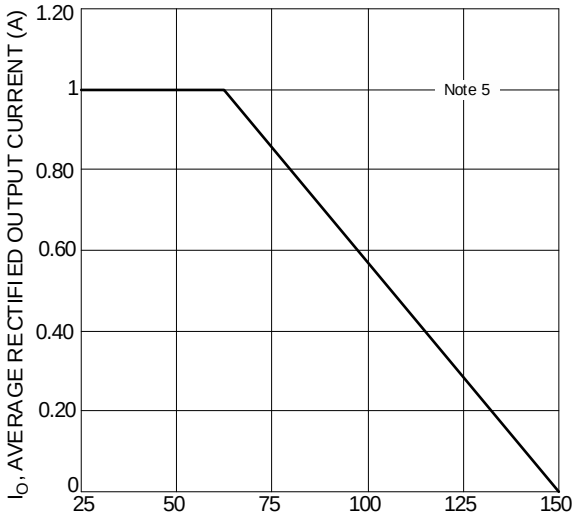

Figure 5 DC Forward Current Derating

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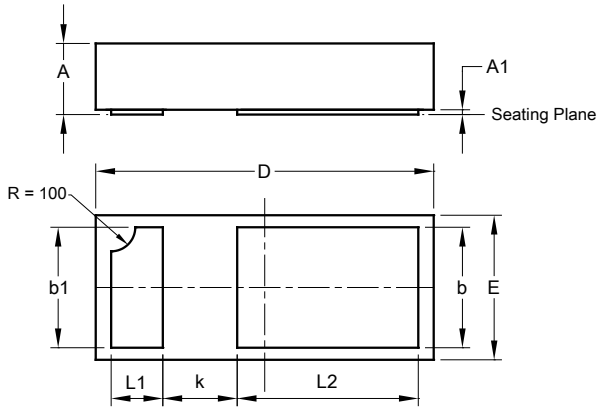
Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

X3-WLB1406-2

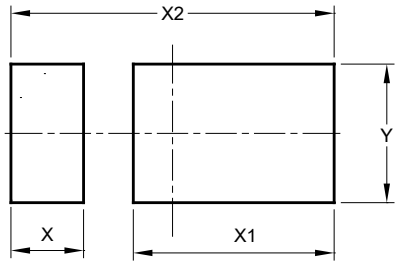


X3-WLB1406-2			
Dim	**Min**	**Max**	**Typ**
A	0.250	0.300	0.275
A1	0.000	0.015	—
b	0.45	0.55	—
b1	0.45	0.55	—
D	1.37	1.43	1.40
E	0.57	0.63	0.60
k	—	—	0.30
L1	0.20	0.26	—
L2	0.70	0.80	—
All Dimensions in mm			

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

X3-WLB1406-2



Dimensions	Value (in mm)
X	0.304
X1	0.840
X2	1.352
Y	0.580

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