

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	A
Repetitive peak Forward Current (Pulse Wave = 1 msec, Duty Cycle = 25%)	I _{FRM}	5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	14	A

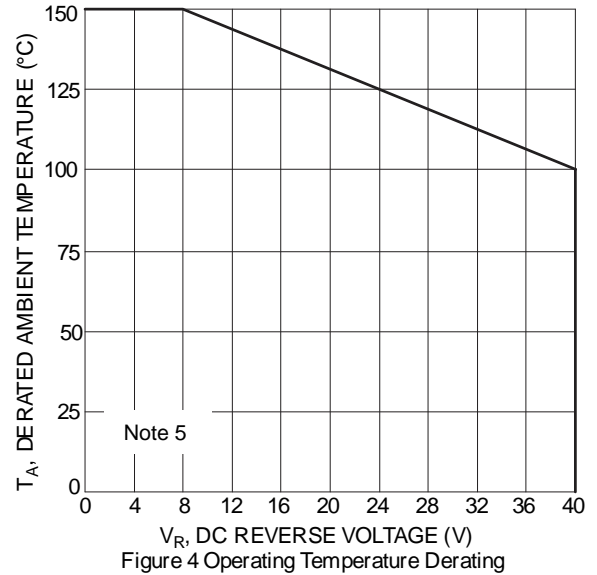
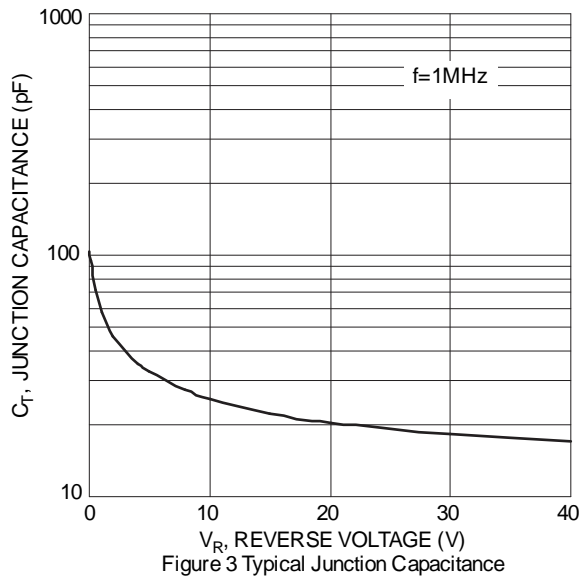
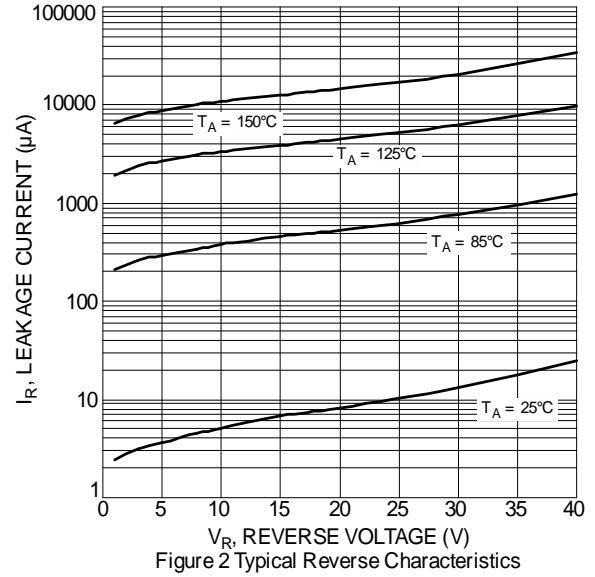
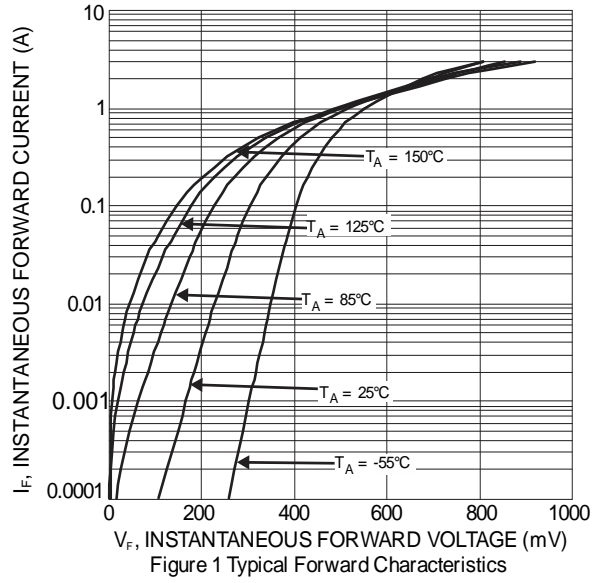
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	R _{θJA}	135	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	80	°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	–	0.41	0.46	V	I _F = 0.5A, T _J = +25°C
		–	0.51	0.56		I _F = 1.0A, T _J = +25°C
		–	0.49	–		I _F = 1.0A, T _J = +125°C
Leakage Current (Note 7)	I _R	–	–	15	μA	V _R = 10V, T _J = +25°C
		–	–	75		V _R = 40V, T _J = +25°C
		–	9.5	–	mA	V _R = 40V, T _J = +125°C
Junction Capacitance	C _T	–	35	–	pF	V _R = 4V, f = 1.0MHz

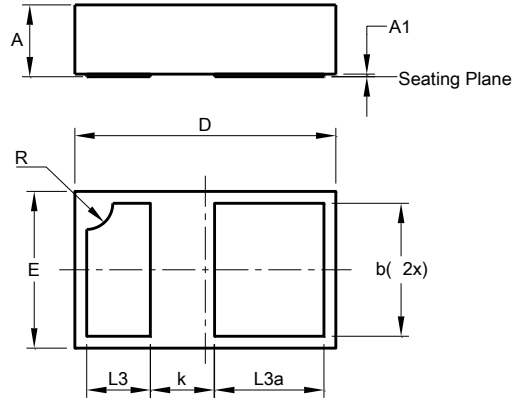
Notes: 5. Device mounted on FR-4 PCB, 2oz. Copper, minimum recommended pad layout per <http://www.diodes.com/datasheets/ap02001.pdf>.
6. Device mounted on FR-4 PCB, 2oz. 1 square inch Copper.
7. Short duration pulse test used to minimize self-heating effect.



Package Outline Dimensions

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

X3-WLB1006-2

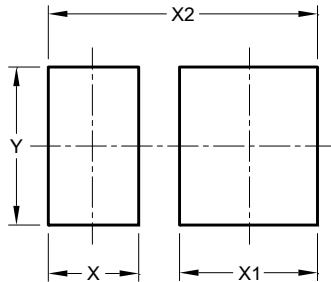


X3-WLB1006-2			
Dim	Min	Max	Typ
A	0.25	0.30	0.275
A1	0.00	0.01	-
b	0.450	0.550	0.500
D	0.95	1.05	1.000
E	0.55	0.65	0.600
k	-	-	0.288
L3	0.194	0.294	0.244
L3a	0.350	0.450	0.400
R	-	-	0.100
All Dimensions in mm			

Suggested Pad Layout

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

X3-WLB1006-2



Dimensions	Value (in mm)
X	0.332
X1	0.507
X2	0.989
Y	0.579

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