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

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive 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}	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Output Current (See Figure 1)	I_O	0.2	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	5.0	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance Thermal Resistance Junction to Soldering (Note 5) Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JS}$ $R_{\theta JA}$	18 263	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175	°C

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

Characteristic	Symbol	Min	Typ.	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 7)	$V_{(BR)R}$	30	-	-	V	I_R = 400µA
Forward Voltage Drop	V_F	-	0.50 0.42 0.57 0.51	0.54 0.45 0.61 0.54	V	I_F = 0.1A, T_J = +25°C I_F = 0.1A, T_J = +150°C I_F = 0.2A, T_J = +25°C I_F = 0.2A, T_J = +150°C
Leakage Current (Note 7)	I_R	-	0.1 46	0.5 150	µA	V_R = 30V, T_J = +25°C V_R = 30V, T_J = +150°C

Notes: 5. Theoretical $R_{\theta JS}$ calculated from the top center of the die straight down to the PCB cathode tab solder junction.
6. FR-4 PCB, 2oz. Copper, minimum recommended pad layout per http://www.diodes.com/package-outlines.html.
7. Short duration pulse test used to minimize self-heating effect.

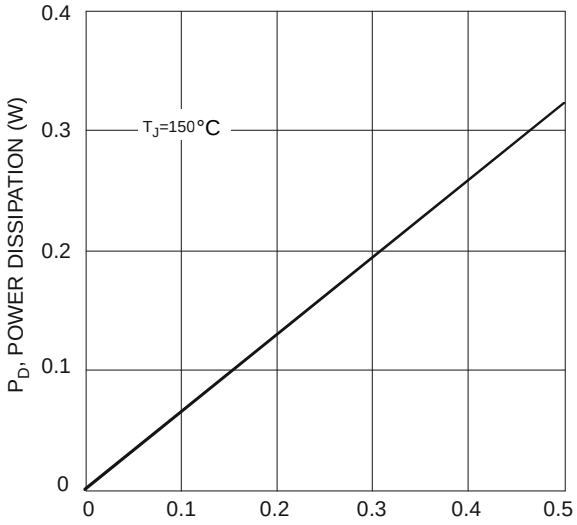


Fig. 1 Forward Power Dissipation

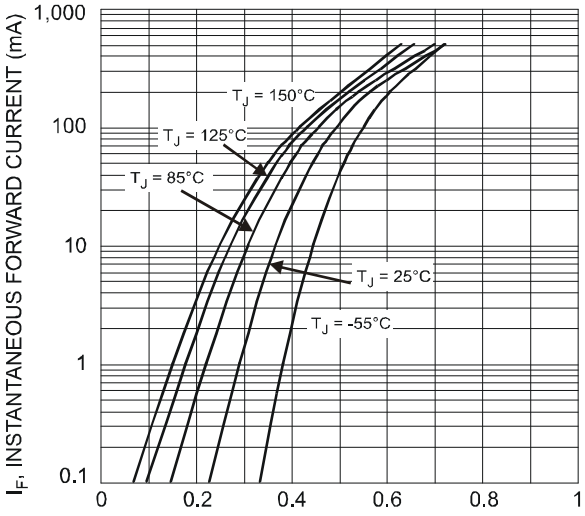


Fig. 2 Typical Forward Characteristics

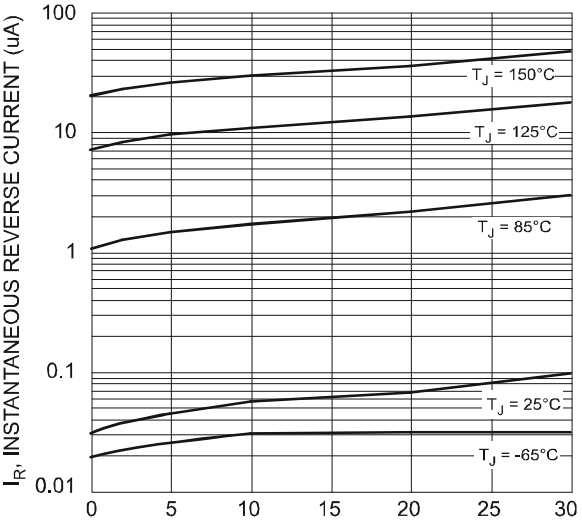


Fig. 3 Typical Reverse Characteristics

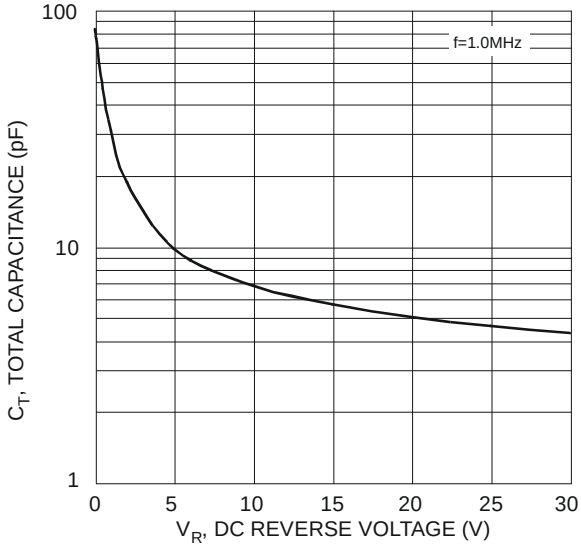


Fig. 4 Total Capacitance vs. Reverse Voltage

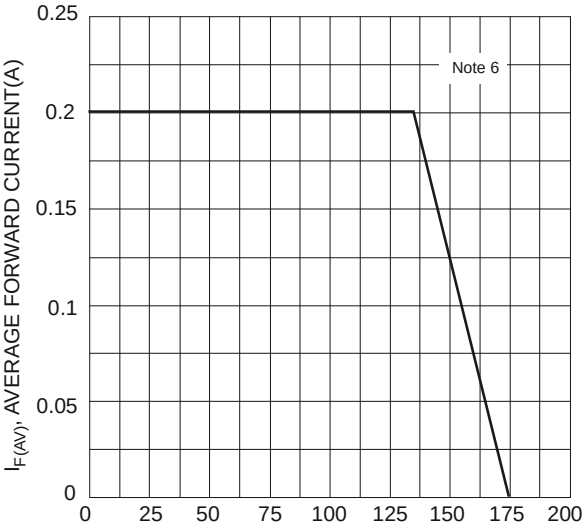


Fig. 5 Forward Current Derating Curve

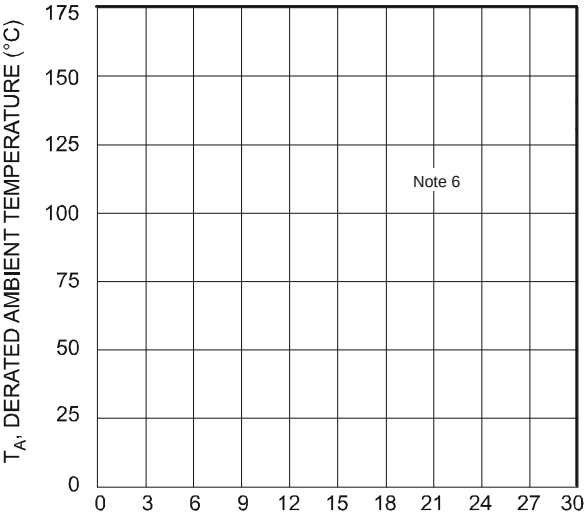
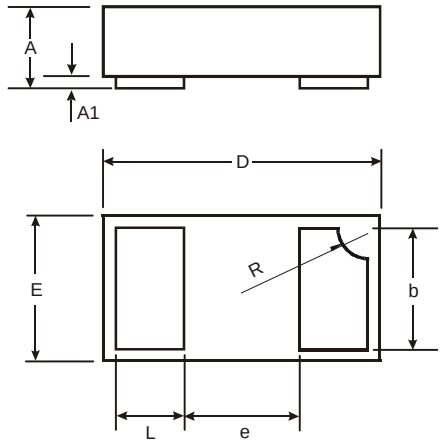


Fig. 6 Operating Temperature Derating

Package Outline Dimensions

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

X1-DFN1006-2

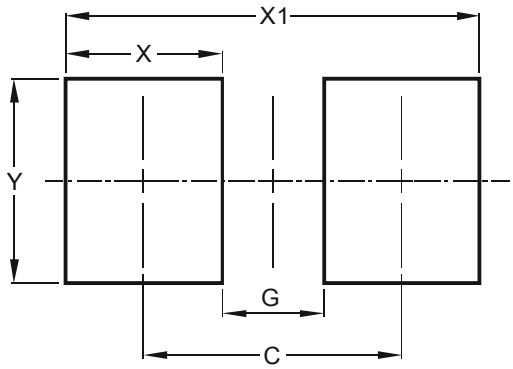


X1-DFN1006-2			
Dim	**Min**	**Max**	**Typ**
A	0.47	0.53	0.50
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
All Dimensions in mm			

Suggested Pad Layout

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

X1-DFN1006-2



Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
X1	1.10
Y	0.70

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