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	DFLR1200	DFLR1400	DFLR1600	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	V
Average Rectified Output Current (See Figure 4)	I_O	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	25			A

Thermal Characteristics

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{\theta JA}$	134	—	°C/W
Thermal Resistance, Junction to Soldering Point (Note 6)	$R_{\theta JS}$	—	6	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	—	-65 to +150	°C

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

Characteristic	Symbol	DFLR1200	DFLR1400	DFLR1600	Unit
Minimum Reverse Breakdown Voltage (Note 7) @I_R=10μA	$V_{(BR)R}$	200	400	600	V
Maximum Forward Voltage Drop @ I_F = 1.0A	V_F	1.1			V
Peak Reverse Leakage Current @ T_A = +25°C at Rated DC Blocking Voltage @ T_A = +125°C	I_R	3.0 100			μA
Typical Total Capacitance (f = 1MHz, V_R= 4.0VDC)	C_T	10			pF

Notes: 5. Theoretical $R_{\theta JS}$ calculated from the top center of the die straight down to the PCB/cathode tab solder junction.
6. Device mounted on 1in x 1in, FR-4 PCB; 2 oz Cu pad layout as shown on Diodes Incorporated's suggested pad layout document AP02001.pdf.
7. Short duration pulse test used to minimize self-heating effect.

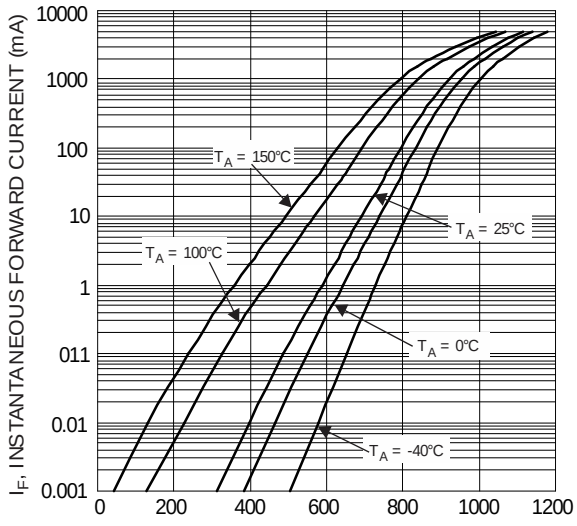


Figure 1 Typical Forward Characteristics

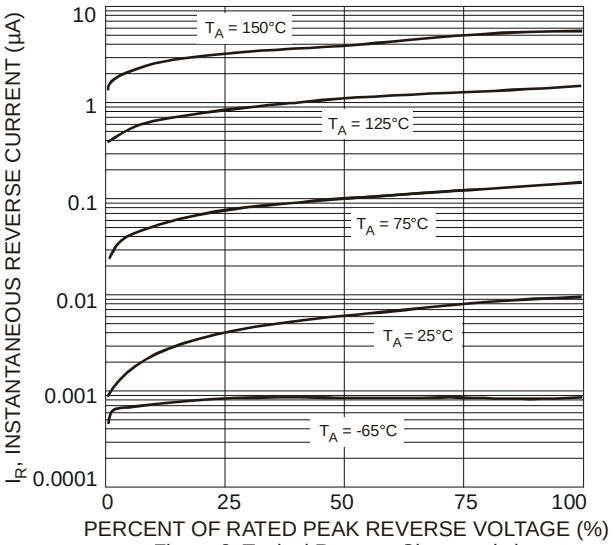


Figure 2 Typical Reverse Characteristics

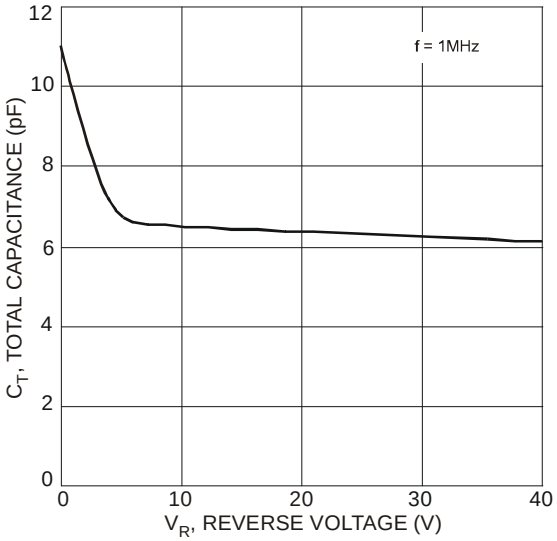


Figure 3 Typical Total Capacitance

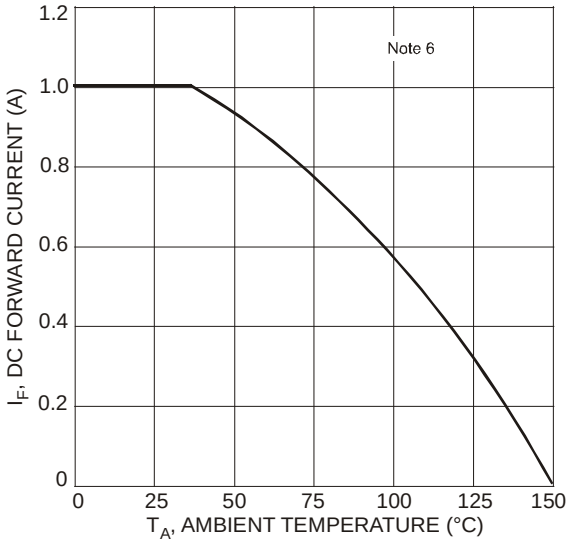
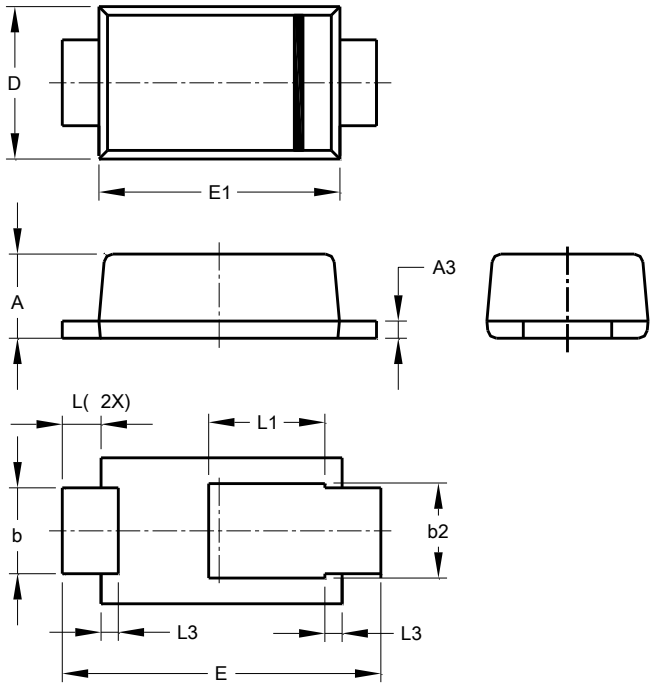


Figure 4 DC Forward Current Derating

Package Outline Dimensions

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

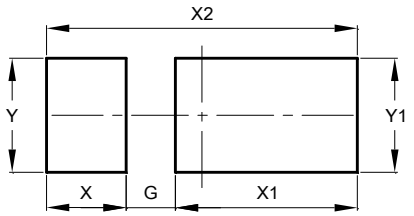


POWERDI®123			
Dim	**Min**	**Max**	**Typ**
A	0.93	1.00	0.98
A3	0.15	0.25	0.20
b	0.85	1.25	1.00
b2	1.025	1.125	1.10
D	1.63	1.93	1.78
E	3.50	3.90	3.70
E1	2.60	3.00	2.80
L	0.40	0.50	0.45
L1	1.25	1.40	1.35
L3	0.125	0.275	0.20
All Dimensions in mm			

Suggested Pad Layout

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

POWERDI®123



Dimensions	Value (in mm)
G	0.65
X	1.05
X1	2.40
X2	4.10
Y	1.50
Y1	1.50