



**Maximum Ratings** (@T<sub>A</sub> = +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	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	70	V
Average Rectified Output Current	I <sub>O</sub>	3	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	90	A

**Thermal Characteristics**

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point	R <sub>θJS</sub>	—	6.0	°C/W
Thermal Resistance Junction to Ambient Air (Note 5) T <sub>A</sub> = +25°C	R <sub>θJA</sub>	95	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 6) T <sub>A</sub> = +25°C	R <sub>θJA</sub>	70	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 7) T <sub>A</sub> = +25°C	R <sub>θJA</sub>	50	—	°C/W
Operating Temperature Range	T <sub>J</sub>	-65 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175		°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 8)	V <sub>(BR)R</sub>	100	—	—	V	I <sub>R</sub> = 0.2mA
Forward Voltage	V <sub>F</sub>	—	0.71	0.76	V	I <sub>F</sub> = 3A, T <sub>J</sub> = +25°C
		—	0.61	0.65		I <sub>F</sub> = 3A, T <sub>J</sub> = +100°C
		—	0.57	0.61		I <sub>F</sub> = 3A, T <sub>J</sub> = +125°C
		—	0.78	0.84		I <sub>F</sub> = 6A, T <sub>J</sub> = +25°C
		—	0.68	0.75		I <sub>F</sub> = 6A, T <sub>J</sub> = +100°C
		—	0.64	0.68		I <sub>F</sub> = 6A, T <sub>J</sub> = +125°C
Reverse Current (Note 8)	I <sub>R</sub>	—	2	100	μA	T <sub>J</sub> = +25°C, V <sub>R</sub> = 100V
		—	0.4	5	mA	T <sub>J</sub> = +100°C, V <sub>R</sub> = 100V
		—	2	20	mA	T <sub>J</sub> = +125°C, V <sub>R</sub> = 100V

- Notes:
- FR-4 PCB, 2oz. Copper, minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>.
  - Polymide PCB, 2oz. Copper, minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>.
  - Polymide PCB, 2oz. Copper. Cathode pad dimensions 9.4mm x 7.2mm. Anode pad dimensions 2.7mm x 1.6mm.
  - Short duration pulse test used to minimize self-heating effect.

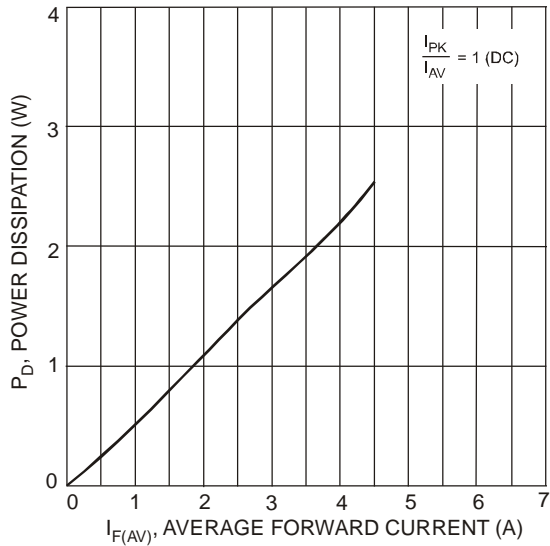


Fig. 1 Forward Power Dissipation

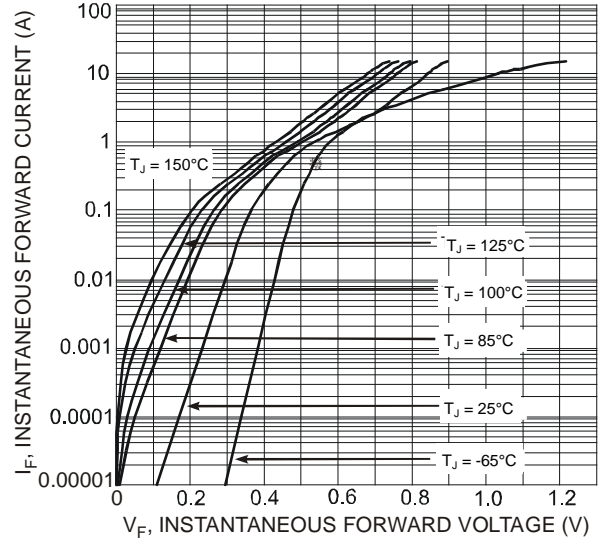


Fig. 2 Typical Forward Characteristics

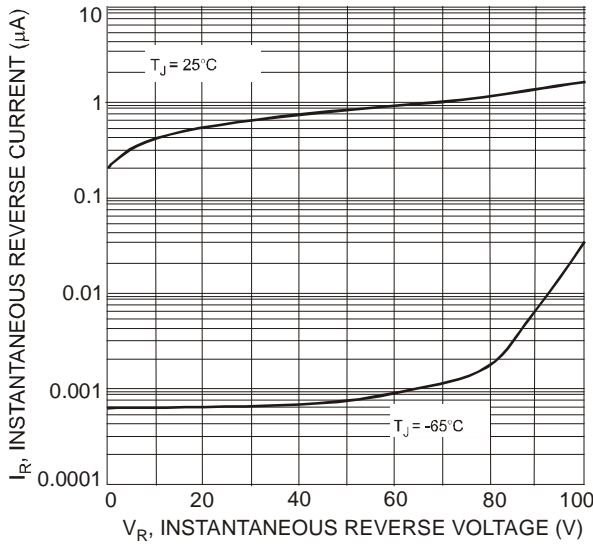


Fig. 3 Typical Reverse Characteristics

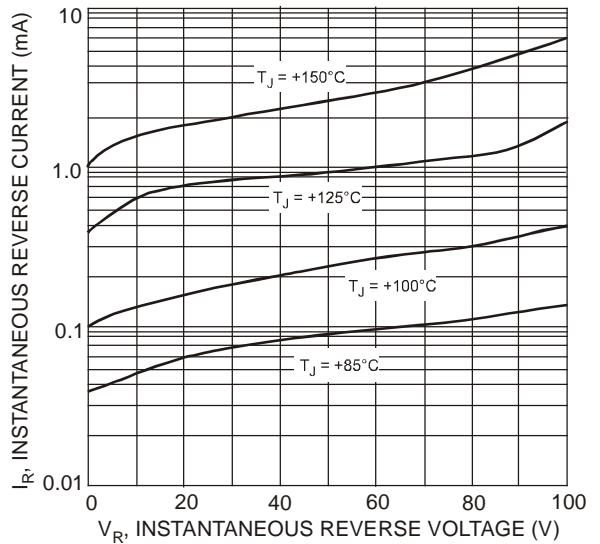


Fig. 4 Typical Reverse Characteristics

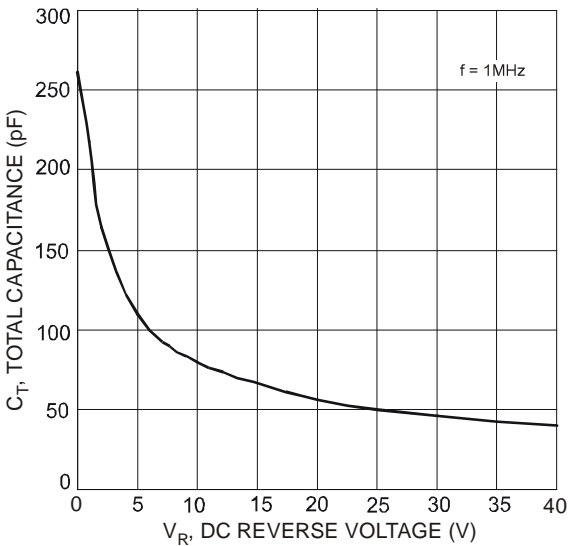


Fig. 5 Total Capacitance vs. Reverse Voltage

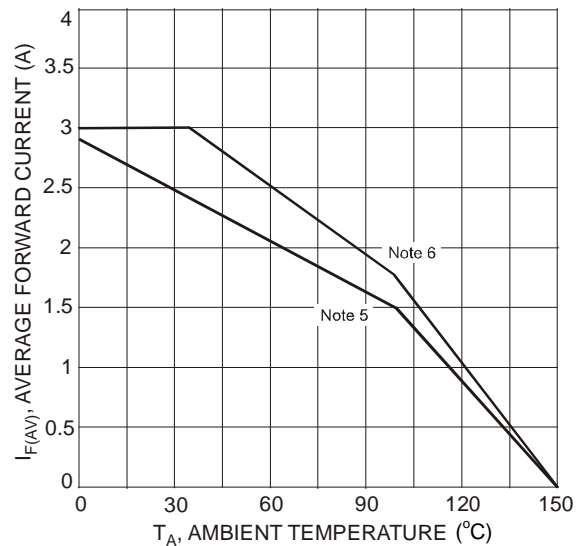


Fig. 6 Forward Current Derating Curve

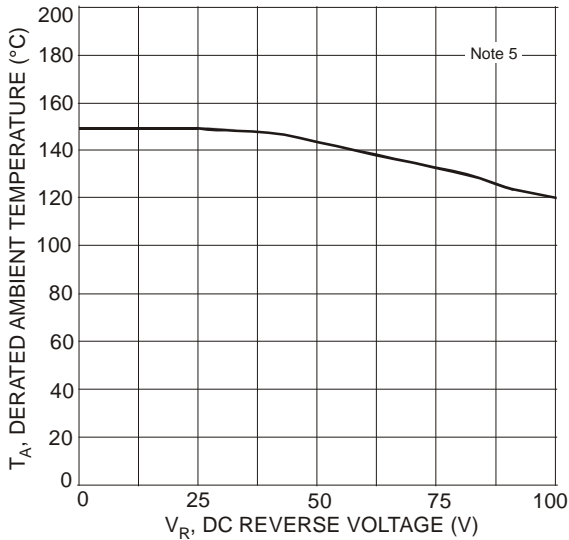
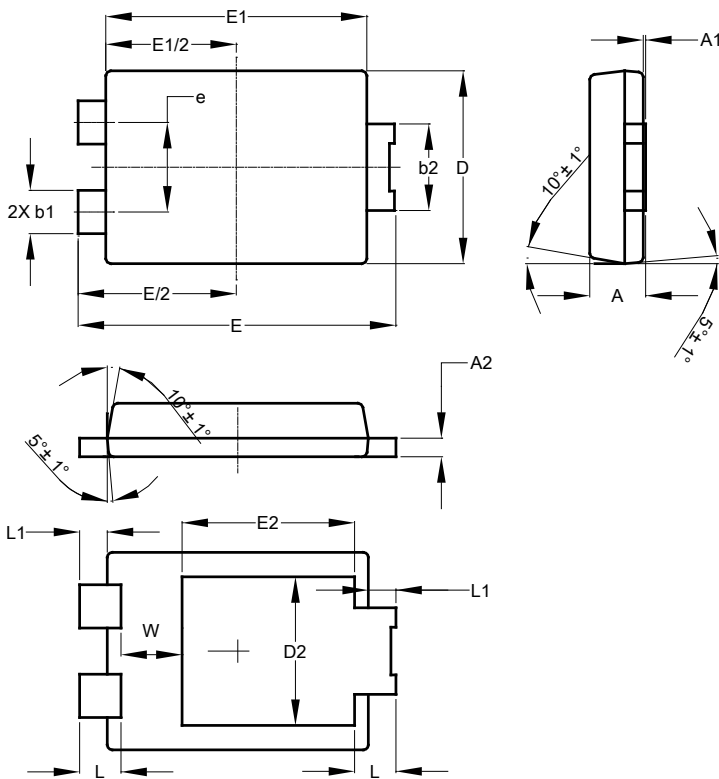


Fig. 7 Operating Temperature Derating

### Package Outline Dimensions

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

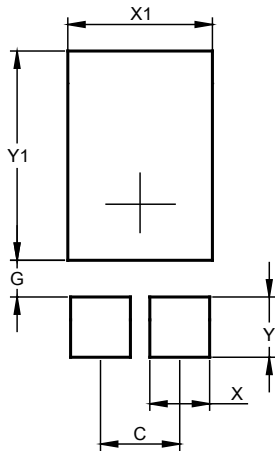


PowerDI5			
Dim	Min	Max	Typ
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.504
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255

All Dimensions in mm

## Suggested Pad Layout

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



Dimensions	Value (in mm)
C	1.840
G	0.852
X	1.390
X1	3.360
Y	1.400
Y1	4.860

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