

## 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 Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>RM</sub>	45	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	32	V
Average Rectified Output Current	I <sub>O</sub>	10	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	275	A
Repetitive Peak Avalanche Power (1μs, +25°C)	P <sub>ARM</sub>	30,000	W

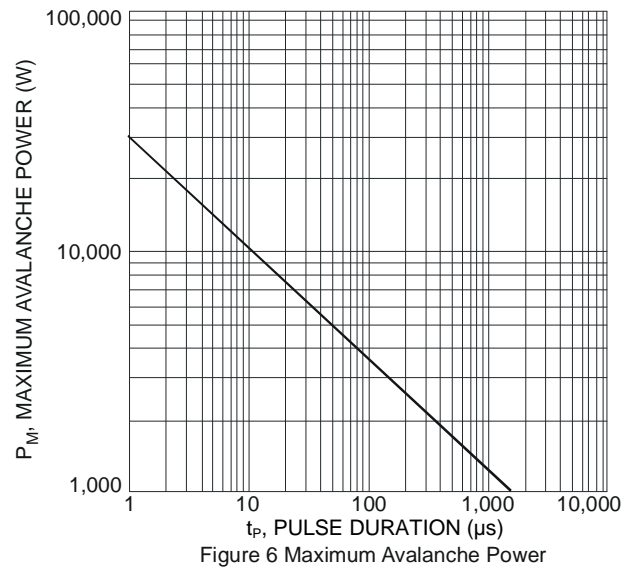
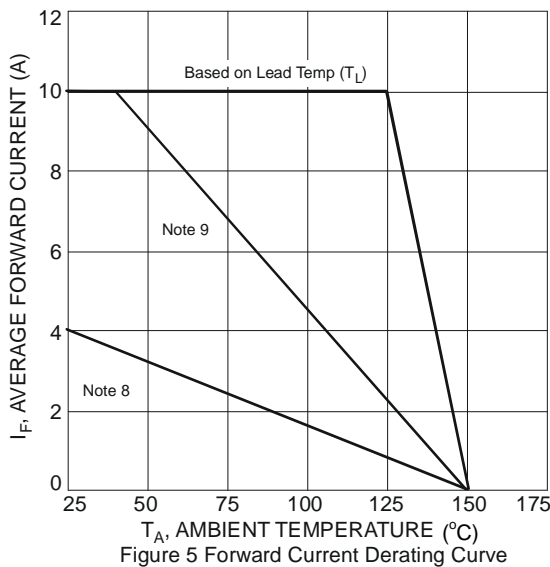
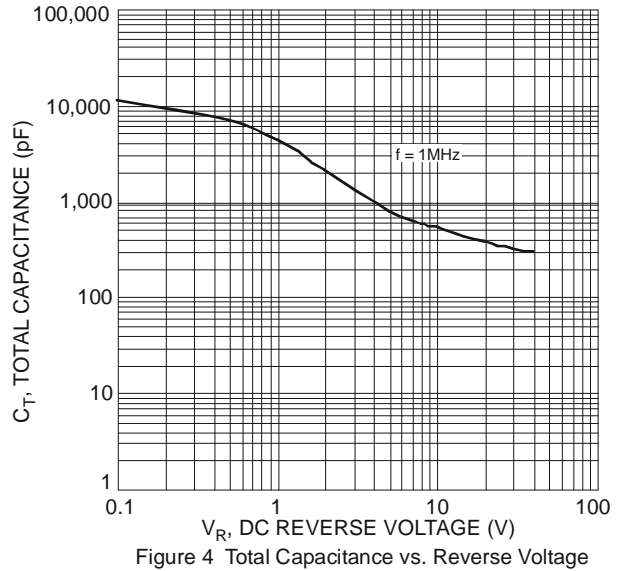
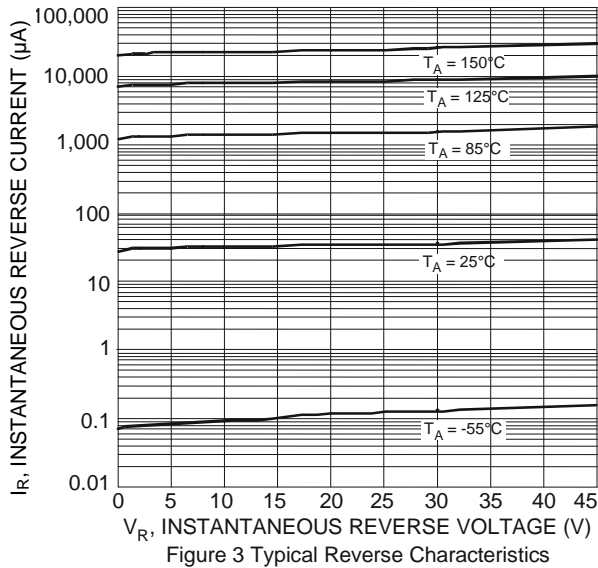
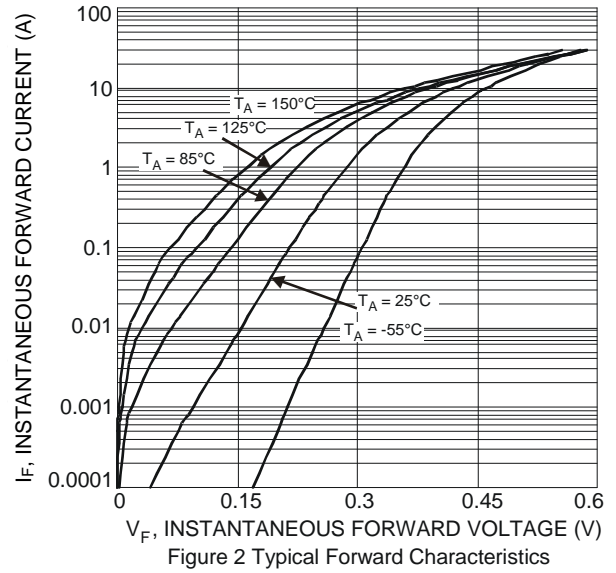
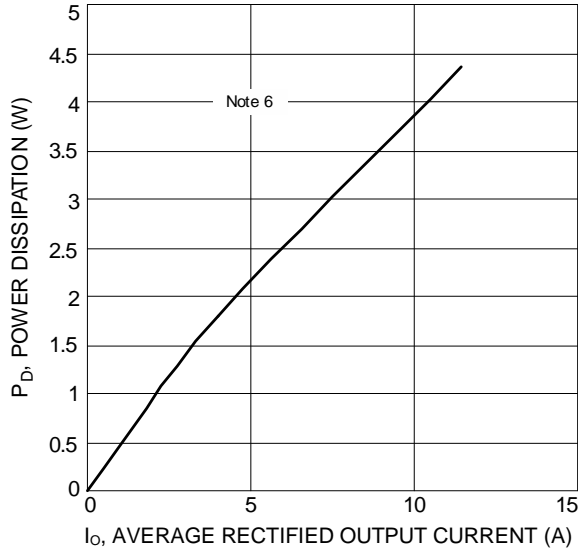
## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Thermal Resistance Junction to Ambient (Note 5)	R <sub>θJA</sub>	73	°C/W
Thermal Resistance Junction to Ambient (Note 6)	R <sub>θJA</sub>	31	°C/W
Operating Temperature Range	V <sub>R</sub> ≤ 80% V <sub>RRM</sub>	-65 to +150	°C
	V <sub>R</sub> ≤ 50% V <sub>RRM</sub>	≤180	
	DC Forward Mode	≤200	
Storage Temperature Range	T <sub>STG</sub>	-65 to +175	°C

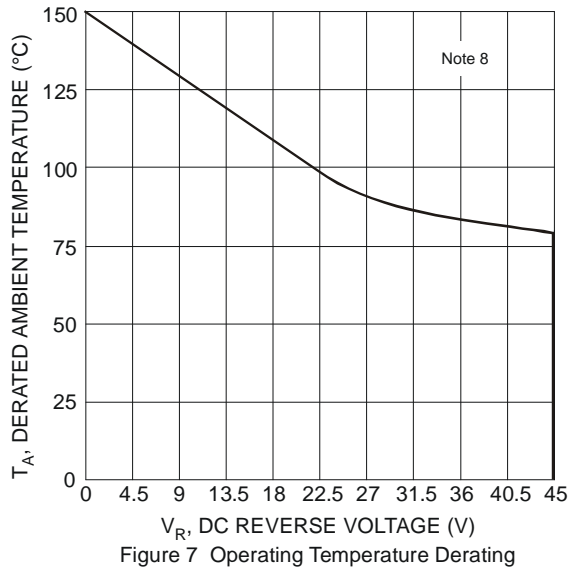
## Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 7)	V <sub>(BR)R</sub>	45	—	—	V	I <sub>R</sub> = 0.3mA
Forward Voltage Drop	V <sub>F</sub>	—	—	0.42	V	I <sub>F</sub> = 8A, T <sub>J</sub> = +25°C
		—	0.42	0.47		I <sub>F</sub> = 10A, T <sub>J</sub> = +25°C
		—	0.38	0.41		I <sub>F</sub> = 10A, T <sub>J</sub> = +125°C
Leakage Current (Note 7)	I <sub>R</sub>	—	0.05	0.3	mA	V <sub>R</sub> = 45V, T <sub>J</sub> = +25°C
		—	—	15		V <sub>R</sub> = 45V, T <sub>J</sub> = +100°C
		—	28.0	75		V <sub>R</sub> = 45V, T <sub>J</sub> = +150°C

Notes: 5. FR-4 PCB, 2oz. Copper. Minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>.  
6. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.  
7. Short duration pulse test used to minimize self-heating effect.

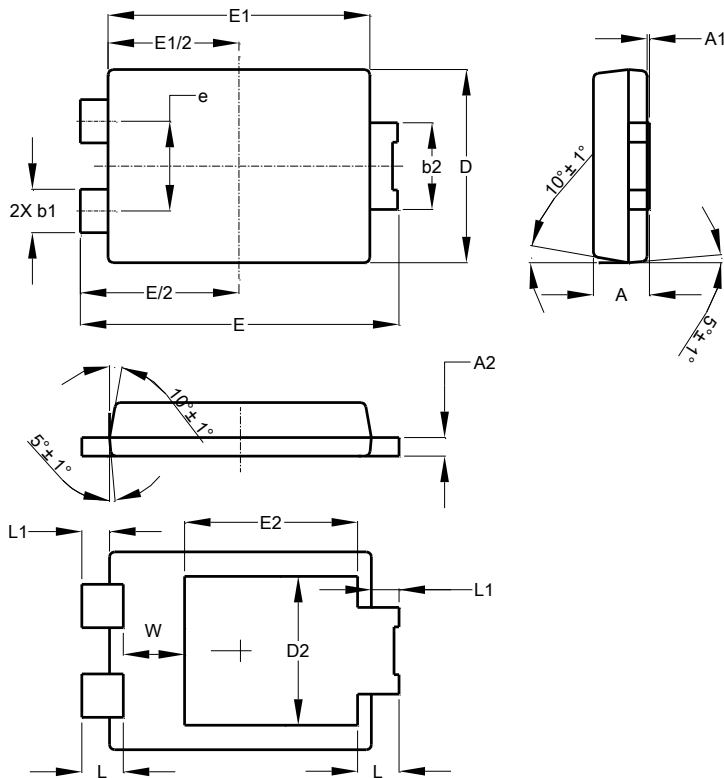


Notes: 8. Device mounted on FR-4 substrate, 2oz copper, with minimum recommended pad layout.  
9. Device mounted on FR-4 substrate, 2oz copper, with 10cm x 10cm pad layout.



## Package Outline Dimensions

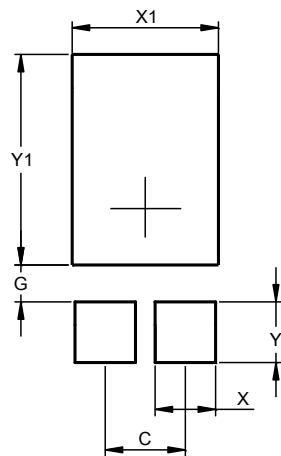
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



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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