

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 _R	150	V
RMS Reverse Voltage	V _{R(RMS)}	106	V
Average Rectified Output Current (See also Figure 5)	I _O	4	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	180	A

Thermal Characteristics

Characteristic	Symbol	Typ	Max	Unit
Thermal Resistance Junction to Soldering Point	R _{θJS}	—	2.0	°C/W
Thermal Resistance Junction to Ambient Air (Note 6) T _A = +25°C	R _{θJA}	90	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 7) T _A = +25°C	R _{θJA}	60	—	°C/W
Thermal Resistance Junction to Ambient Air (Note 8) T _A = +25°C	R _{θJA}	40	—	°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 9)	V _{(BR)R}	150	—	—	V	I _R = 10μA
Forward Voltage	V _F	—	0.71	0.76	V	I _F = 4A, T _J = +25°C
		—	0.57	0.64		I _F = 4A, T _J = +125°C
		—	0.77	0.81		I _F = 8A, T _J = +25°C
		—	0.63	0.70		I _F = 8A, T _J = +125°C
Reverse Leakage Current (Note 9)	I _R	—	0.3	10	μA	T _J = +25°C, V _R = 150V
		—	0.35	0.8	mA	T _J = +125°C, V _R = 100V
		—	0.4	4.5	mA	T _J = +125°C, V _R = 150V

Notes: 6. FR-4 PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>.
 7. Polyimide PCB, 2 oz. Copper, minimum recommended pad layout per <http://www.diodes.com/package-outlines.html>.
 8. Polyimide PCB, 2 oz. Copper. Cathode pad dimensions 9.4mm x 7.2mm. Anode pad dimensions 2.7mm x 1.6mm.
 9. Short duration pulse test used to minimize self-heating effect.

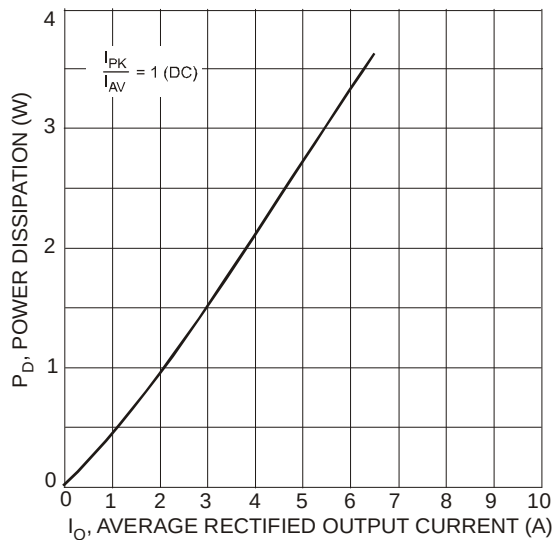


Fig. 1 Forward Power Dissipation

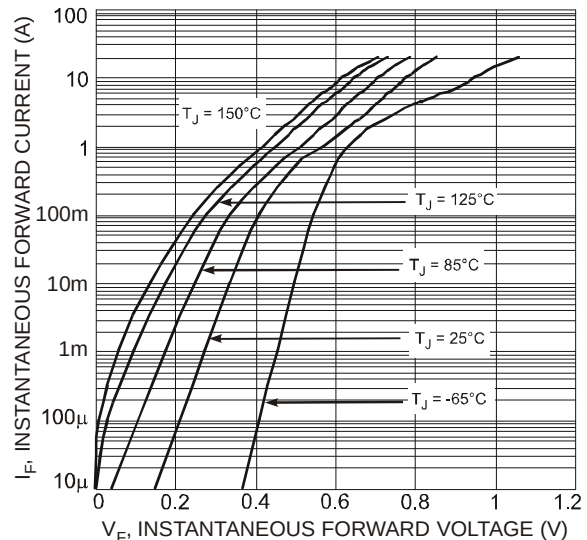


Fig. 2 Typical Forward Characteristics

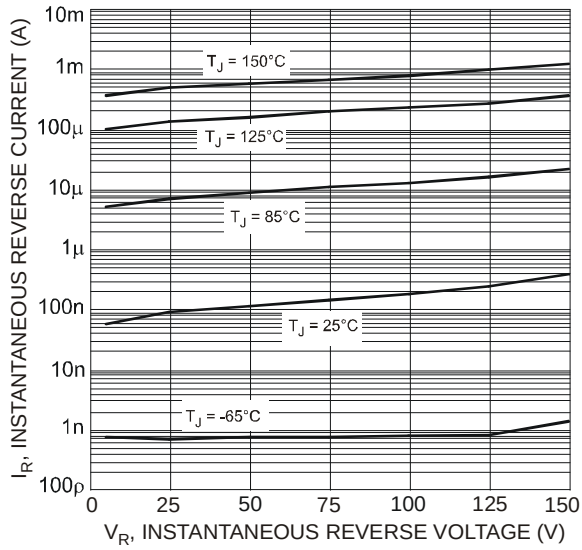


Fig. 3 Typical Reverse Characteristics

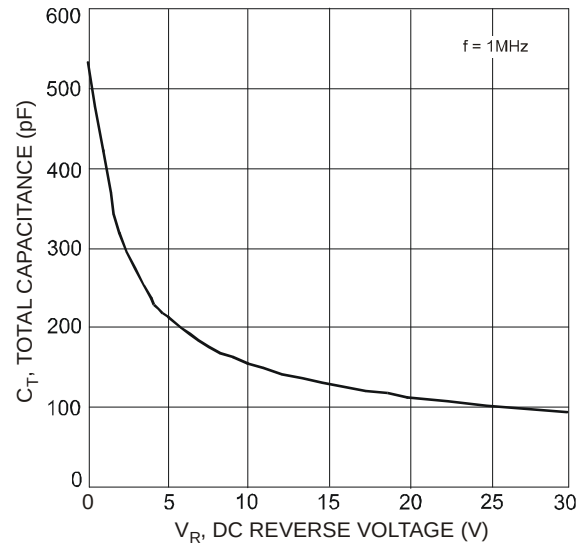


Fig. 4 Total Capacitance vs. Reverse Voltage

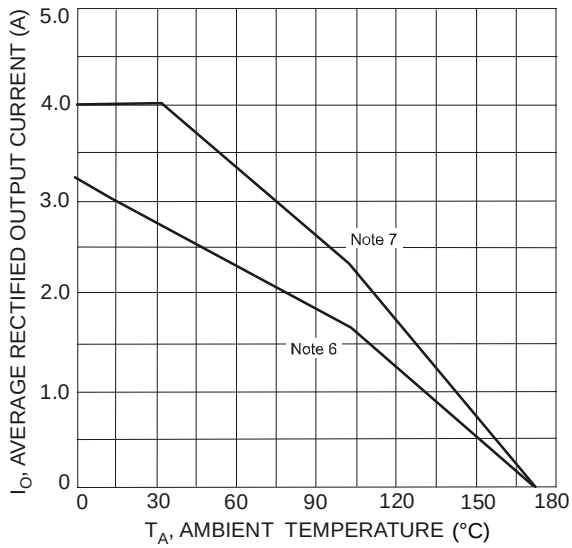


Fig. 5 Forward Current Derating Curve

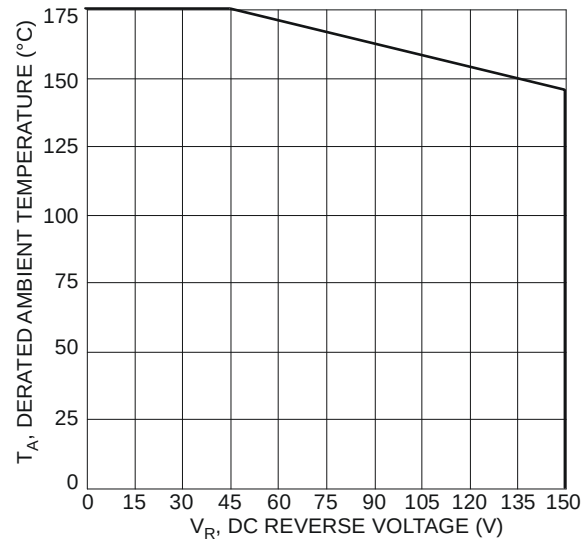
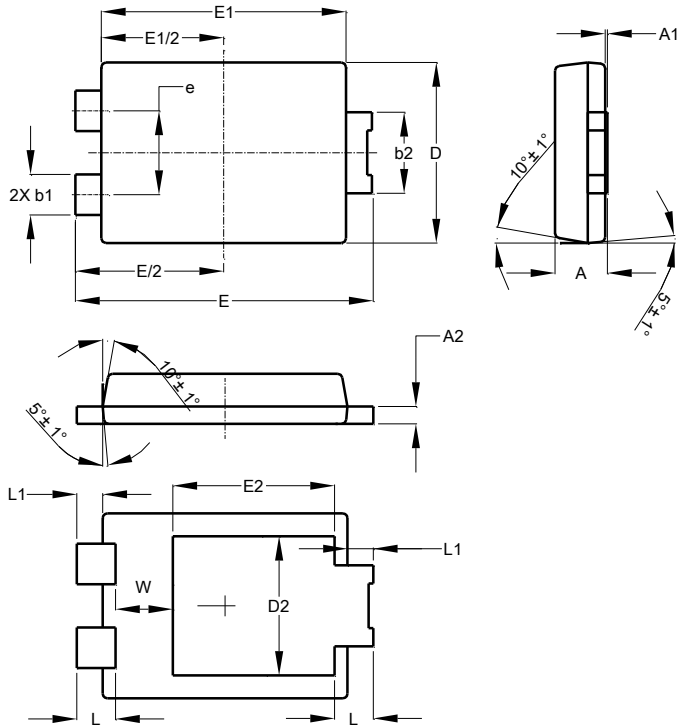


Fig. 6 Operating Temperature Derating

Package Outline Dimensions

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

PowerDI5

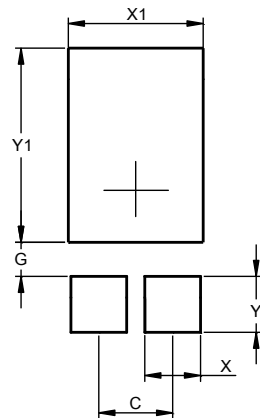


PowerDI5			
Dim	Min	Max	Typ
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.504
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

Suggested Pad Layout

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

PowerDI5



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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