

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM}	100	V
Average Rectified Output Current	I _O	8	A
Non-Repetitive Peak Forward Surge Current 8.3ms	I _{FSM}	160	A
Non-Repetitive Avalanche Energy at I _{AS} = 3.0A, L = 50mH	E _{AS}	210	mJ

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	R _{θJA}	20	°C/W
Typical Thermal Resistance Junction to Case (Note 5)	R _{θJC}	3	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +175	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	—	0.73 0.78 0.58 0.64	— 0.85 — 0.74	V	I _F = 4A, T _J = +25°C I _F = 8A, T _J = +25°C I _F = 4A, T _J = +125°C I _F = 8A, T _J = +125°C
Leakage Current (Note 6)	I _R	—	0.1 0.15	1.5 2.0	μA mA	V _R = 100V, T _J = +25°C V _R = 100V, T _J = +125°C
Junction Capacitance	C _J	—	168	—	pF	V _R = 4V, T _J = +25°C

Notes: 5. 2-inch sq. Al board.
6. Short duration pulse test used to minimize self-heating effect.

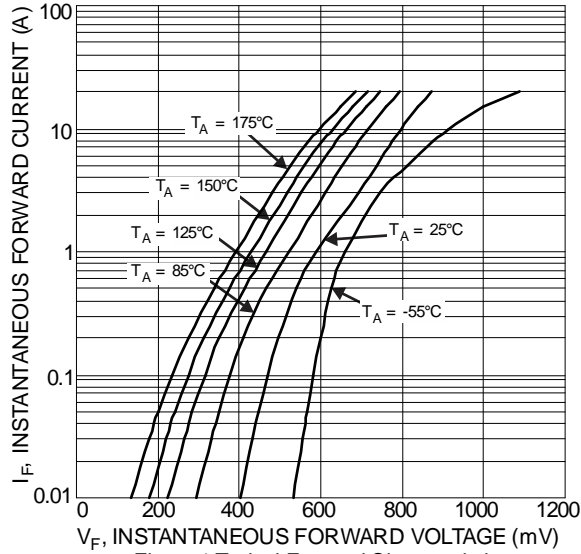


Figure 1 Typical Forward Characteristics

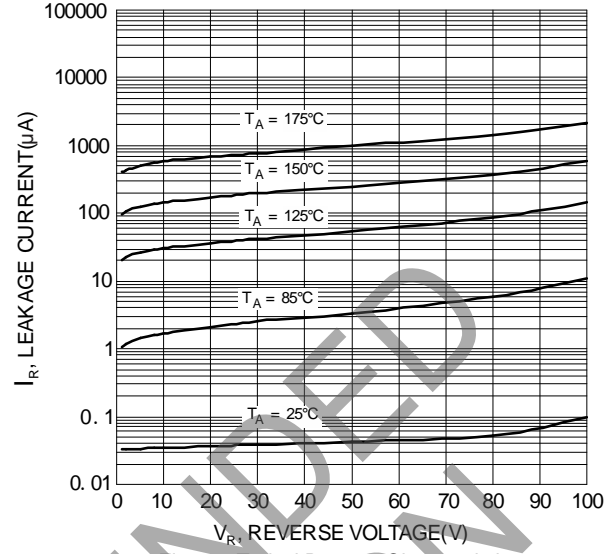


Figure 2 Typical Reverse Characteristics

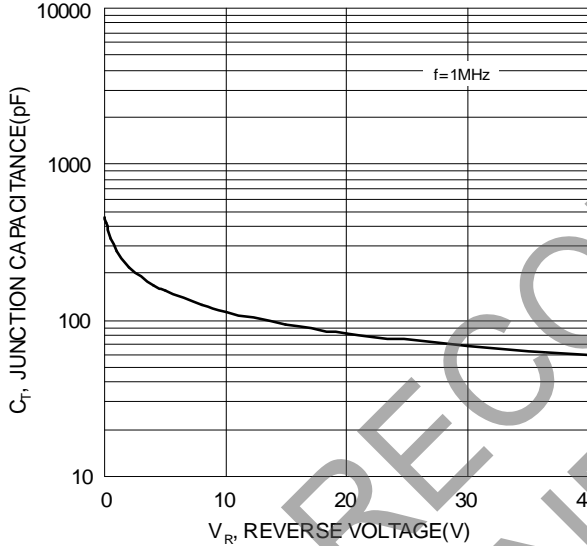


Figure 3 Typical Junction Capacitance

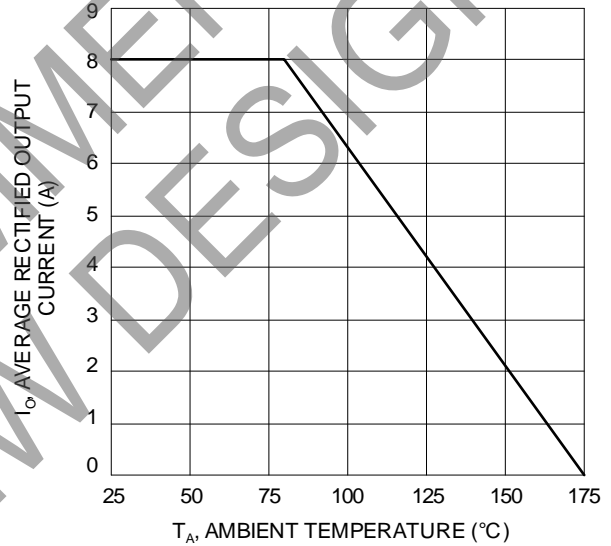


Figure 4 DC Forward Current Derating

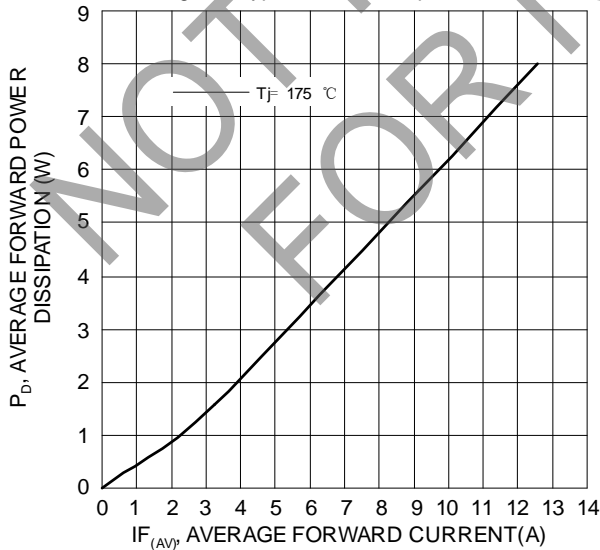
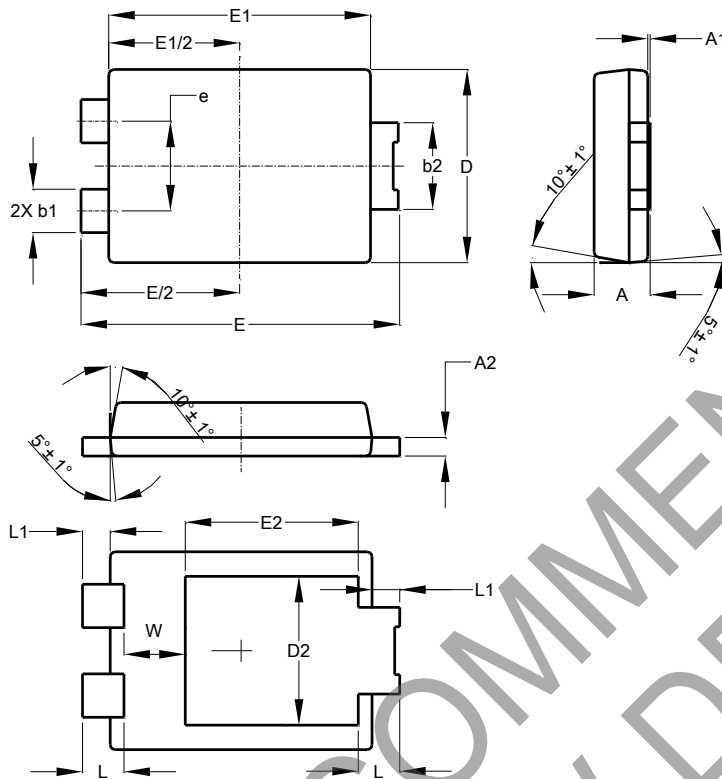


Figure 5 Forward Power Dissipation

Package Outline Dimensions

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

PowerDI5

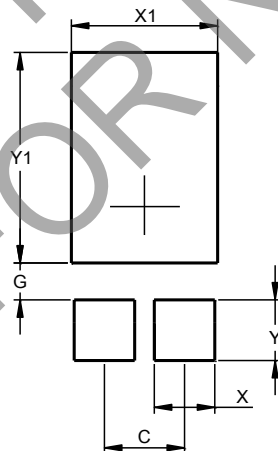


PowerDI5			
Dim	Min	Max	Typ
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.504
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

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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