

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}	50	V
Average Rectified Output Current	I _O	15	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	290	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	18	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	R _{θJC}	2	°C/W
Typical Thermal Resistance Junction to Lead (Notes 6, 7)	R _{θJL}	4	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	—	0.42	0.50	V	I _F = 10A, T _J = +25°C
		—	0.37	0.44		I _F = 10A, T _J = +125°C
		—	0.47	0.54		I _F = 15A, T _J = +25°C
		—	0.43	0.50		I _F = 15A, T _J = +125°C
Leakage Current (Note 8)	I _R	—	0.1	0.15	mA	V _R = 50V, T _J = +25°C
		—	16	45		V _R = 50V, T _J = +125°C
Junction Capacitance	C _J	—	440	—	pF	V _R = 25V, T _J = +25°C

- Notes:
- Device mounted on FR4 PCB with 1inch copper pad layout with AL substrate and additional HK1(37mm x 55mm x15mm).
 - Junction to Lead (Cathode Terminal)
 - Short duration pulse test used to minimize self-heating effect.

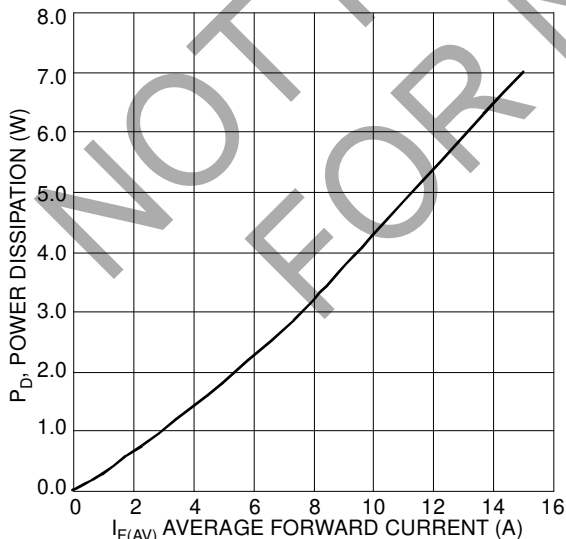


Figure 1 Forward Power Dissipation

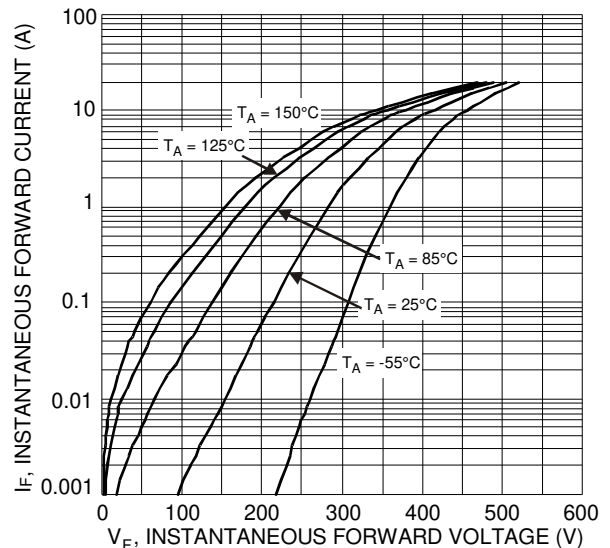
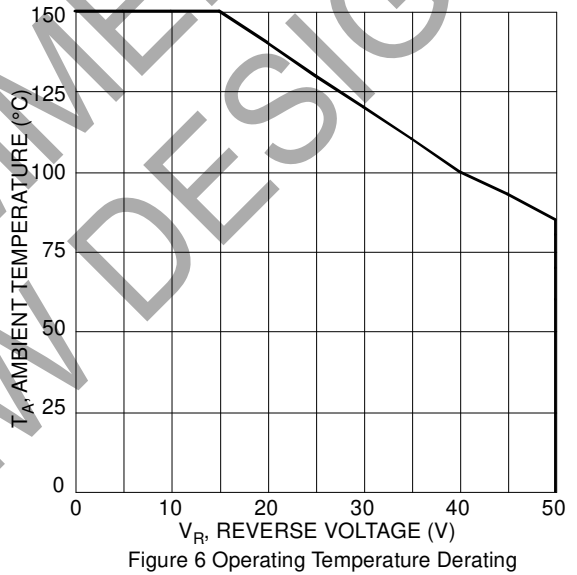
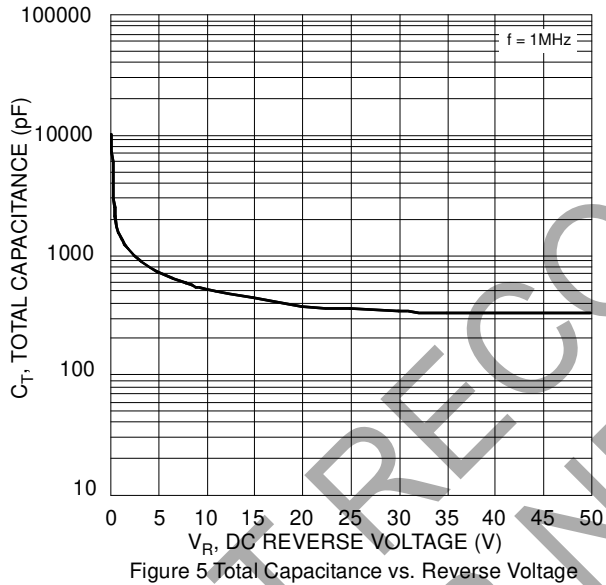
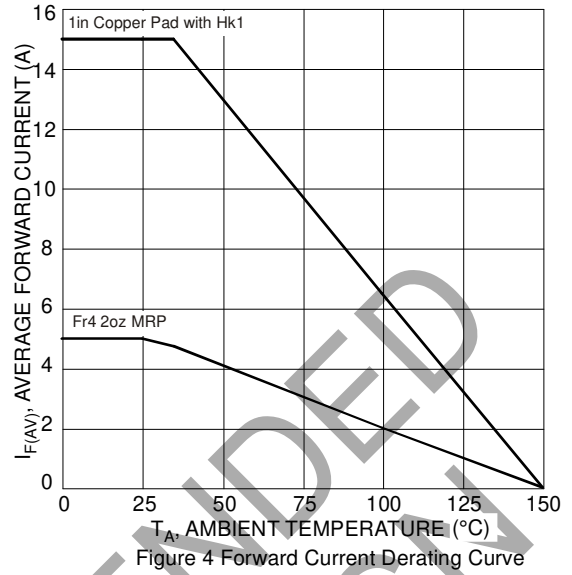
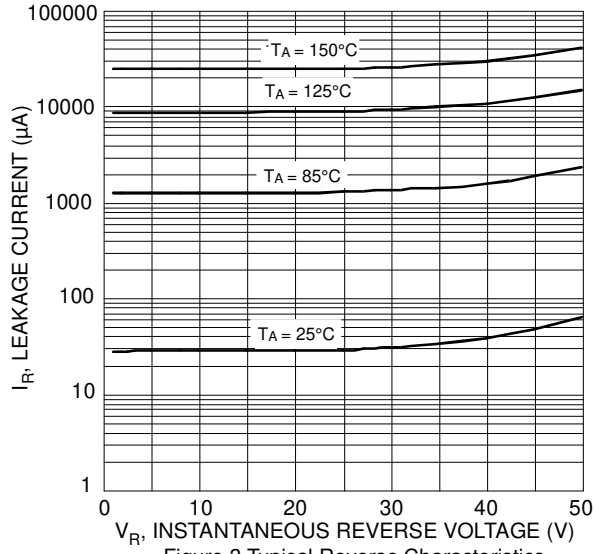


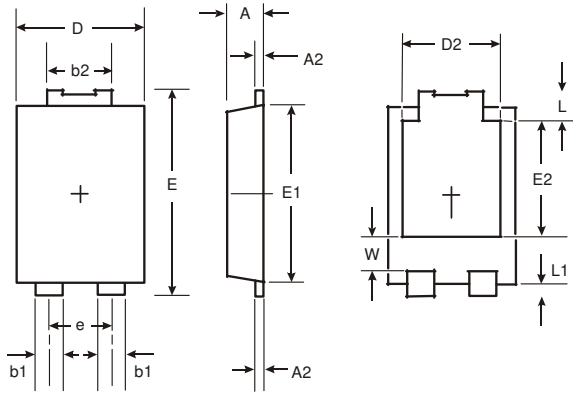
Figure 2 Typical Forward Characteristics



Package Outline Dimensions

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

PowerDI5

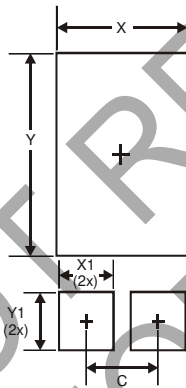


PowerDI5		
Dim	Min	Max
A	1.05	1.15
A2	0.33	0.43
b1	0.80	0.99
b2	1.70	1.88
D	3.90	4.05
D2	3.054 Typ	
E	6.40	6.60
e	1.84 Typ	
E1	5.30	5.45
E2	3.549 Typ	
L	0.75	0.95
L1	0.50	0.65
W	1.10	1.41
All Dimensions in mm		

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	3.360
X1	1.390
Y	4.860
Y1	1.400

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