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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}	60	V
Average Rectified Output Current	I_O	5	A
Non-Repetitive Peak Forward Surge Current 8.3mS	I_{FSM}	170	A

Parameter	Symbol	Value	Unit
Human Body Model ESD Protection	ESD HBM	8	kV
Machine Model ESD Protection	ESD MM	400	V

Caution: Stresses greater than the 'Absolute Maximum Ratings' specified above, may cause permanent damage to the device. These are stress ratings only; functional operation of the device at these or any other conditions exceeding those indicated in this specification is not implied. Device reliability may be affected by exposure to absolute maximum rating conditions for extended periods of time..
Semiconductor devices are ESD sensitive and may be damaged by exposure to ESD events. Suitable ESD precautions should be taken when handling and transporting these devices.

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	22	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	$R_{\theta JC}$	3	°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	— — — —	0.33 0.45 0.24 —	— 0.52 — 0.5	V	I_F = 1A, T_A = +25°C I_F = 5A, T_A = +25°C I_F = 1A, T_A = +125°C I_F = 5A, T_A = +125°C
Leakage Current (Note 7)	I_R	— —	——	0.22 50	mA	V_R = 60V , T_A = +25°C V_R = 60V , T_A = +125°C

Notes: 6. Device mounted on 2inch*2inch Al board.
7. Short duration pulse test used to minimize self-heating effect.

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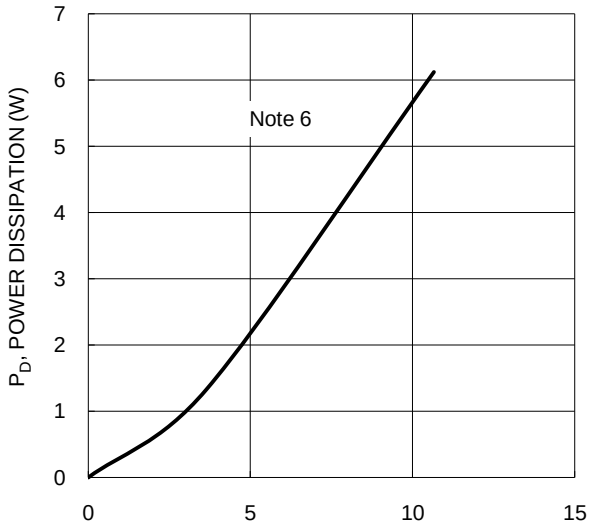

Figure 1. Forward Power Dissipation

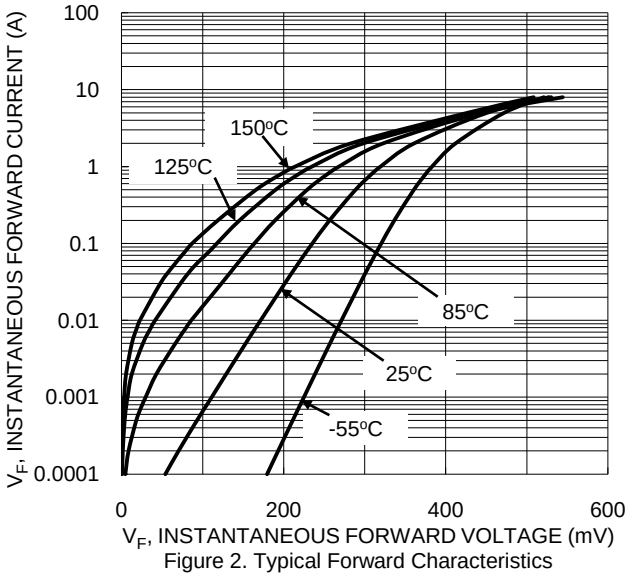

Figure 2. Typical Forward Characteristics

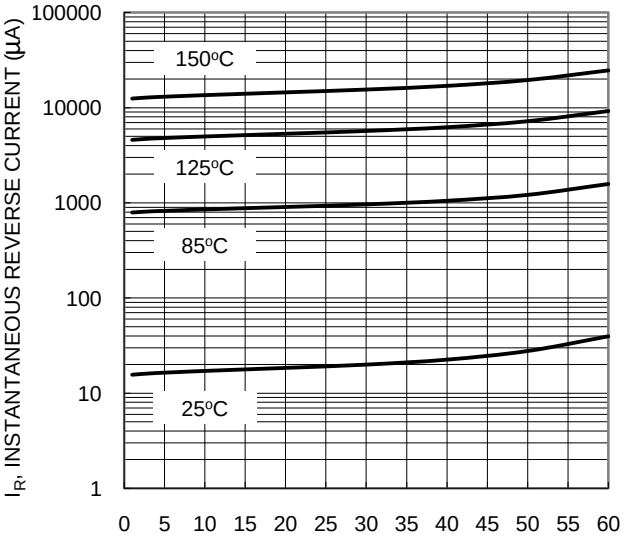

Figure 3. Typical Reverse Characteristics

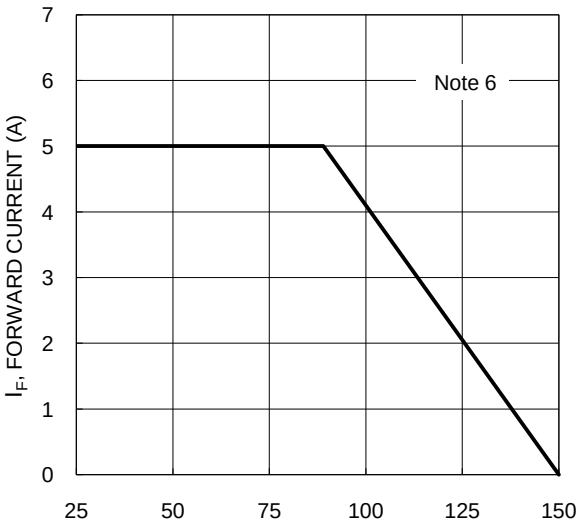

Figure 4. Forward Current Derating Curve

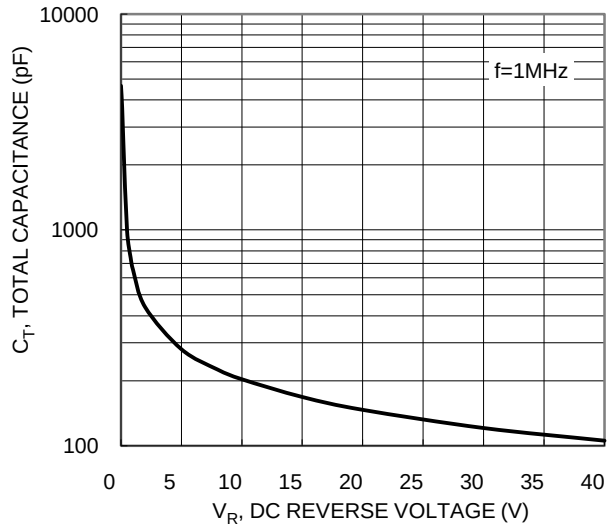

Figure 5. Total Capacitance vs. Reverse Voltage

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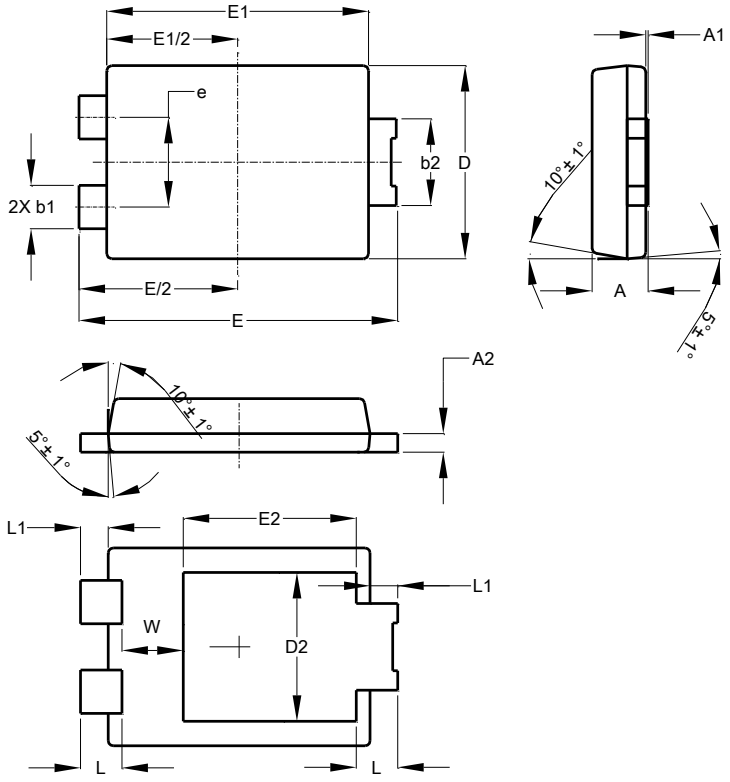
Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.

POWERDI®5

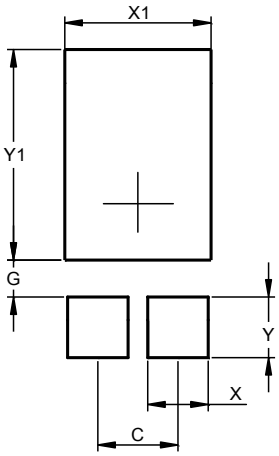


	POWERDI®5		
Dim	**Min**	**Max**	**Typ**
A	1.05	1.15	1.10
A1	0.00	0.05	—
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	—	—	3.054
E	6.40	6.60	6.504
e	—	—	1.84
E1	5.30	5.45	5.37
E2	—	—	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.

POWERDI®5



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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