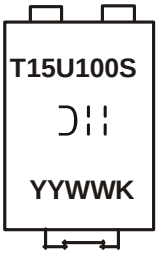
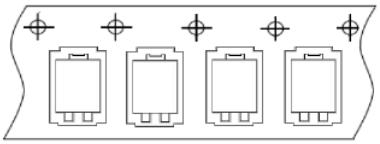
Marking Information

PowerDI5



T15U100S = Product Type Marking Code
= Manufacturer's Code Marking
YYWW = Date Code Marking
YY = Last Two Digits of Year (ex: 17 = 2017)
WW = Week Code (01 to 53)
K = Factory Designator



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	15	A
Non-Repetitive Peak Forward Surge Current 8.3mS	I_{FSM}	250	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	$R_{\theta JA}$	15	°C/W
Typical Thermal Resistance Junction to Case (Note 6)	$R_{\theta JC}$	1	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 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	— — — —	0.44 0.59 0.64 0.56	— 0.65 0.70 0.64	V	I_F = 5A, T_J = +25°C I_F = 12A, T_J = +25°C I_F = 15A, T_J = +25°C I_F = 15A, T_J = +125°C
Leakage Current (Note 7)	I_R	— —	40 —	200 30	μA mA	V_R = 100V , T_J = +25°C V_R = 100V , T_J = +125°C

Notes: 6. Device with additional heatsink, (copper pad on aluminum substrate 30mm*30mm + Aluminum heatsink 50mm*50mm*22mm).
7. Short duration pulse test used to minimize self-heating effect.

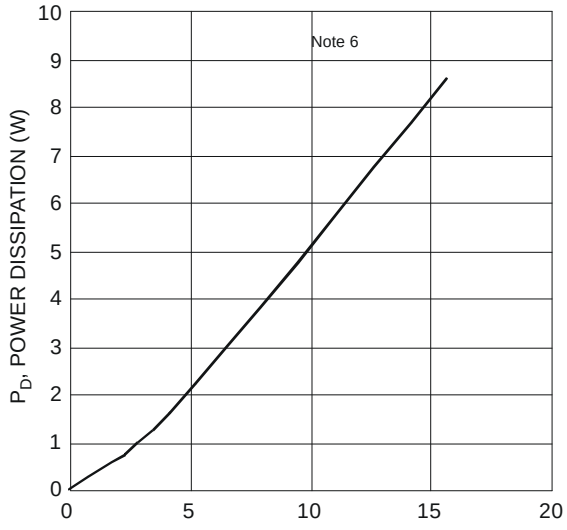


Figure 1 Forward Power Dissipation

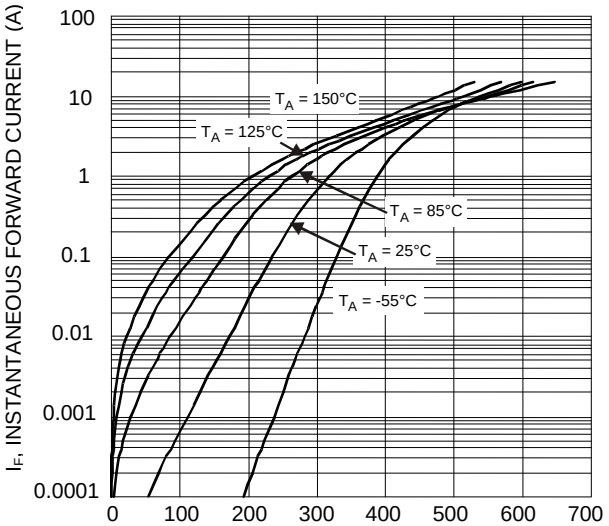


Figure 2 Typical Forward Characteristics

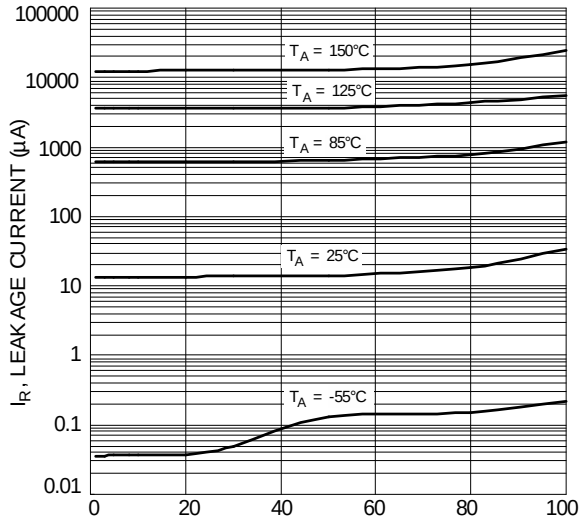


Figure 3 Typical Reverse Characteristics

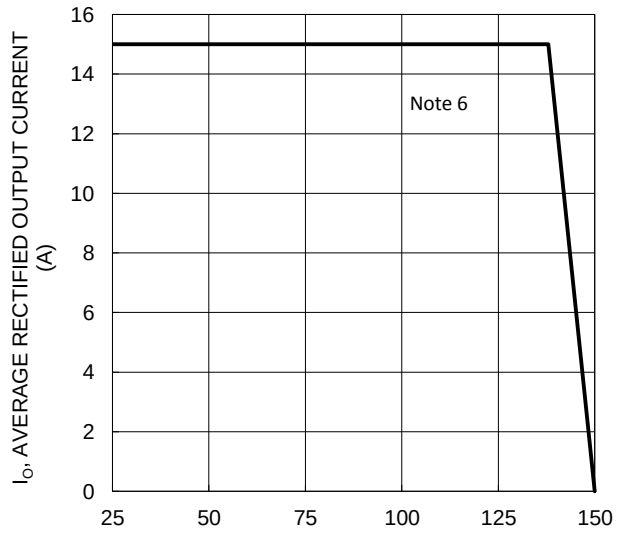


Figure 4. DC Forward Current Derating

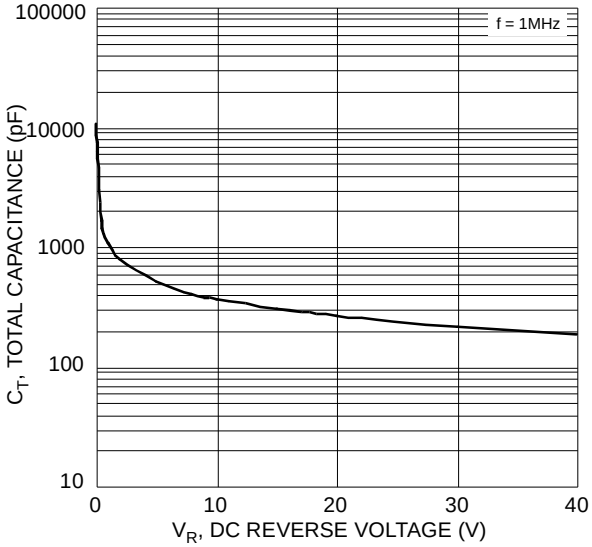


Figure 5 Typical Junction Capacitance

Package Outline Dimensions

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

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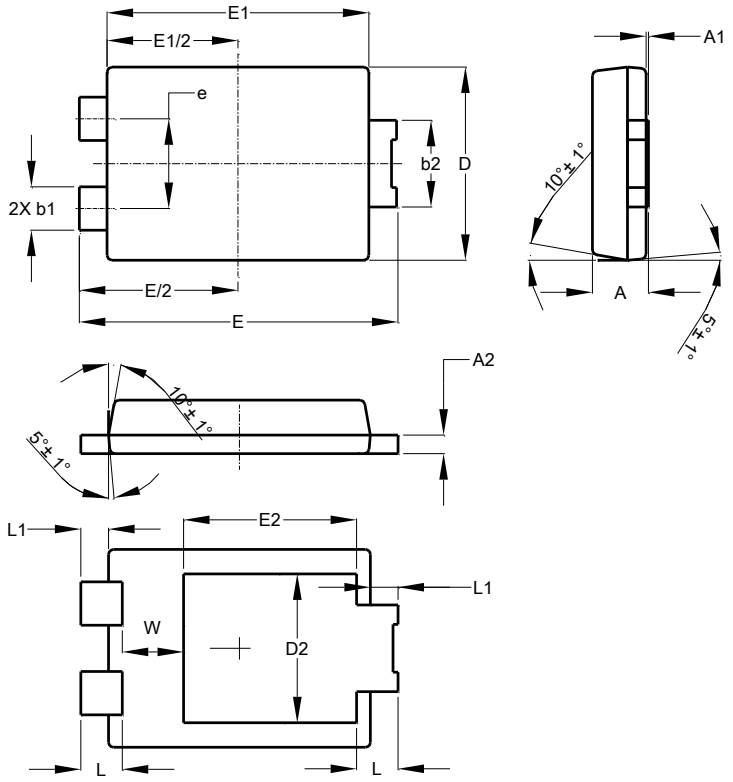

PowerDI5			
Dim	**Min**	**Max**	**Typ**
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.504
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

Suggested Pad Layout

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

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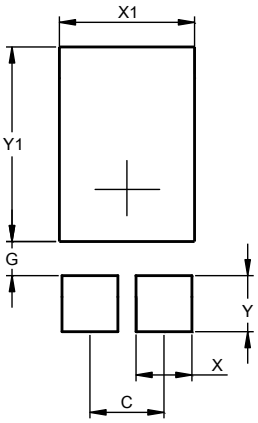

Dimensions	Value (in mm)
C	1.840
G	0.852
X	1.390
X1	3.360
Y	1.400
Y1	4.860

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