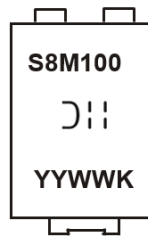



Marking Information



S8M100 = Product Type Marking Code
 = Manufacturers' Code Marking
 YYWW = Date Code Marking
 YY = Last Two Digits of Year (ex: 21 = 2021)
 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	8	A
Non-Repetitive Peak Forward Surge Current 8.3ms	I _{FSM}	160	A
Non-Repetitive Avalanche Energy at I _{AS} = 5.0A, L = 50mH	E _{AS}	350	mJ

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	25	°C/W
Typical Thermal Resistance Junction to Ambient (Note 7)	R _{θJA}	90	°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	—	0.72	—	V	I _F = 4A, T _J = +25°C
		—	0.78	0.88		I _F = 8A, T _J = +25°C
		—	0.59	—		I _F = 4A, T _J = +125°C
		—	0.65	0.74		I _F = 8A, T _J = +125°C
Leakage Current (Note 8)	I _R	—	0.08	2.0	μA	V _R = 100V, T _J = +25°C
		—	5	100		V _R = 100V, T _J = +125°C
Junction Capacitance	C _J	—	245	—	pF	V _R = 4V, T _J = +25°C

Notes: 6. 2inch sq. Al board.
 7. MRP FR-4 PC board, 2oz.
 8. Short duration pulse test used to minimize self-heating effect.

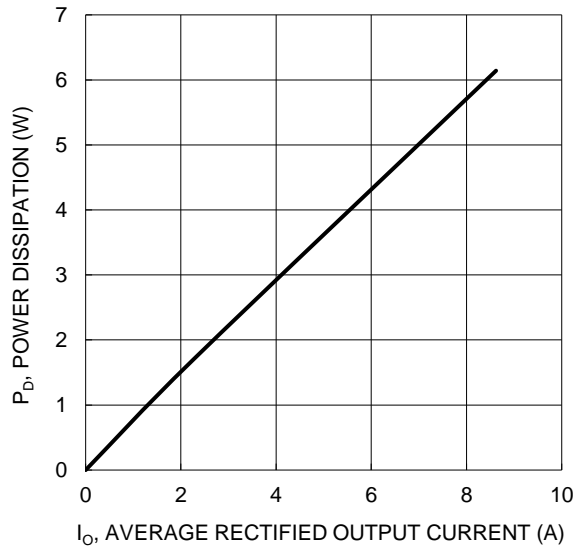


Figure 1. Forward Power Dissipation

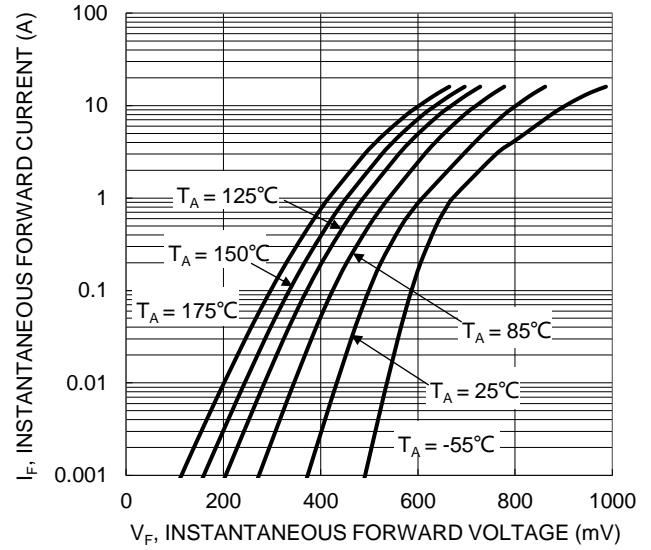


Figure 2. Typical Forward Characteristics

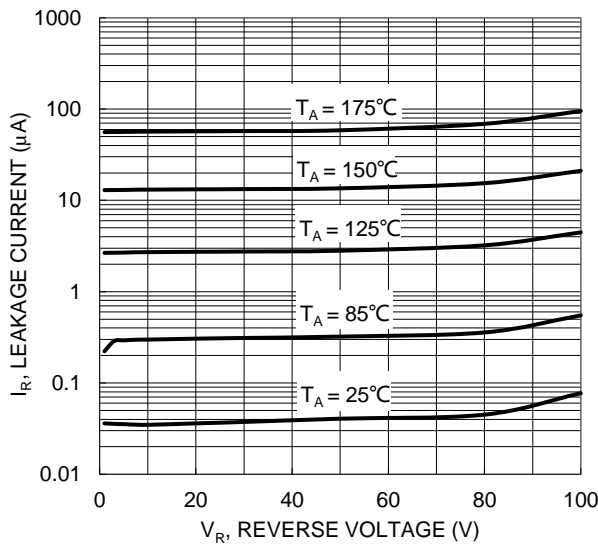


Figure 3. Typical Reverse Characteristics

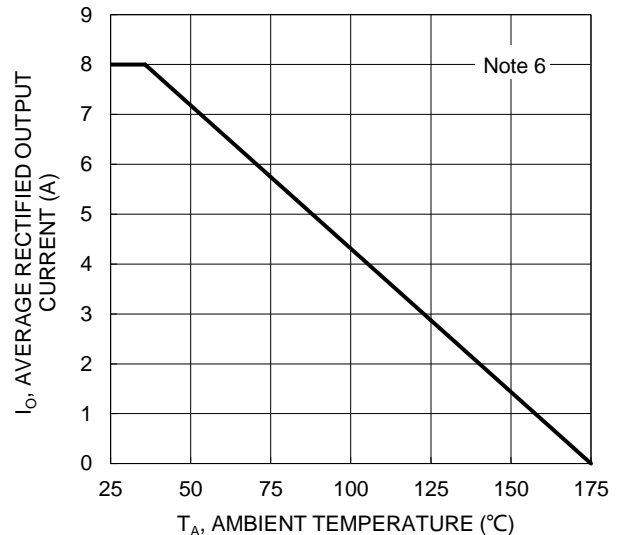


Figure 4. Forward Current Derating Curve

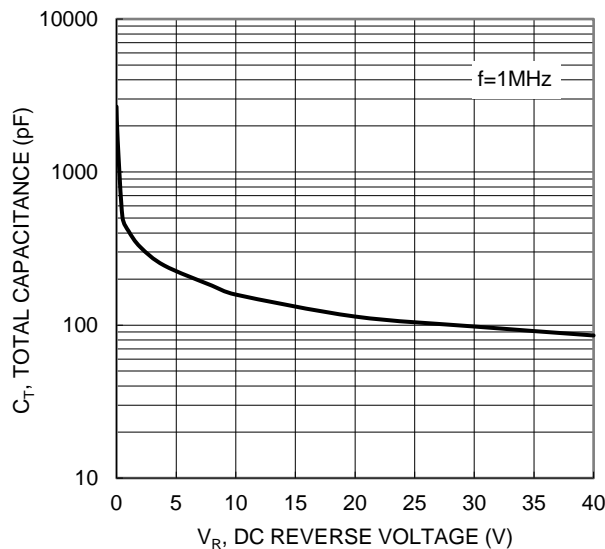
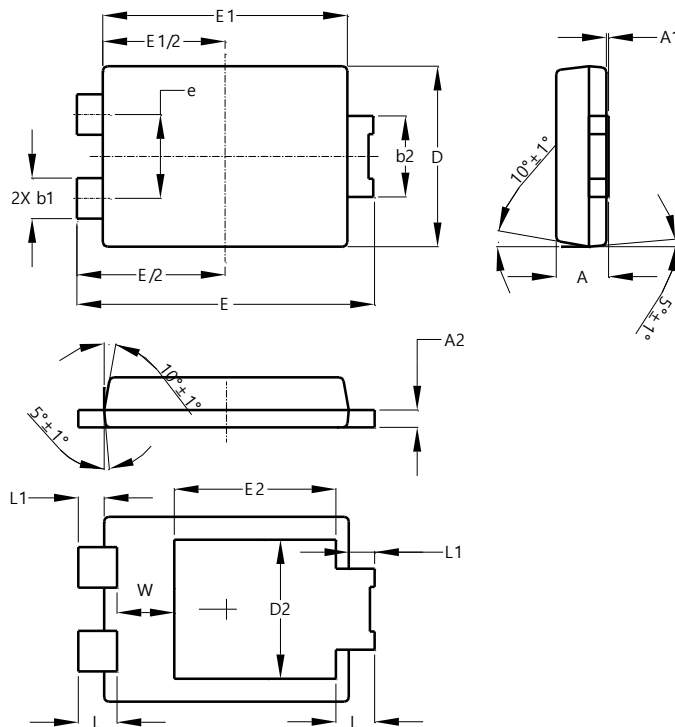


Figure 5. Typical Junction Capacitance

Package Outline Dimensions

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

PowerDI5

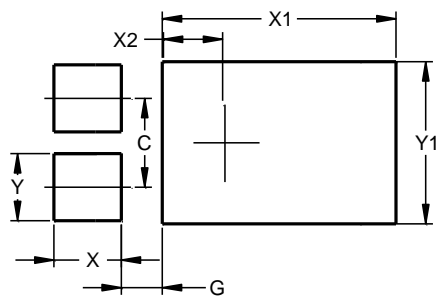


PowerDI5			
Dim	Min	Max	Typ
A	1.05	1.15	1.10
A1	0.00	0.05	--
A2	0.33	0.43	0.381
b1	0.80	0.99	0.89
b2	1.70	1.88	1.78
D	3.90	4.05	3.966
D2	--	--	3.054
E	6.40	6.60	6.51
e	--	--	1.84
E1	5.30	5.45	5.37
E2	--	--	3.549
L	0.75	0.95	0.85
L1	0.50	0.65	0.57
W	1.10	1.41	1.255
All Dimensions in mm			

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	1.400
X1	4.860
X2	1.310
Y	1.390
Y1	3.360

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