

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

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitance load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _{RM}		
Average Rectified Output Current	I _O	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	135	°C/W
Typical Thermal Resistance, Junction to Case (Note 5)	R _{θJC}	20	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 6)	R _{θJA}	85	°C/W
Typical Thermal Resistance, Junction to Case (Note 6)	R _{θJC}	12	°C/W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V _{(BR)R}	100	—	—	V	I _R = 1.0mA
Forward Voltage Drop	V _F	—	0.75	0.82	V	I _F = 1A, T _J = +25°C
		—	0.81	—		I _F = 2A, T _J = +25°C
		—	0.60	—		I _F = 1A, T _J = +125°C
Leakage Current (Note 7)	I _R	—	0.15	5	μA	V _R = 100V, T _J = +25°C
		—	0.110	5	mA	V _R = 100V, T _J = +125°C
Total Capacitance	C _T	—	28	—	pF	V _R = 4V, f = 1MHz

Notes: 5. Device mounted on 1 x MRP FR-4 PC board, 2oz.
 6. Device mounted on 1inch sq. copper pad, 2oz.
 7. Short duration pulse test used to minimize self-heating effect.

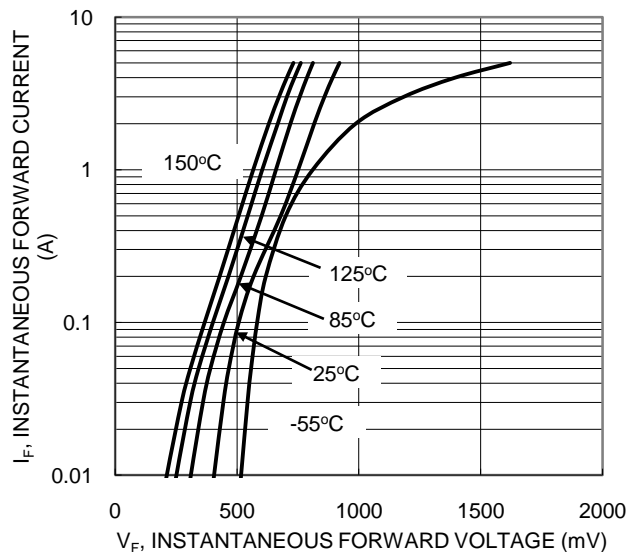


Figure 1. Typical Forward Characteristics

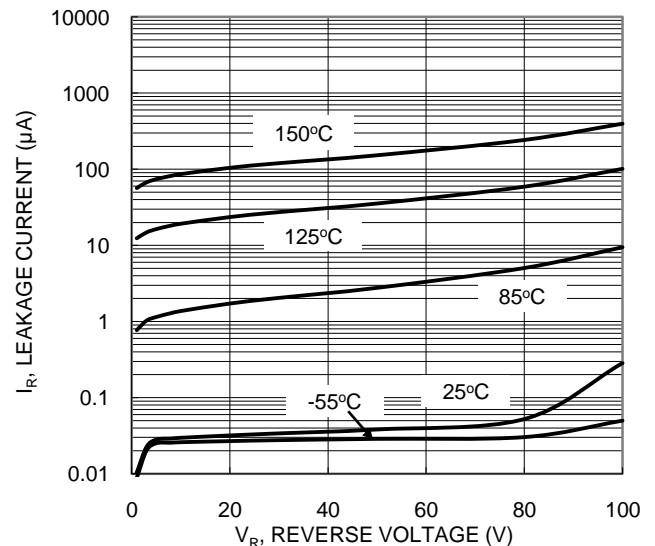
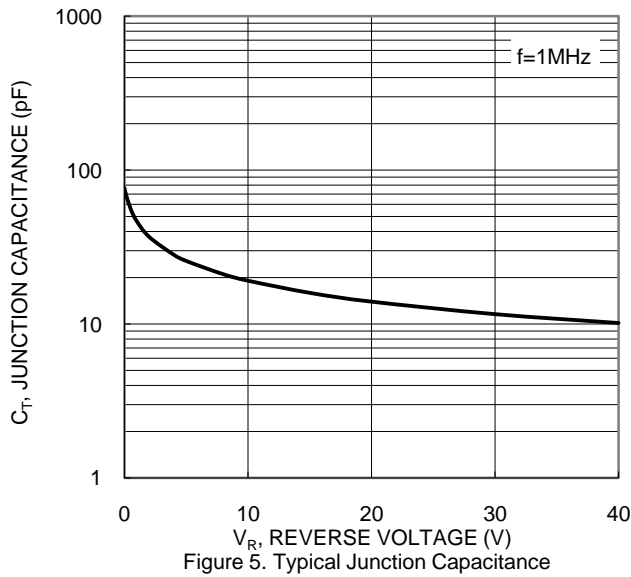
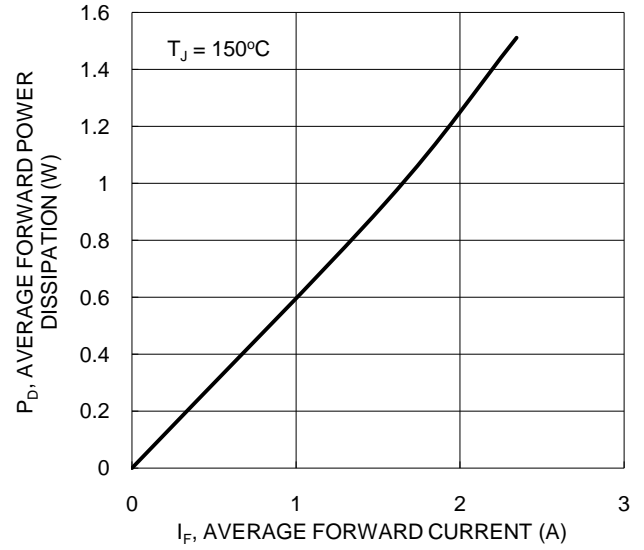
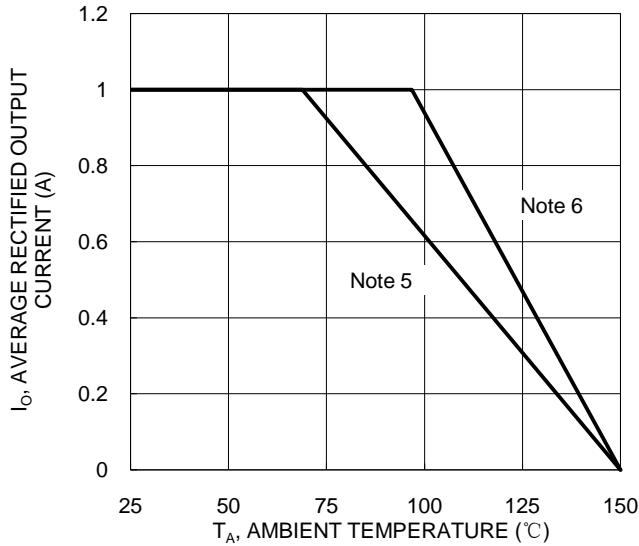


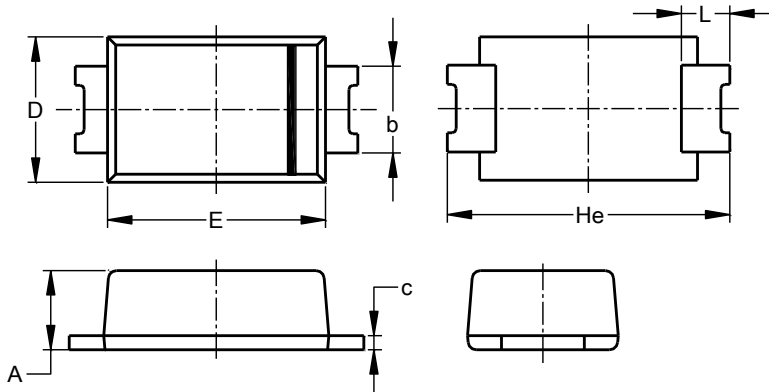
Figure 2. Typical Reverse Characteristics



Package Outline Dimensions

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

SOD123F (Type B)

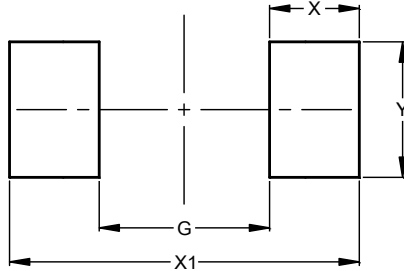


SOD123F (Type B)			
Dim	Min	Max	Typ
A	0.81	1.15	--
b	0.80	1.35	--
c	0.05	0.30	--
D	1.70	1.90	1.80
E	2.60	2.80	2.70
He	3.30	3.70	3.50
L	0.35	0.85	--
All Dimensions in mm			

Suggested Pad Layout

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

SOD123F (Type B)



Dimensions	Value (in mm)
G	1.90
X	1.00
X1	3.90
Y	1.50

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