

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

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _{RM}	20	V
RMS Reverse Voltage	V _{R(RMS)}	14	V
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}	10	A

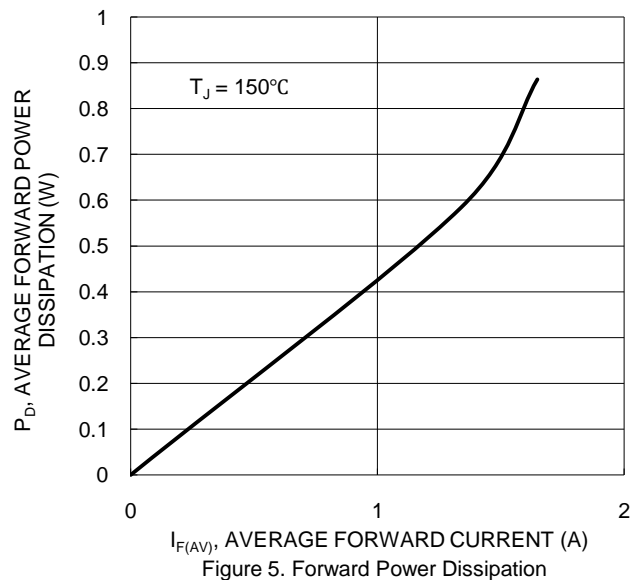
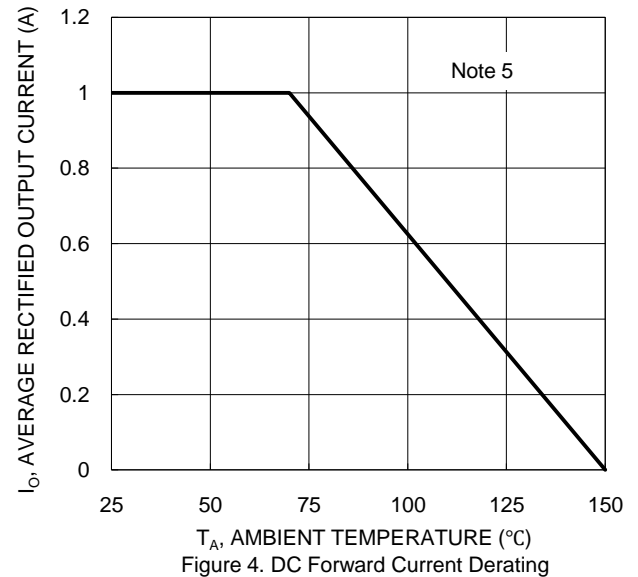
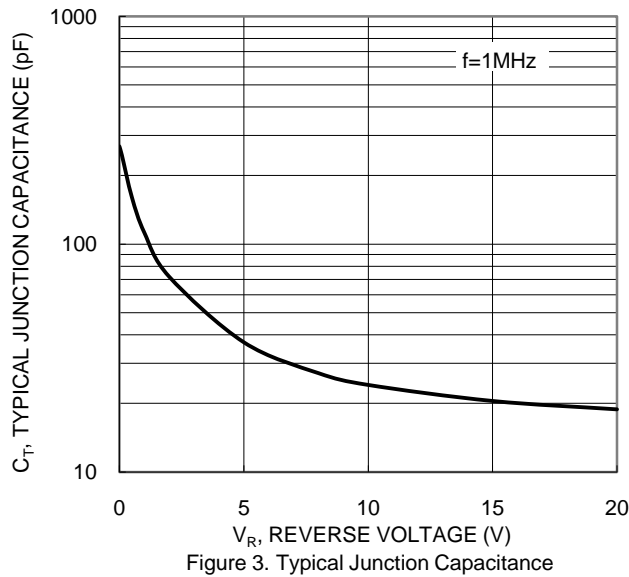
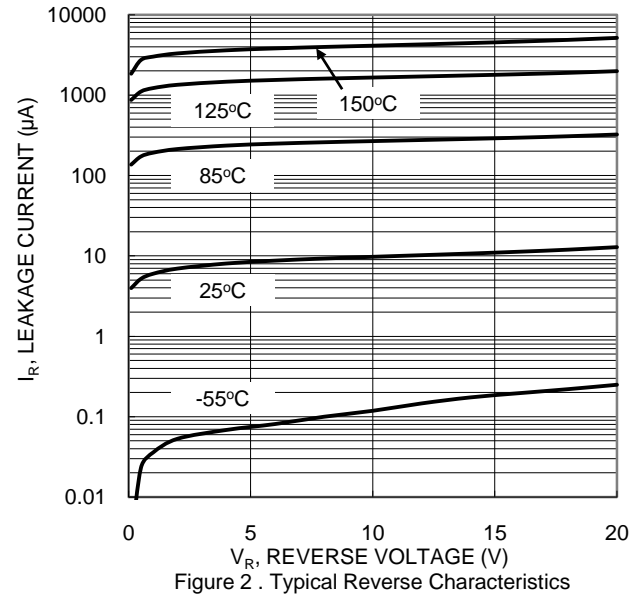
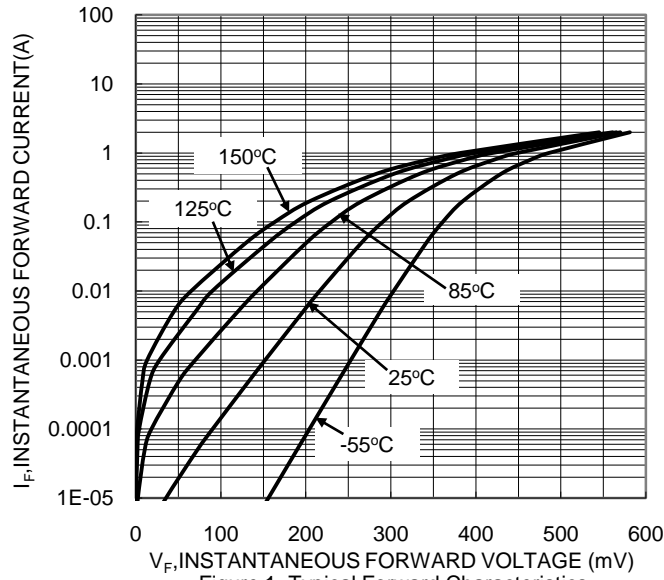
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	R _{θJA}	270	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	165	°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 (Note 7)	V _F	—	0.29 0.45	— 0.52	V	I _F = 100mA, T _J = +25°C I _F = 1A, T _J = +25°C
Leakage Current (Note 7)	I _R	—	0.02 2.5	0.20 —	mA	V _R = 20V, T _J = +25°C V _R = 20V, T _J = +125°C
Reverse Recovery Time	t _{RR}	—	15	—	ns	I _F =10mA, I _{RRM} =0.1I _R , T _A = +25°C
Typical Capacitance	C _T	—	19	—	pF	V _R = 20V, f = 1MHz

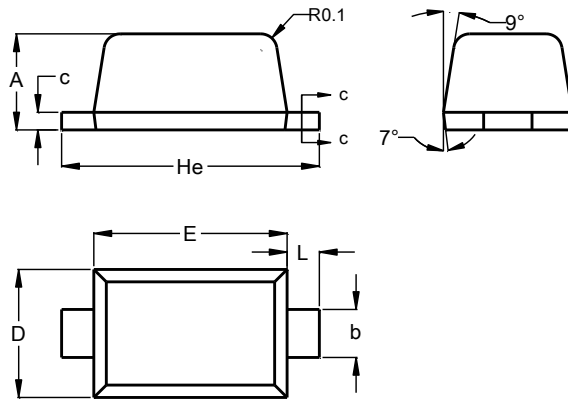
Notes: 5. Device mounted on MRP FR-4 substrate PC board, 2oz.
6. Device mounted on FR-4 substrate PC board with 1inch square copper pad, 2oz.
7. Short duration pulse test used to minimize self-heating effect.



Package Outline Dimensions

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

SOD523

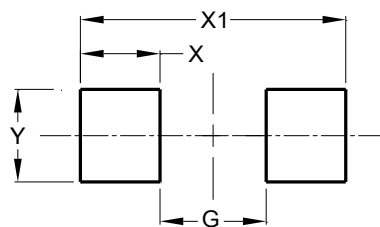


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Dim	Min	Max
A	0.55	0.65
b	0.26	0.34
c	0.11	0.17
D	0.75	0.85
E	1.15	1.25
He	1.55	1.65
L	0.10	0.30
All Dimensions in mm		

Suggested Pad Layout

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

SOD523



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70

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