

Marking Information

SOD-523



23 = Product Type Marking Code

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}	30	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _{RM}		
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Output Current (See Figure 1)	I _O	0.2	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	5	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Maximum Thermal Resistance	R _{θJA}	480	°C/W
Thermal Resistance Junction to Ambient (Note 6)			
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
Reverse Breakdown Voltage (Note 7)	V _{(BR)R}	30	-	-	V	I _R = 400μA
Forward Voltage Drop	V _F	-	0.50 0.46 0.57 0.55	0.54 0.49 0.61 0.58	V	I _F = 0.1A, T _J = +25°C I _F = 0.1A, T _J = +85°C I _F = 0.2A, T _J = +25°C I _F = 0.2A, T _J = +85°C
Leakage Current (Note 7)	I _R	-	0.2 -	2 0.1	μA mA	V _R = 30V, T _J = +25°C V _R = 30V, T _J = +125°C
Reverse Recovery Time	t _{rr}	-	5	-	ns	I _F = 10mA through I _R = 10mA to I _R = 1mA, R _L = 100Ω

Notes: 6. Minimum recommended pad layout of FR-4 PCB, 2 oz. Copper, which can be found on our website at www.diodes.com/package-outlines.html.
 7. Short duration pulse test used to minimize self-heating effect.

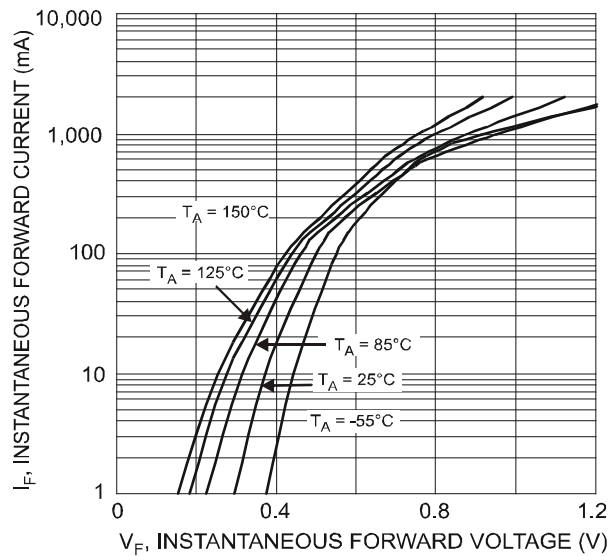


Fig. 1 Typical Forward Characteristics

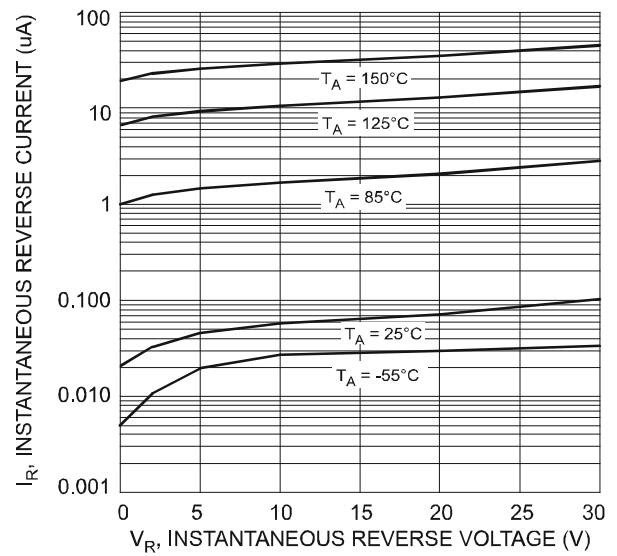


Fig. 2 Typical Reverse Characteristics

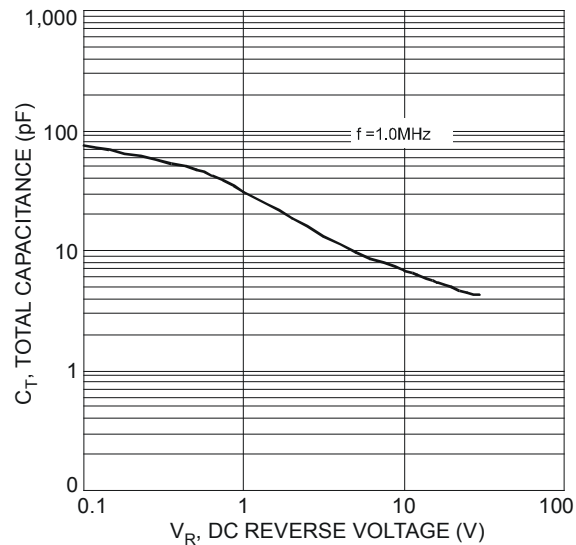


Fig. 3 Total Capacitance vs. Reverse Voltage

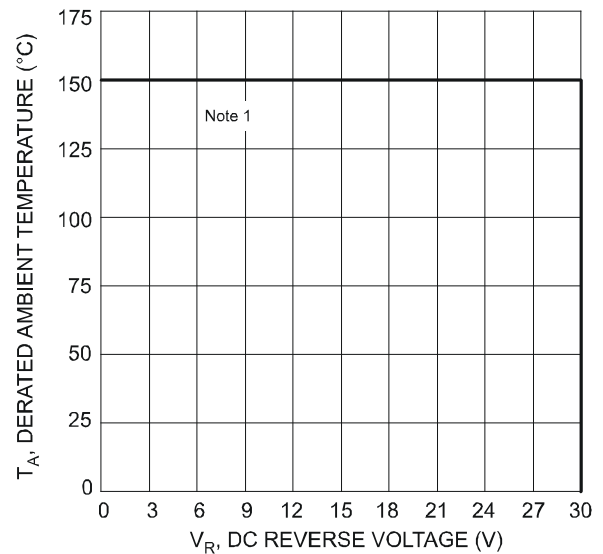
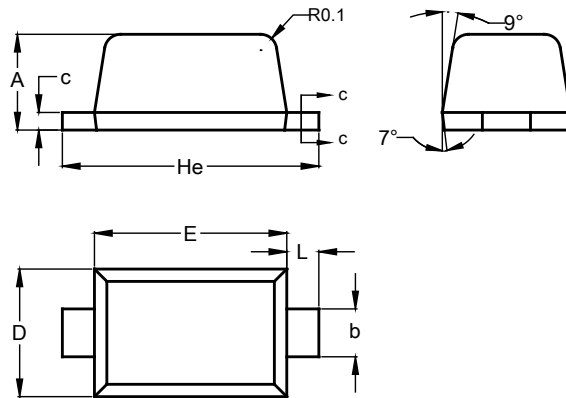


Fig. 4 Operating Temperature Derating

Package Outline Dimensions

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

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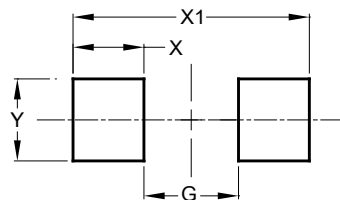


SOD523		
Dim	Min	Max
A	0.55	0.65
b	0.26	0.34
c	0.11	0.17
D	0.75	0.85
E	1.15	1.25
He	1.55	1.65
L	0.10	0.30
All Dimensions in mm		

Suggested Pad Layout

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

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

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