

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

Characteristic		Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	V
Reverse Voltage		V_{R}	80	V
RMS Reverse Voltage		$V_{R(RMS)}$	53	V
Forward Continuous Current		I _{FM}	250	mA
Average Rectified Output Current		I ₀	125	mA
Non-Repetitive Peak Forward Surge Current	@ t = 1.0µs @ t = 100ms	I _{FSM}	2.0 1.0	А

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P_{D}	150	mW
Thermal Resistance Junction to Ambient Air (Note 6)	$R_{\theta JA}$	833	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

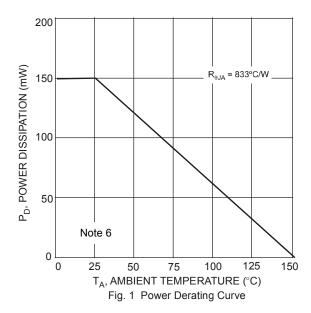
Electrical Characteristics (@ T_A = +25°C, unless otherwise specified.)

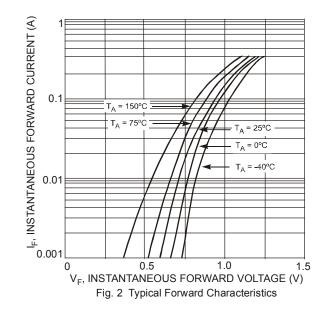
Characteristic	Symbol	Min	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 7)	V _{(BR)R}	75	_	V	$I_R = 1.0 \mu A$
Forward Voltage	V _F	_	0.715 0.855 1.0 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Peak Reverse Current (Note 7)	I _R	_	1.0 50 30 25	μA μA	V _R = 75V V _R = 75V, T _J = +150°C V _R = 25V, T _J = +150°C V _R = 20V
Total Capacitance	C _T	_	2.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{RR}	_	4.0	l ne	$I_F = I_R = 10 \text{mA},$ $I_{RR} = 0.1 \text{ x } I_R, R_L = 100 \Omega$

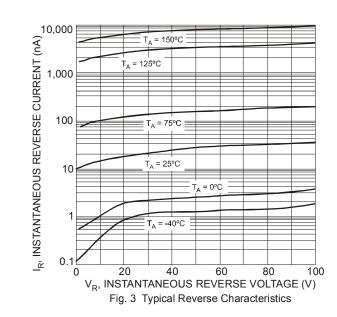
Notes:

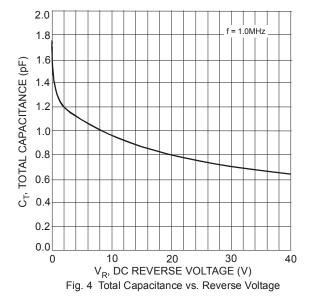
^{6.} Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.
7. Short duration pulse test used to minimize self-heating effect.









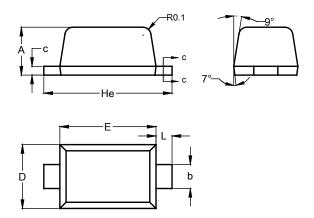




Package Outline Dimensions

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

SOD523

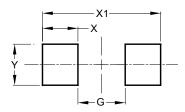


SOD523			
Dim	Min	Max	
Α	0.55	0.65	
b	0.26	0.34	
С	0.11	0.17	
D	0.75	0.85	
Е	1.15	1.25	
He	1.55	1.65	
L	0.10	0.30	
All Dimensions in mm			

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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