



Schottky Barrier Diode

B0520LWS/B0530WS/B0540WS

FEATURES

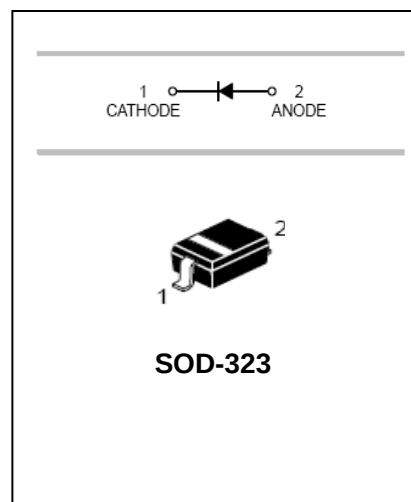
- Low forward voltage drop
- Guard ring construction for transient Protection
- High conductance



Lead-free

APPLICATIONS

- surface mount schottky barrier rectifier



ORDERING INFORMATION

Type No.	Marking	Package Code
B0520LWS	SD	SOD-323
B0530WS	SE	SOD-323
B0540WS	SF	SOD-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	B0520LWS	B0530WS	B0540WS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	20	30	40	V
DC Reverse Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current	I_O	0.5			A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	2			A
Power Dissipation	P_d	235			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	426			°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +125			°C



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	B0520LW	B0530W	B0540W	Unit	Test Conditions
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	20 - -	- 30 -	- - 40	V	$I_R = 250\mu A$ $I_R = 130\mu A$ $I_R = 20\mu A$
Maximum Forward Voltage Drop	V_{FM}	0.300 0.385 -	0.375 0.430 -	- 0.510 0.620	V	$I_F = 0.1A$ $I_F = 0.5A$ $I_F = 1.0A$
Maximum Leakage Current	I_{RM}	75 - 250 - -	- 20 - 130 -	- - 10 - 20	μA	$V_R = 10V$ $V_R = 15V$ $V_R = 20V$ $V_R = 30V$ $V_R = 40V$
Reverse Recovery Time	t_{rr}	4			ns	$I_F = I_R = 10mA$ $I_{rr} = 0.1I_R, R_L = 100\Omega$
Junction Capacitance	C_J	170			pF	$f = 1MHz, V_R = 0V DC$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

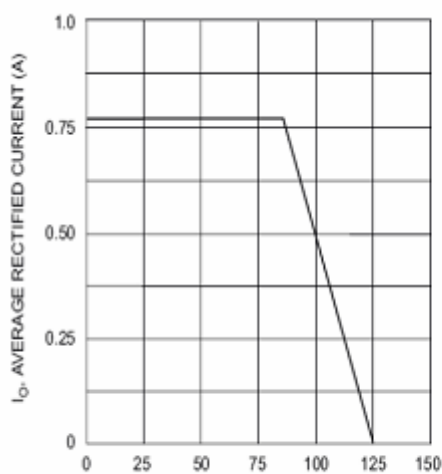


Fig. 1 Forward Current Derating Curve

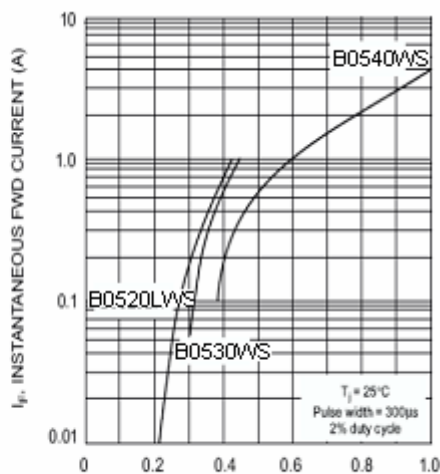


Fig. 2 Typical Forward Characteristics

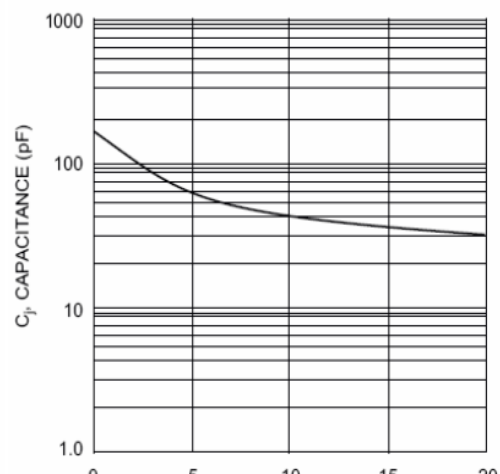


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage



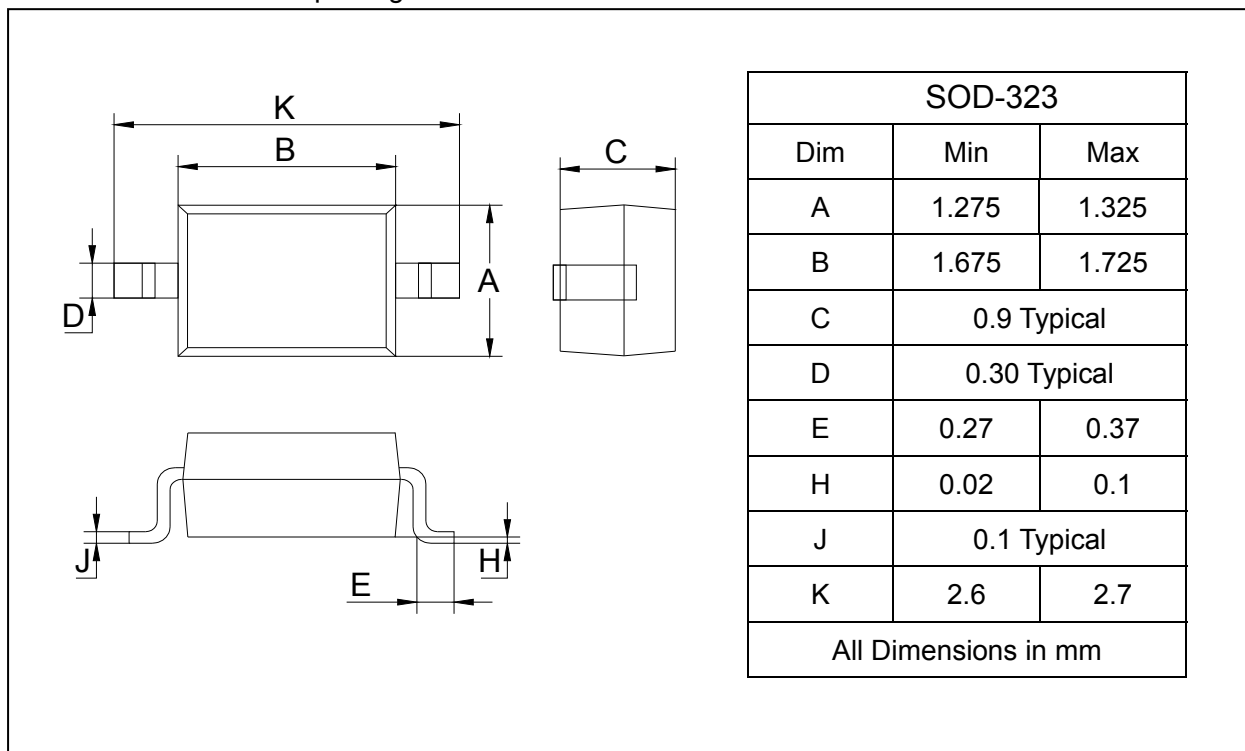
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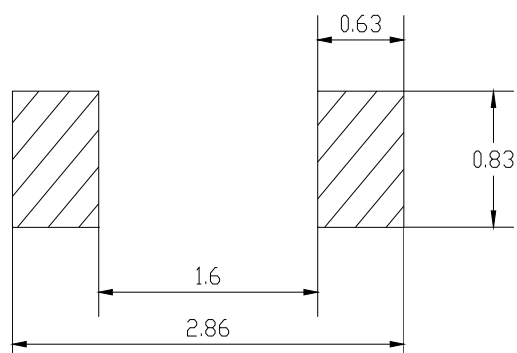
PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
B0520LWS/B0530WS/B0540WS	SOD-323	3000/Tape&Reel