

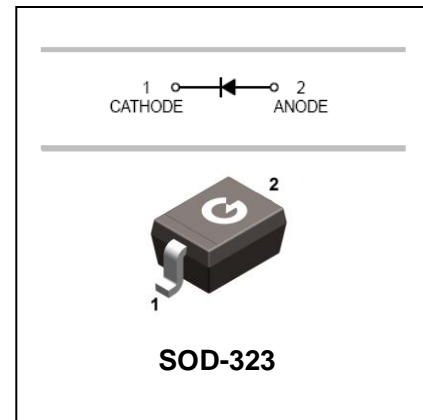
## Schottky Barrier Diode

## B0520LWS/B0530WS/B0540WS

### FEATURES

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

HF



### 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	235		mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	320	426		°C/W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 to +100	-55 to +125		°C

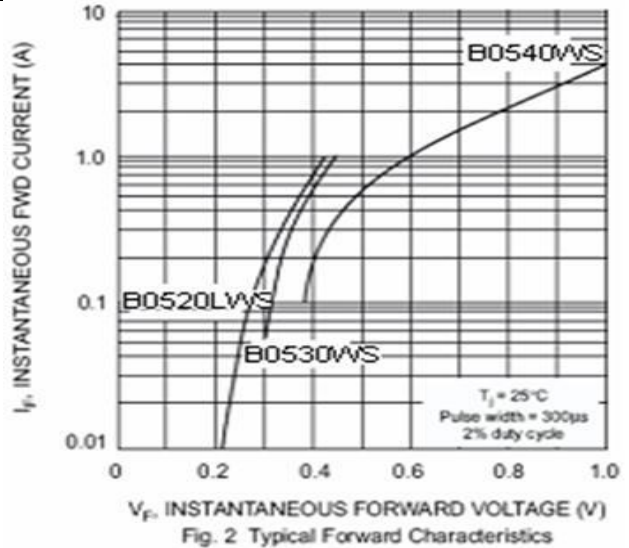
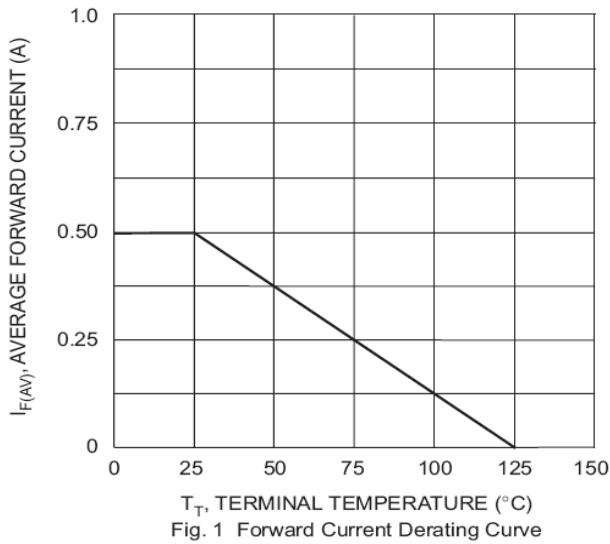
Schottky Barrier Diode

**B0520LWS/B0530WS/B0540WS**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	B0520LWS	B0530WS	B0540WS	Unit	Test Conditions
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	20	-	-	V	$I_R = 250\mu A$
		-	30	-		$I_R = 130\mu A$
		-	-	40		$I_R = 20\mu A$
Maximum Forward Voltage Drop	$V_{FM}$	0.300	0.375	-	V	$I_F = 0.1A$
		0.385	0.430	0.510		$I_F = 0.5A$
		-	-	0.620		$I_F = 1.0A$
Maximum Leakage Current	$I_{RM}$	75	-	-	$\mu A$	$V_R = 10V$
		-	20	-		$V_R = 15V$
		250	-	10		$V_R = 20V$
		-	130	-		$V_R = 30V$
		-	-	20		$V_R = 40V$
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



Schottky Barrier Diode

**B0520LWS/B0530WS/B0540WS**

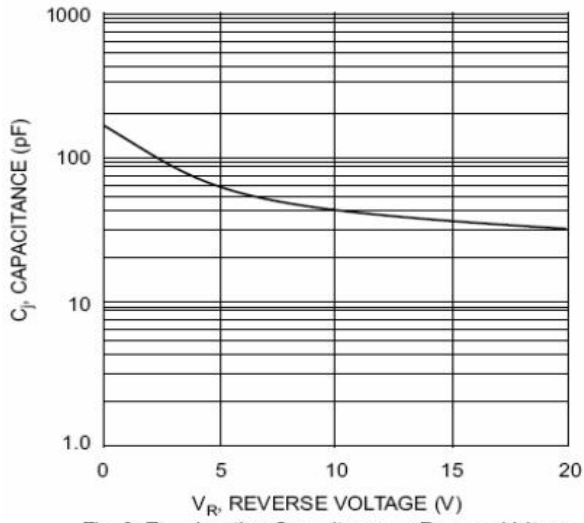


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

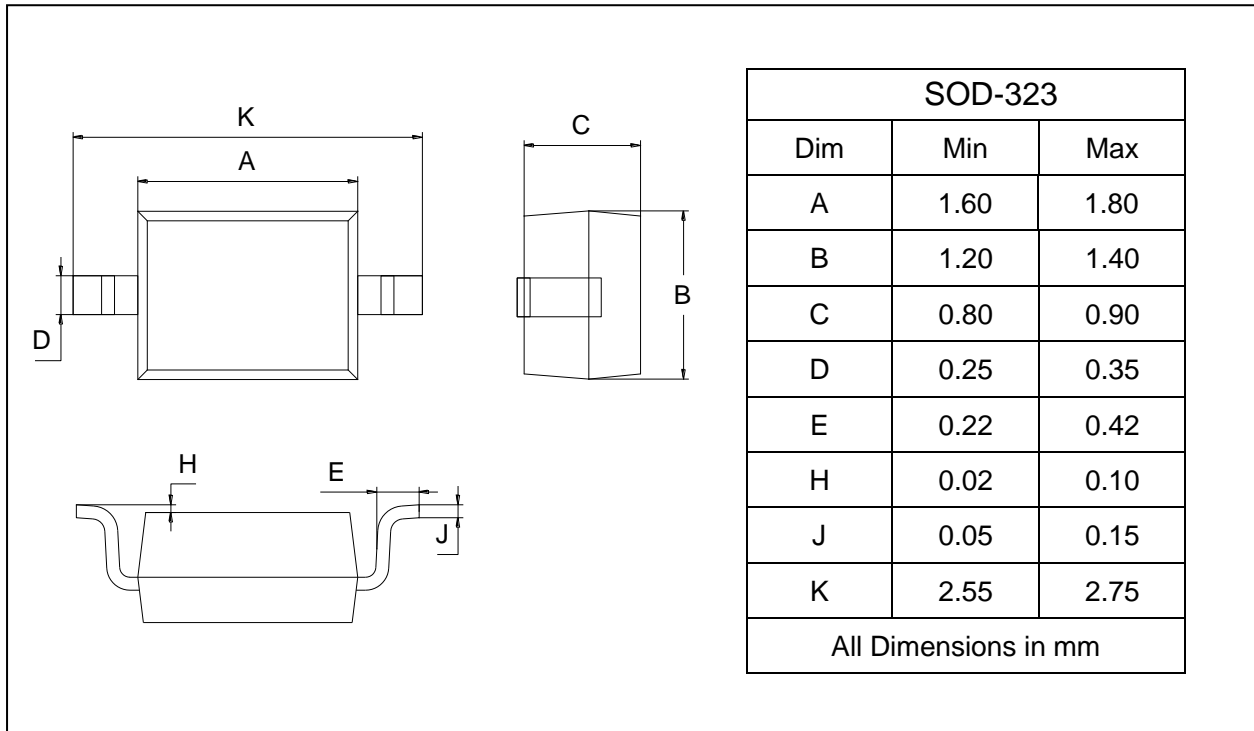
## Schottky Barrier Diode

## B0520LWS/B0530WS/B0540WS

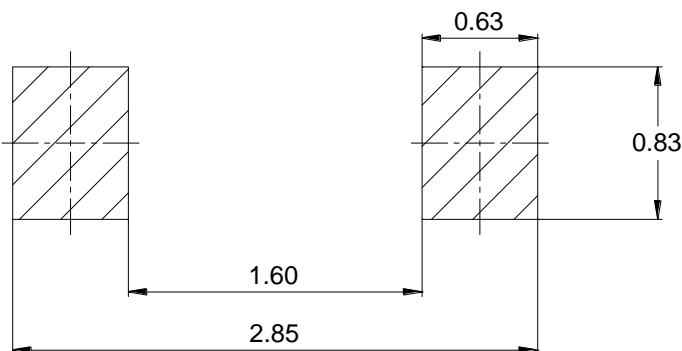
### PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



### SOLDERING FOOTPRINT



Unit: mm

### PACKAGE INFORMATION

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