

Surface Mount Schottky Barrier Diode

 Lead(Pb)-Free

Features:

- * Ultra high-speed switching
- * Very low forward voltage
- * Voltage clamping Protection circuits.

SCHOTTKY DIODE

1.0 AMPERES

20 VOLTS



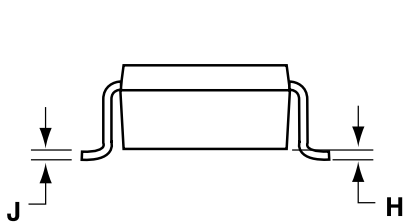
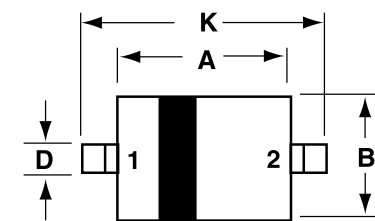
SOD-323

Mechanical Data:

- * Case: SOD-323
- * Plastic Material –UL Recognition Flammability Classification 94V-0
- * Leads: Solderable per MIL-STD-202, Method 208
- * Polarity: Cathode Band
- * Weight: 0.004 grams(approx.)

SOD-323 Outline Demensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15 REF	
H	0.00	0.10
J	0.089	0.177
K	2.30	2.70

PIN 1.CATHODE
2.ANODE

B1020WS**Maximum Ratings** ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	20	V
Average Rectified Output Current	I_O	1.0	A
Non-Repitive Peak Forward Surge Current	I_{FSM}	5.0	A
Thermal Resistance junction to Ambient	$R_{\theta JA}$	220 ¹ 180 ²	$^{\circ}\text{C/W}$ $^{\circ}\text{C/W}$
Operating Ambient temperature Range	T_{amb}	-65 to +125	$^{\circ}\text{C}$
Operating Temperature Range	T_J	+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^{\circ}\text{C}$

1. Device mounted on an FR4 printed-circuit board with Cu clad 10x10mm.
2. Device mounted on an FR4 printed-circuit board with Cu clad 40x40mm

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Forward Voltage $I_F=10\text{mA}$ $I_F=100\text{mA}$ $I_F=1000\text{mA}$	V_F	-	240 300 480	270 350 550	mV
Reverse Current $V_R=5\text{V}$ $V_R=8\text{V}$ $V_R=15\text{V}$	I_R	-	5 7 10	10 20 50	μA
Capacitance between terminals $V_R=5\text{V}$, $f=1.0\text{MHz}$	C_d	-	19	25	pF

Device Marking

Item	Marking	Equivalent Circuit diagram
B1020WS	V2	

Electrical Characteristic curves($T_A=25^\circ\text{C}$)

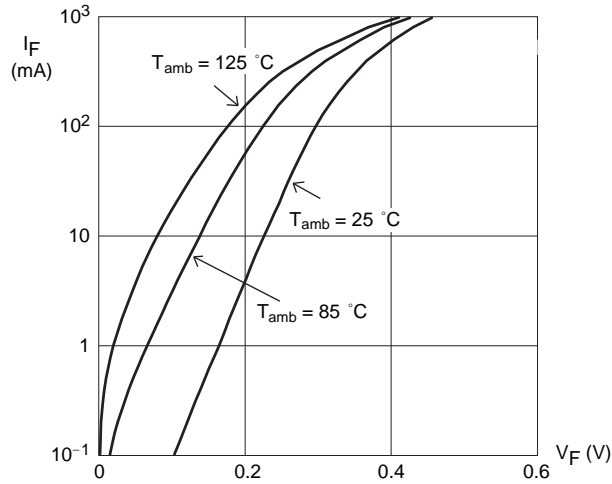


Fig.1 Forward current as a function of forward

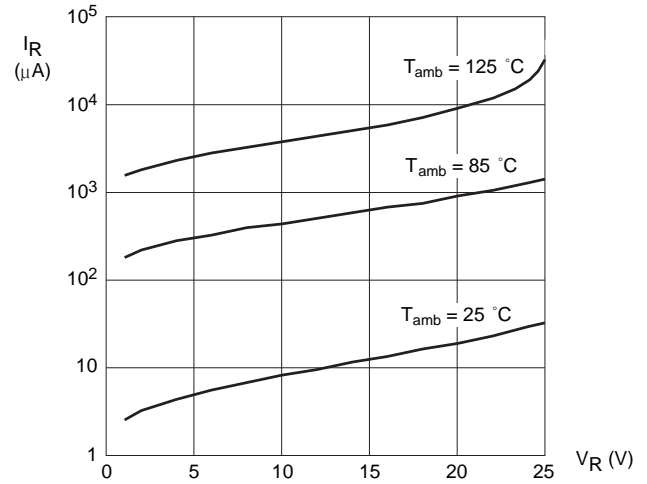


Fig.2 Reverse current as a function of reverse

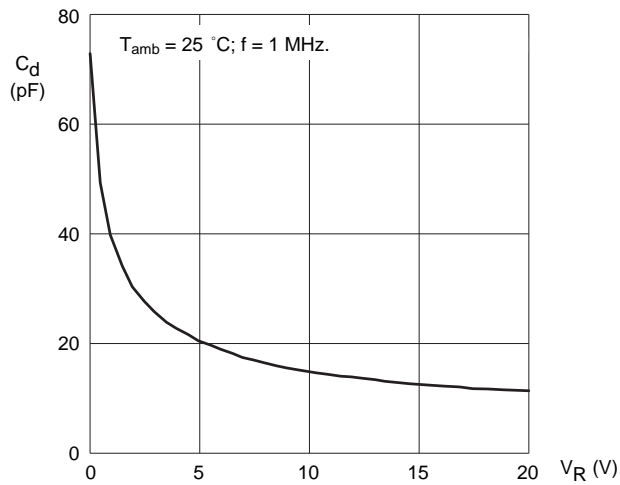


Fig.3 Diode capacitance as a function of reverse