

Surface Mount Schottky Barrier Diode

(Pb) Lead(Pb)-Free

Features:

- * Low Forward Voltage Drop
- * Guard Ring Construction for Transient Protection
- * High Conductance

Mechanical Data:

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

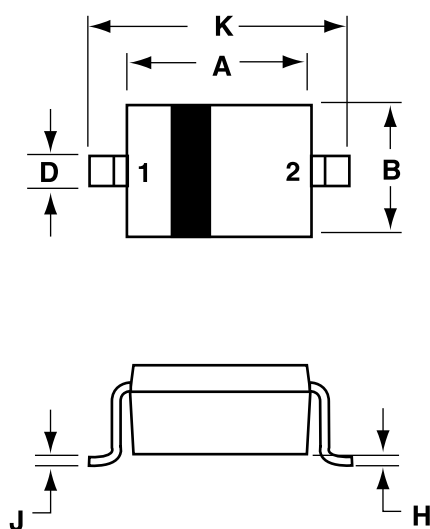
SCHOTTKY DIODE
500m AMPERES
20 VOLTS



SOD-323

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

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Average Rectified Output Current	I_O	500	mA
Peak Forward Surge Current	I_{FSM}	2.0	A
Power Dissipation	P_d	250	mW
Thermal Resistance junction to Ambient	$R_{\theta JA}$	426	$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +125	$^{\circ}\text{C}$

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

Characteristic	Symbol	Value	Unit
Reverse Breakdown Voltage $I_R=250\mu\text{A}$	$V_{(BR)R}$	20	V
Forward Voltage $I_F=0.1\text{A}$ $I_F=0.5\text{A}$	V_F	0.31 0.43	V
Reverse Current $V_R=10\text{V}$ $V_R=20\text{V}$	I_R	100 250	μA
Capacitance between terminals $V_R=0\text{V}$, $f=1.0\text{MHz}$	C_T	170	pF

Device Marking

Item	Marking	Equivalent Circuit diagram
B0520WS	SD	

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

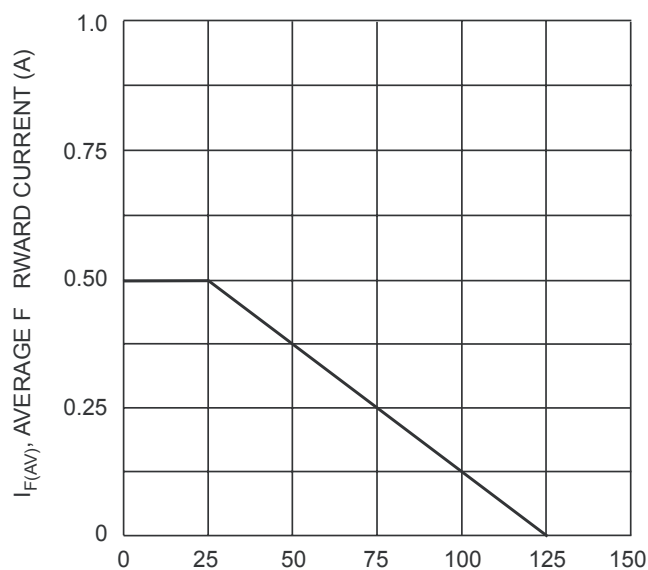


Fig. 1 Forward Current Derating Curve

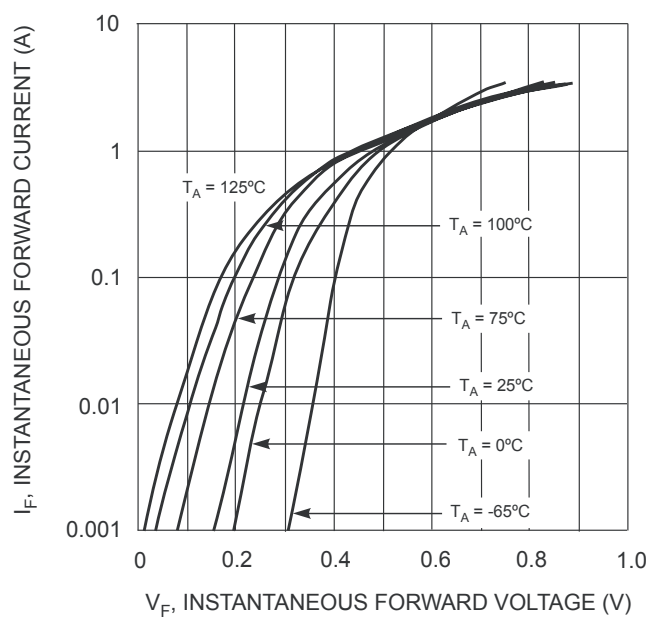


Fig. 2 Typical Forward Characteristics

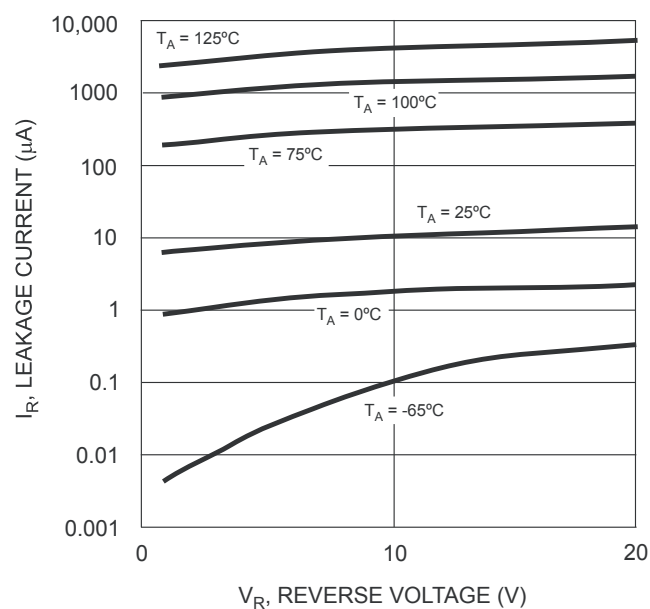


Fig. 3 Typical Reverse Characteristics

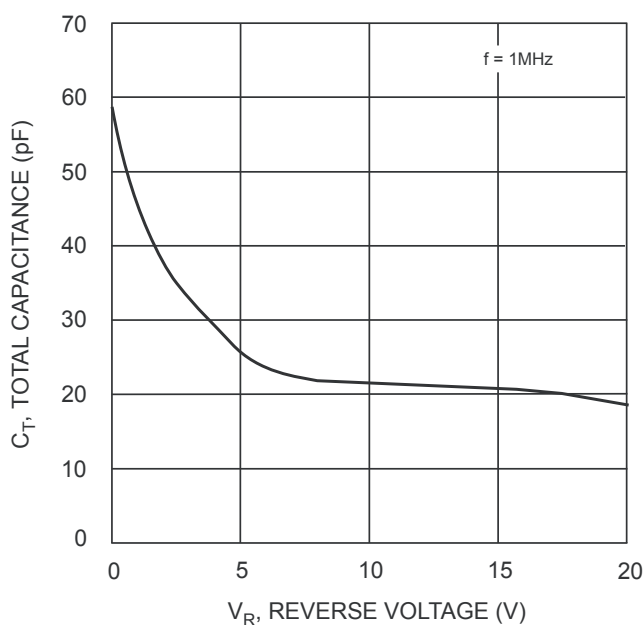


Fig. 4 Typ. Total Capacitance vs Reverse Voltage