

Surface Mount Schottky Barrier Diode

 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-0
- * Leads: Solderable per MIL-STD-202, Method 208
- * Polarity: Cathode Band
- * Weight: 0.004 grams(approx.)

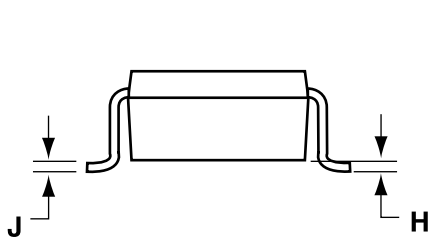
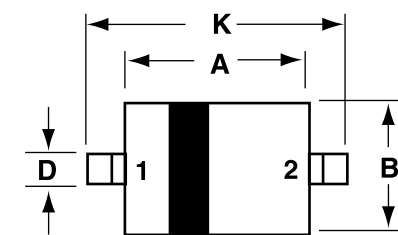
SCHOTTKY DIODE
500m AMPERES
20 VOLTS



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°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 _{θJA}	426	°C/W
Operating Temperature Range	T _J	+125	°C
Storage Temperature Range	T _{STG}	-55 to +125	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Reverse Breakdown Voltage I _R =250μA	V _{(BR)R}	20	V
Forward Voltage I _F =0.1A I _F =0.5A	V _F	0.31 0.43	V
Reverse Current V _R =10V V _R =20V	I _R	100 250	μA
Capacitance between terminals V _R =0V, f=1.0MHz	C _T	170	pF

Device Marking

Item	Marking	Equivalent Circuit diagram
B0520WS	SD	

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

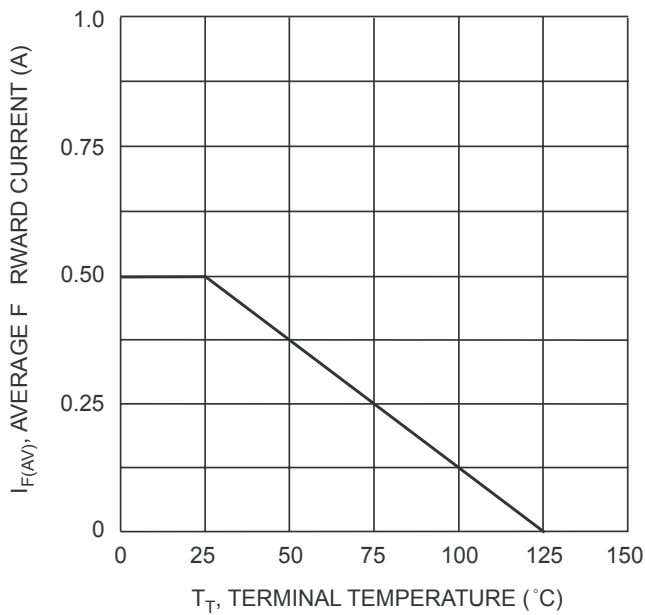


Fig. 1 Forward Current Derating Curve

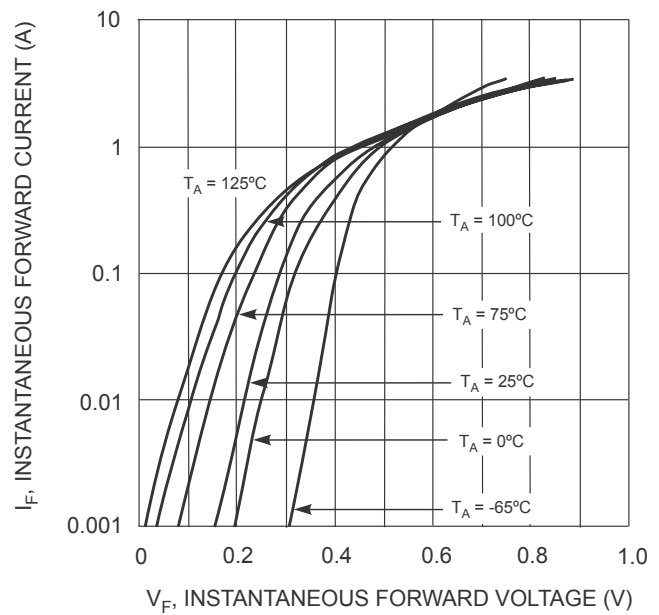


Fig. 2 Typical Forward Characteristics

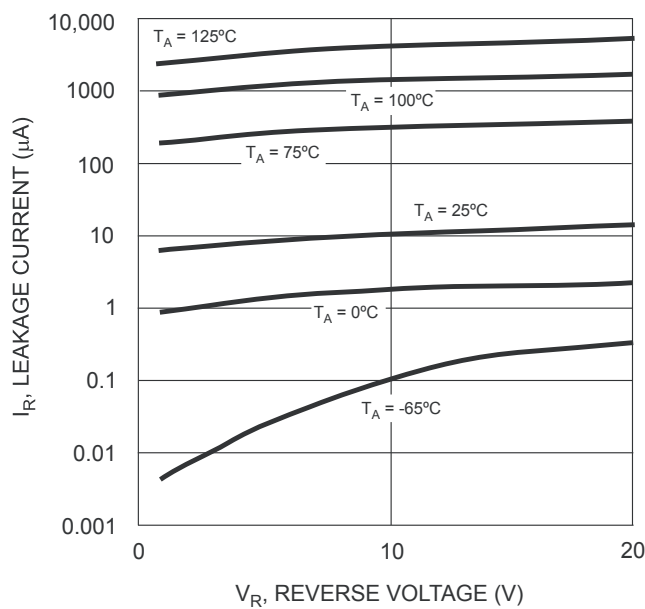


Fig. 3 Typical Reverse Characteristics

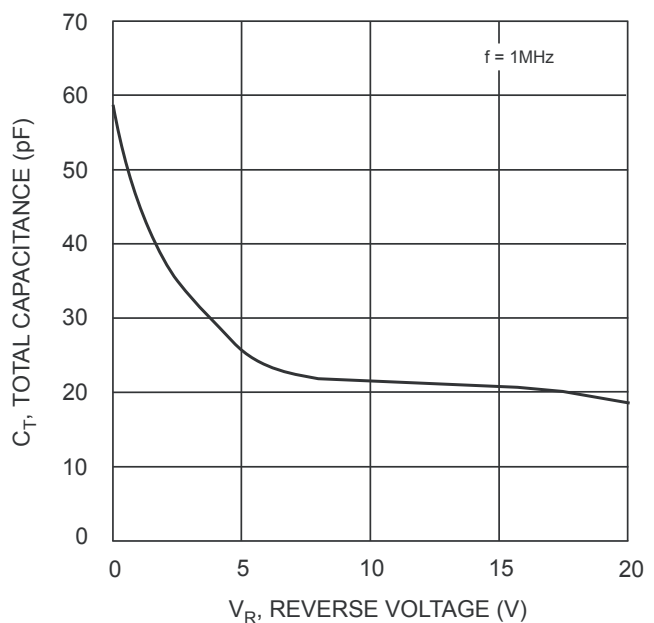


Fig. 4 Typ. Total Capacitance vs Reverse Voltage