



B0520WS THRU B0530WS

0.5A Surface Mount Schottky Barrier Rectifier



Voltage Range
20 to 30 Volts
235m Watts Power Dissipation

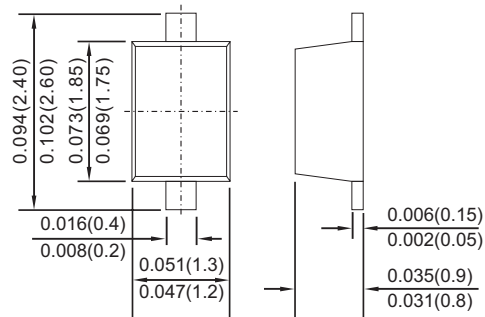
Features

- ✦ Low forward voltage drop
- ✦ Guard ring construction for transient protection
- ✦ High conductance
- ✦ Available in lead free version

Mechanical Data

- ✦ Case: SOD-323F, plastic
- ✦ Case material – UL Flammability Rating Classification 94V-0
- ✦ Moisture sensitivity: Level 1 per J-STD-020A
- ✦ Polarity: Cathode Band
- ✦ Terminals: Solderable per MIL-STD-202, Method 208
- ✦ Marking: Cathode Band and Type Code
- ✦ Type Code: SD, SE
- ✦ Weight: 0.004 grams (approx.)

SOD-323F



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	B0520WS	B0530WS	Units
Peak Repetitive Reverse Voltage	V _{RRM}			
Working Peak Reverse Voltage	V _{RWM}	20	30	V
DC Blocking Voltage	V _R			
RMS Reverse Voltage	V _{R(RMS)}	14	21	V
Average Rectified Current @ TL=100°C	I _o	0.5		A
Non-repetitive Peak Forward Surge Current 8.3ms Single half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	2		A
Power Dissipation (Note 1)	P _d	235		mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	426		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-40 to + 125		°C

Electrical Characteristics

Type Number	Symbol	Min	Typ	Max	Units
Reverse Breakdown Voltage (Note 2) I _R =500uA	V _{(BR)R}	30	-	-	V
Leakage Current (Note 2) V _R =15V V _R =20V V _R =30V	I _R	-	-	80 100 500	uA
Forward Voltage Drop (Note 2) I _F =0.1A I _F =0.5A	V _F	-	- 0.45	0.36 0.47	V
Junction Capacitance V _R =0, f=1MHz	C _j	-	58	-	pF

- Notes: 1. Valid Provided that Leads are Kept at Ambient Temperature.
2. Short duration test pulse used to minimize self-heating effect..

RATINGS AND CHARACTERISTIC CURVES (B0520WS THRU B0530WS)

FIG.1- FORWARD CURRENT DERATING CURVE

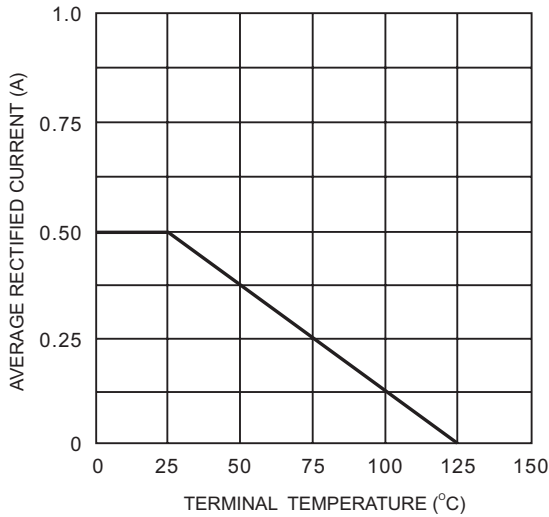


FIG.2- TYPICAL FORWARD CHARACTERISTICS

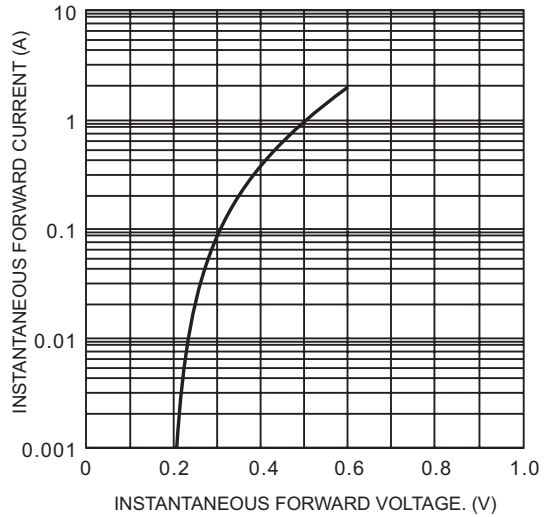


FIG. 3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

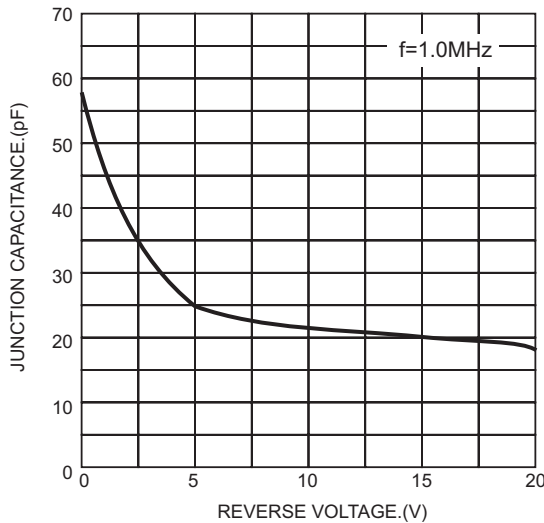


FIG.4- TYPICAL REVERSE CHARACTERISTICS

