B0530WS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

NEW PRODUCT

Features

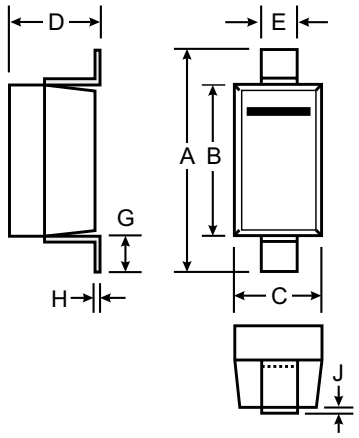
- Very Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance

Mechanical Data

- Case: SOD-323, Plastic
- Polarity: Cathode Band
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Date Code and Type Code

  Type Code: SE

- Weight: 0.004 grams (approx.)



SOD-323		
Dim	**Min**	**Max**
A	2.30	2.70
B	1.60	1.80
C	1.20	1.40
D	1.05 Typical	
E	0.25	0.35
G	0.20	0.40
H	0.10	0.15
J	0.05 Typical	
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	B0530WS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	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 (JEDEC Method)	I_{FSM}	2	A
Power Dissipation (Note 1)	P_d	235	mW
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	426	°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-40 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	30	—	—	V	I_R = 500μA
Forward Voltage Drop (Note 2)	V_F	— —	— 0.41	0.36 0.45	V	I_F = 0.1A I_F = 0.5A
Leakage Current (Note 2)	I_R	— — —	— — —	80 100 500	μA	V_R = 15V V_R = 20V V_R = 30V
Junction Capacitance	C_j	—	60	—	pF	f = 1MHz, V_R = 0VDC

Ordering Information (Note 3)

Device	Packaging	Shipping
B0530WS-7	SOD-323	3000/Tape and Reel

Note: 1. Valid provided that terminals are maintained at ambient temperature.
2. Short duration test pulse used to minimize self-heating effect.
3. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

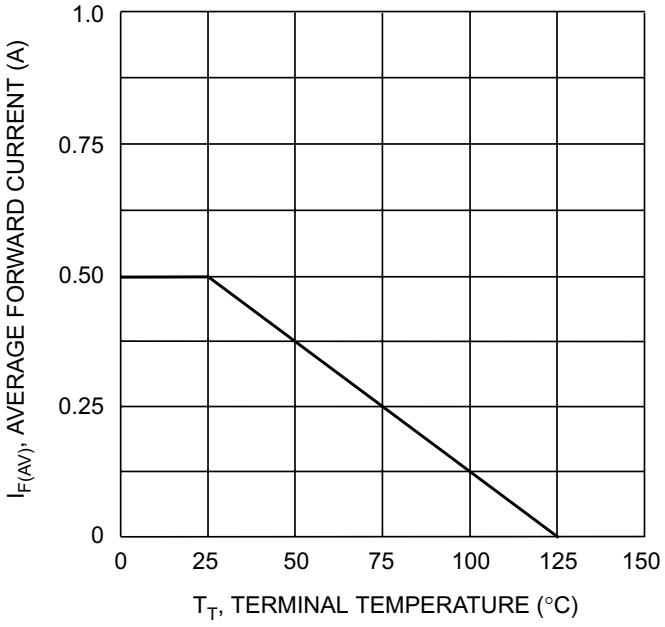


Fig. 1 Forward Current Derating Curve

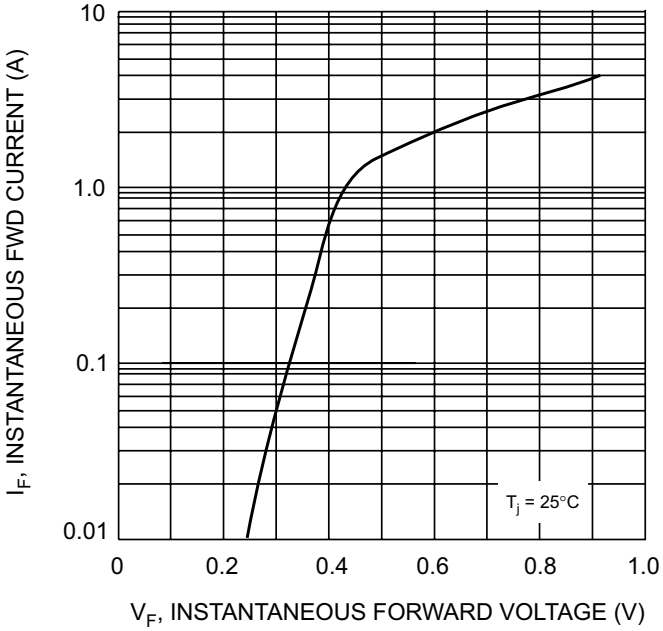


Fig. 2 Typical Forward Characteristics

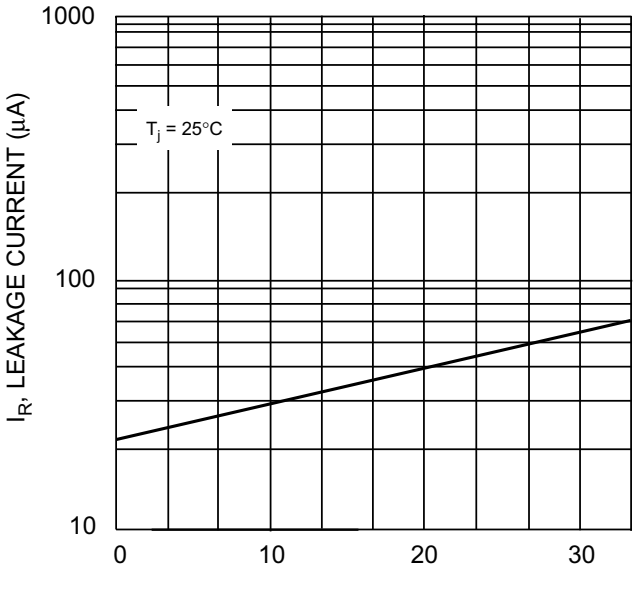


Fig. 3 Typical Reverse Characteristics

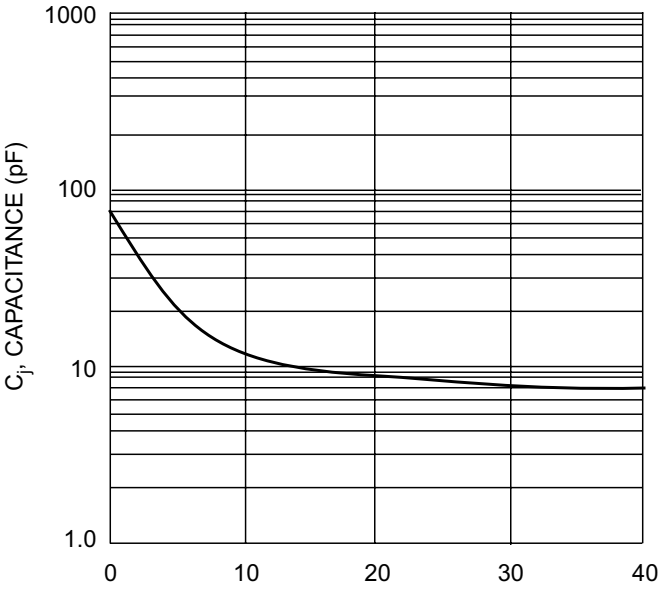


Fig. 4 Typ. Junction Capacitance vs Reverse Voltage