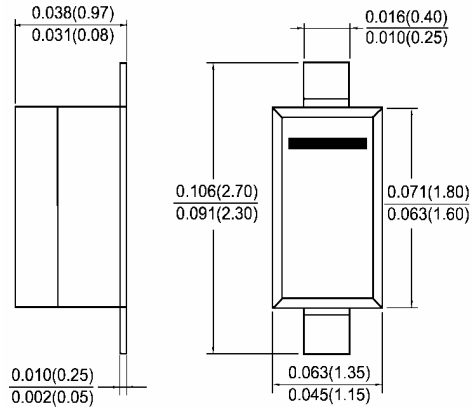


BAT42WS/BAT43WS

0.2W Surface Mount Flat Lead Fast Switching Schottky Barrier Diode

SOD-323F



Features

- ✧ Low forward voltage drop
- ✧ Flat Lead SOD-323F small outline plastic package
- ✧ Surface device type mounting
- ✧ Moisture sensitivity level 1
- ✧ Clip bonding construction, good thermal capability
- ✧ RoHS compliant
- ✧ Matte Tin (Sn) lead finish
- ✧ Band indicates cathode

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P _d	200	mW
Repetitive Peak Reverse Voltage	V _{RRM}	30	V
Maximum DC Blocking Voltage	V _R	30	V
Average Rectified Forward Current	I _{F(AV)}	200	mA
Peak Forward Surge Current	I _{FSM}	4.0	A
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125	°C

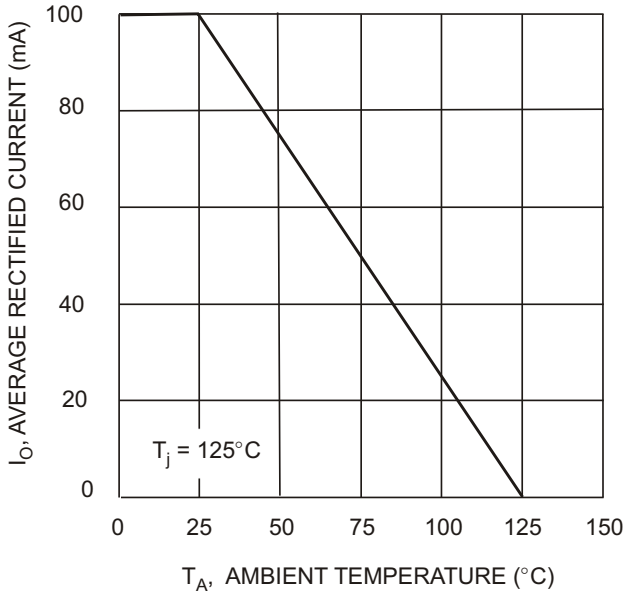
Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Breakdown Voltage @ I _R =100uA	B _V	30		V
Reverse Leakage Current @ V _R =25V	I _R		500	nA
Forward Voltage BAT42WS @ I _F =200mA BAT42WS @ I _F =10mA BAT42WS @ I _F =50mA BAT43WS @ I _F =200mA BAT43WS @ I _F =2mA BAT43WS @ I _F =15mA	V _F	0.26	1.0 0.4 0.65 1.0 0.33 0.45	V
Junction Capacitance VR=1, f=1.0MHz	C _j		7(Typ.)	pF
Reverse Recovery Time (Note 1)	t _{rr}		5(Typ.)	nS

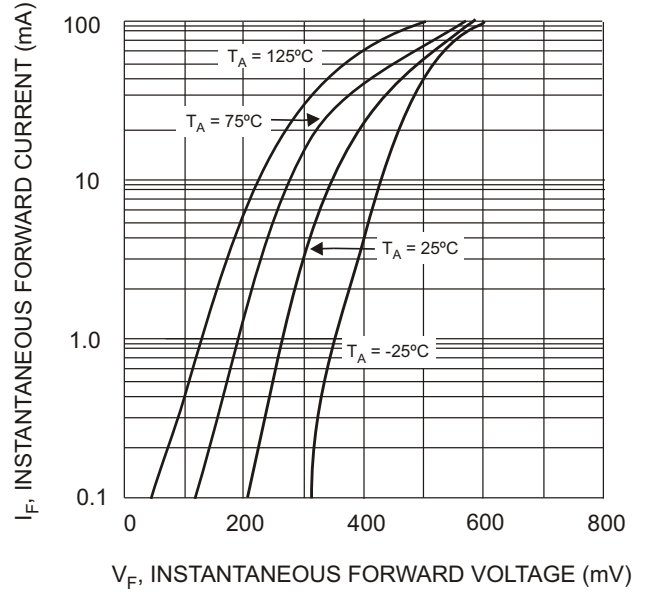
Note: 1 Reverse Recovery Test Conditions: I_F=I_R=10mA, I_{rr}=1mA, R_L=100Ω.

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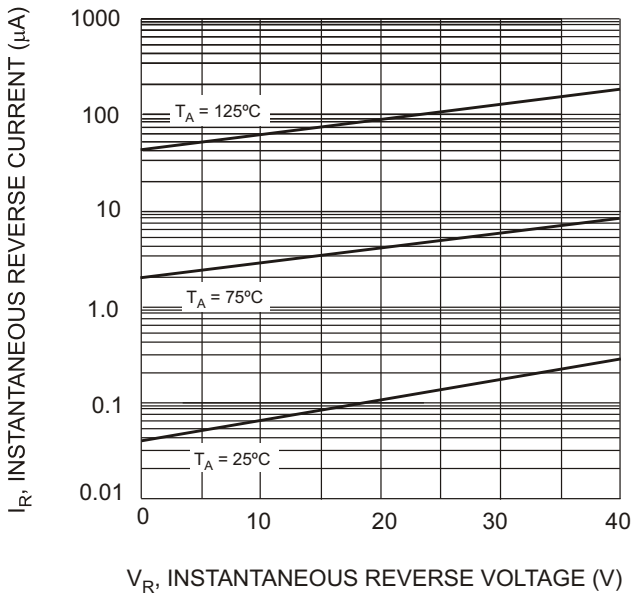
RATINGS AND CHARACTERISTIC CURVES (BAT42WS / BAT43WS)



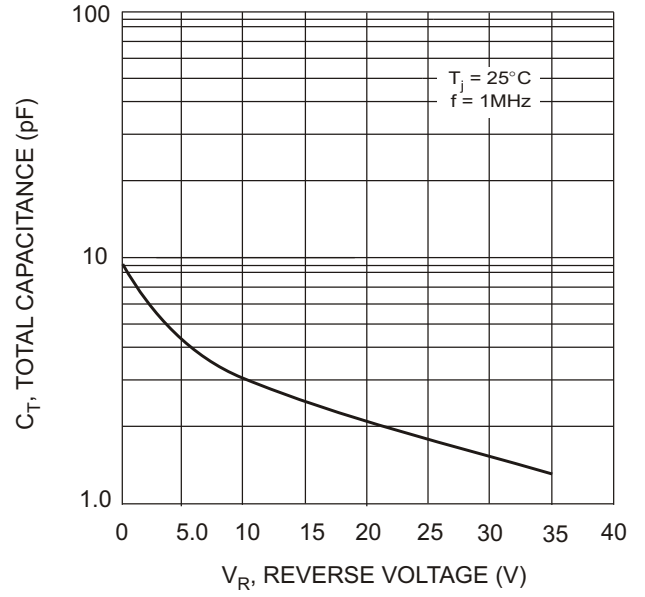
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (mV)
Fig. 2 Typical Forward Characteristics



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics



V_R , REVERSE VOLTAGE (V)
Fig. 4 Total Capacitance vs. Reverse Voltage