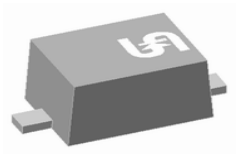
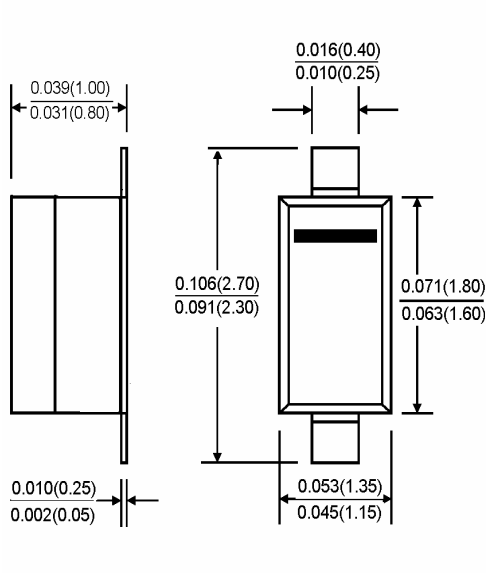
BAT42WS/BAT43WS

0.2W Surface Mount Flat Lead Fast Switching Schottky Barrier Diode

SOD-323F





Dimensions in inches and (millimeters)

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

Maximum Ratings and Electrical Characteristics

Rating at 25°Cambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	Pd	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 @ IF=200mA	VF		1.0	V
	BAT42WS @ IF=10mA			0.4	
	BAT42WS @ IF=50mA			0.65	
	BAT43WS @ IF=200mA			1.0	
	BAT43WS @ IF=2mA		0.26	0.33	
	BAT43WS @ IF=15mA			0.45	
Junction Capacitance	VR=1, f=1.0MHz	Cj	7(Typ.)		pF
Reverse Recovery Time (Note 1)		trr	5(Typ.)		nS

Note: 1 Reverse Recovery Test Conditions: IF=IR=10mA, Irr=1mA, RL=100Ω.

RATINGS AND CHARACTERISTIC CURVES (BAT42WS / BAT43WS)

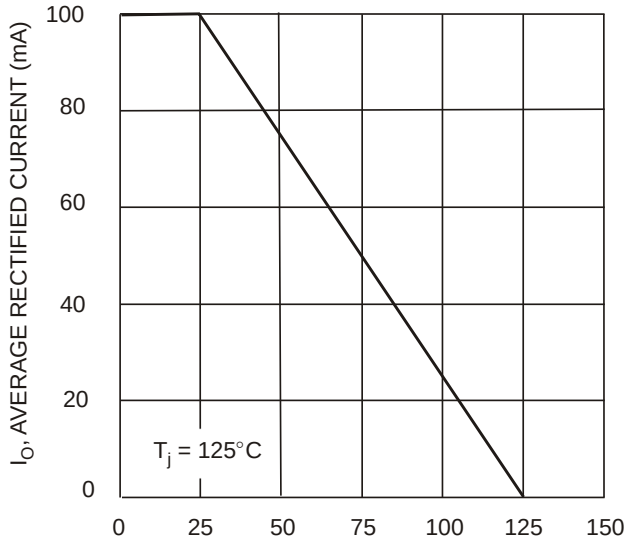


Fig. 1 Forward Current Derating Curve

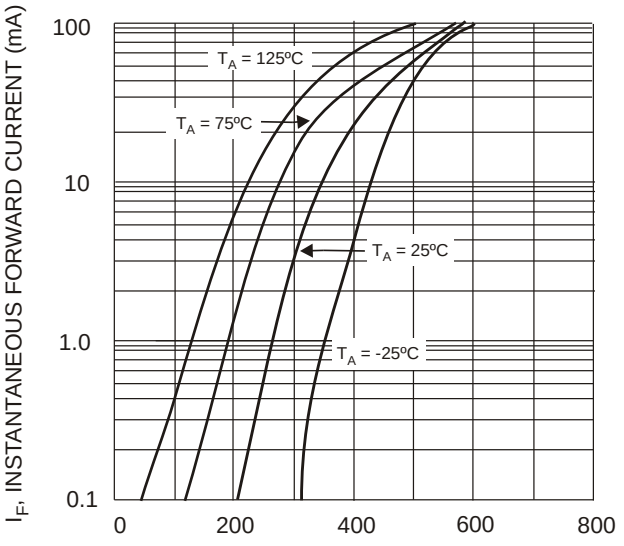


Fig. 2 Typical Forward Characteristics

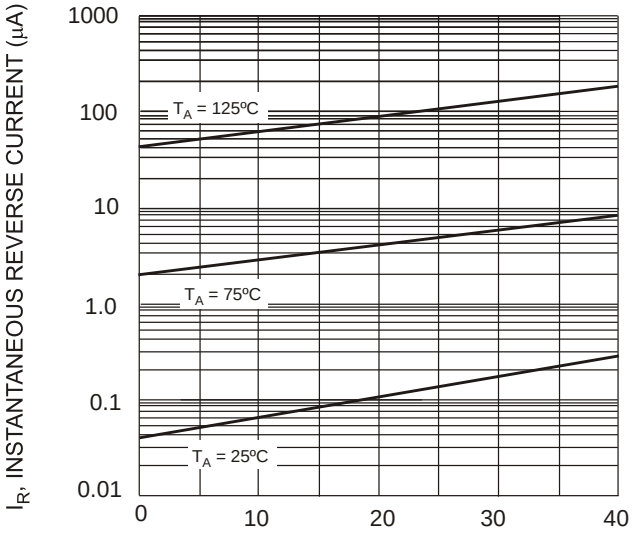


Fig. 3 Typical Reverse Characteristics

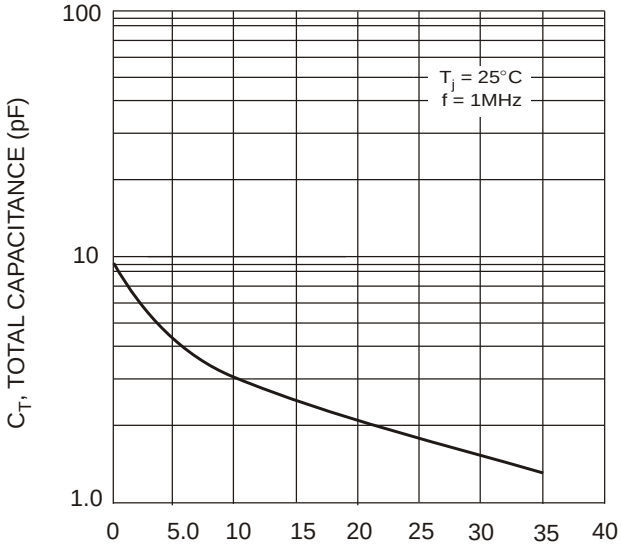


Fig. 4 Total Capacitance vs. Reverse Voltage