Data Sheet

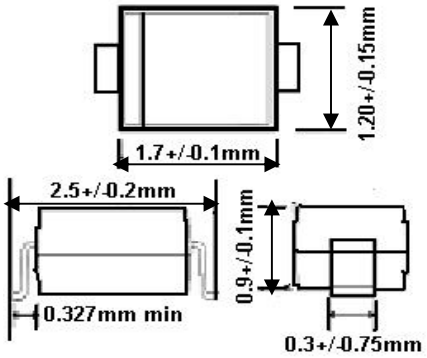
200 mA Surface Mounted Schottky Barrier Rectifiers

BAT42WS~43WS

Description

SOD-323

Mechanical Dimensions



FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited for Automatic Insertion
- Also Available in Lead Free Version

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25℃

Parameter	Symbol	BAT42WS/BAT43WS	Unit
Peak Repetitive Peak reverse voltage Working Peak DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current@t<1.0s	I_{FRM}	500	mA
Peak forward surge current @<10ms	I_{FSM}	4.0	A
Power Dissipation	Pd	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	K/W
Storage temperature	T_{STG}	-55~+125	℃

Electrical Ratings @T_A=25℃

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage		$V_{(BR)R}$	30			V	IR=100μA
Forward voltage	All Types	V_F			1.0	V	I_F=200mA
	BAT42W	V_F			0.4	V	I_F=10mA
	BAT42W	V_F			0.65	V	I_F=50mA
	BAT43W	V_F	0.26		0.33	V	I_F=2mA
	BAT43W	V_F			0.45	V	I_F=15mA
Reverse current		I_R			0.5	μA	V_R=25V
Capacitance between terminals		C_T			10	pF	V_R=1.0V,f=1.0MHz
Reverse Recovery Time		t_{rr}			5	ns	I_F=I_R=10mA Irr=0.1XI_R,R_L=100Ω

Typical Characteristics

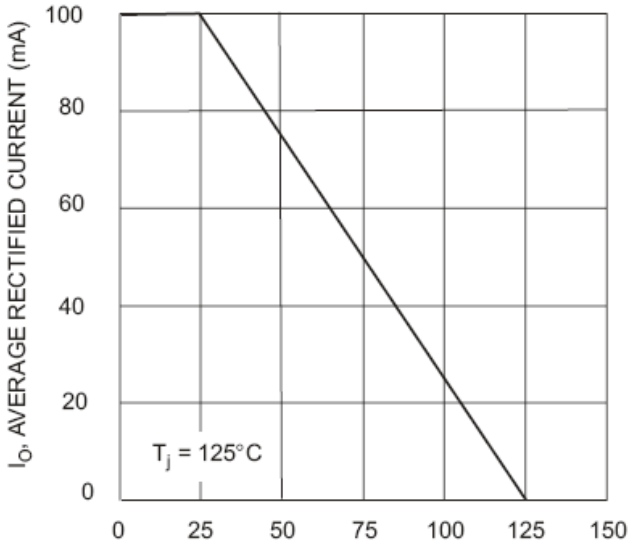


Fig. 1 Forward Current Derating Curve

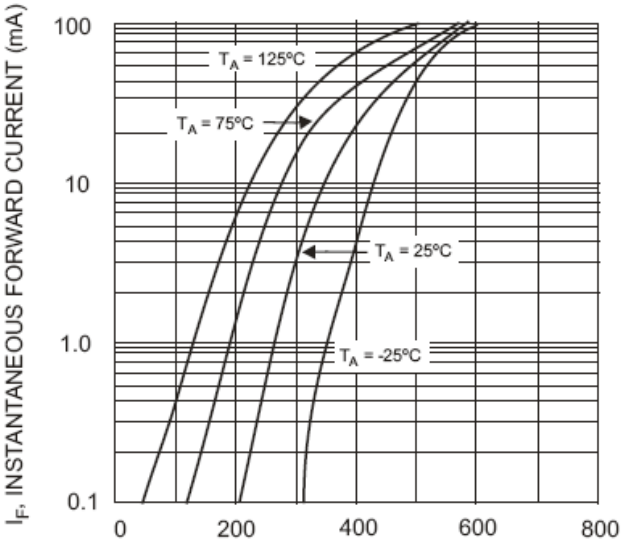


Fig. 2 Typical Forward Characteristics

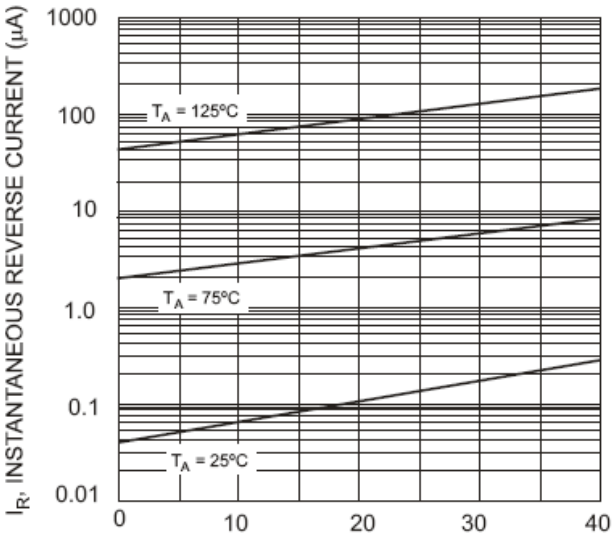


Fig. 3 Typical Reverse Characteristics

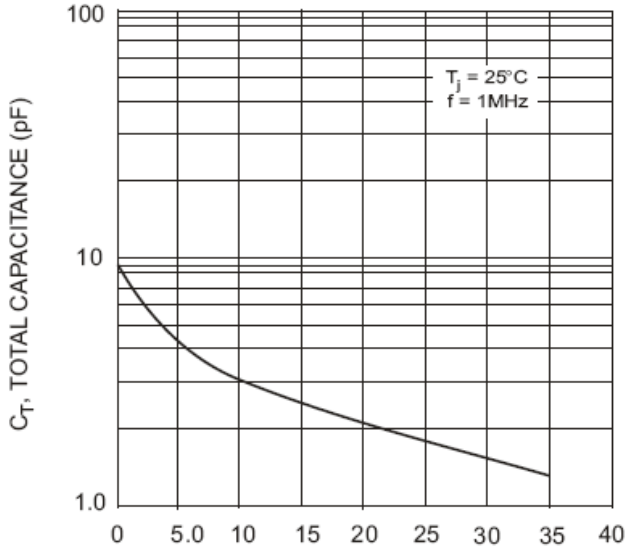


Fig. 4 Total Capacitance vs. Reverse Voltage