

Schottky Barrier Diode

BAT43WSG

Lead free product



FEATURES

- Low Forward drop voltage.
- Fast switching.
- Ultra-small surface mount package.
- Available in lead free version.

APPLICATIONS

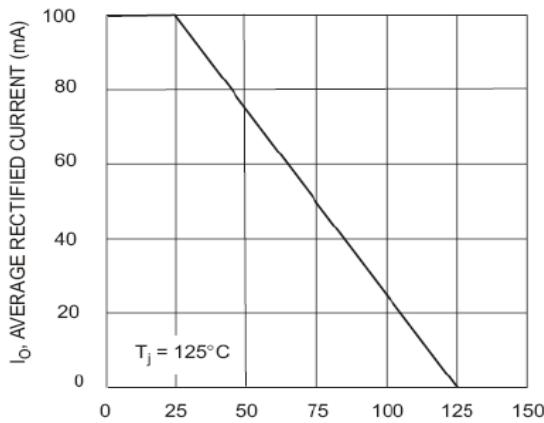
- Schottky barrier detector and switching diodes.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

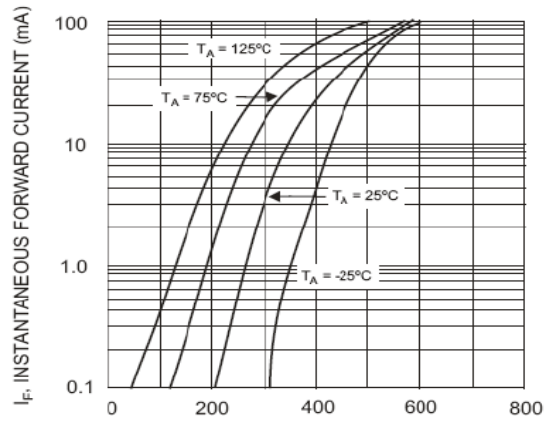
Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}	30	V
Working Peak	V_{RWM}		
DC Reverse Voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	21	V
Forward continuous Current	I_{FM}	200	mA
Repetitive peak Forward Current@t<1.0s	I_{FRM}	500	mA
Peak Forward Surge Current@<10ms	I_{FSM}	4.0	A
Power Dissipation	P_d	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	625	°C/W
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	-55-125	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

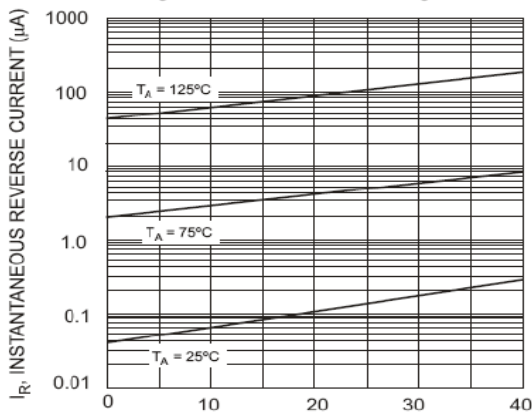
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$	30			V
Forward voltage	V_F	$I_F=200mA$			1.0	V
	V_F	$I_F=2mA$			0.33	V
	V_F	$I_F=15mA$			0.45	V
Reverse current	I_R	$V_R=25v$			0.5	μA
Reverse recovery time	t_{rr}	$I_F=10mA, I_R=10mA$ $R_L=100\Omega$			5.0	ns
Capacitance between terminals	C_T	$V_R=1.0V, f=1MHz$			10	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


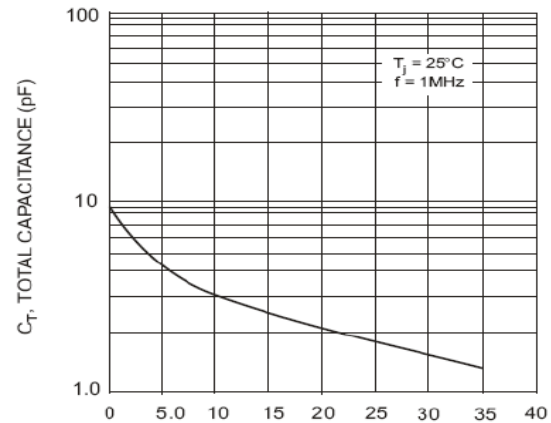
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



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