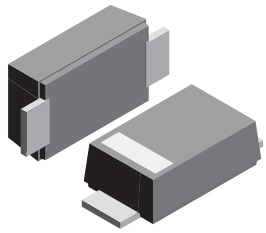
BAT54H

SURFACE MOUNT SCHOTTKY BARRIER DIODES



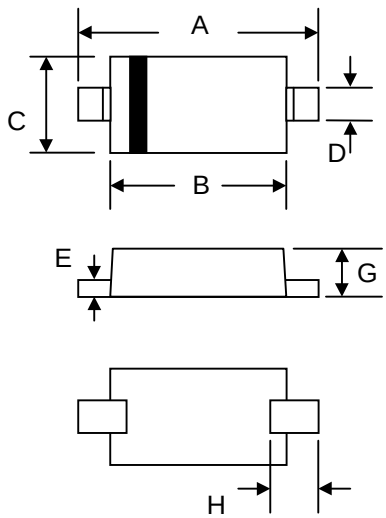
Features

- Extremely fast switching speed.
- Ultra-small surface mount package.
- PN junction guard ring for tr ansient and ESD protection.
- Schottky barrier detec tor and switching diodes.

Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: S 7

RoHS COMPLIANT



SOD-323		
Dim	**Min**	**Max**
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

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

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Forward continuous Current	I_F	200	mA
Repetitive peak Forward Current	I_{FRM}	300	mA
Forward Surge Current @t<1.0s	I_{FSM}	600	mA
Power Dissipation	P_d	200	mW
Thermal resistance,junction to ambient air	$R_{\theta jA}$	635	℃/W
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-65-150	℃

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=10μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA		0.22	0.24	V
	V_{F2}	I_F=1.0mA		0.29	0.32	V
	V_{F3}	I_F=10mA		0.35	0.40	V
	V_{F4}	I_F=30mA		0.41	0.5	V
	V_{F5}	I_F=100mA		0.52	0.8	V
Reverse leakage current	I_R	V_R=25V		0.5	2.0	μA
Reverse recovery time	t_{rr}	I_F=10mA,I_R=1.0mA			5.0	ns
Total capacitance	C_T	V_R=1.0V,f=1.0MHz		7.6	10	pF

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

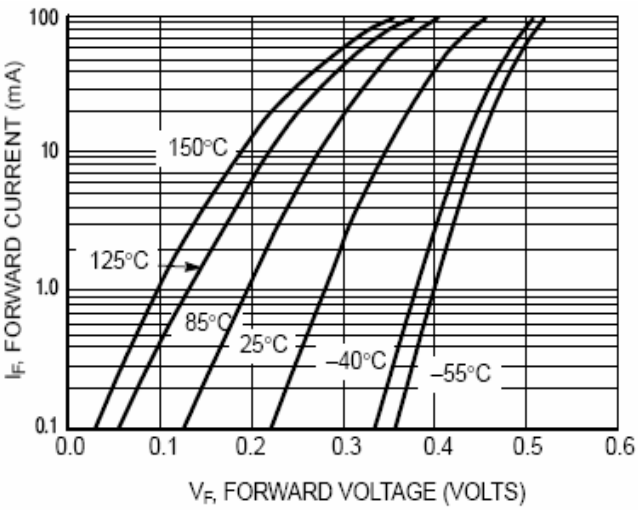


Figure 1. Forward Voltage

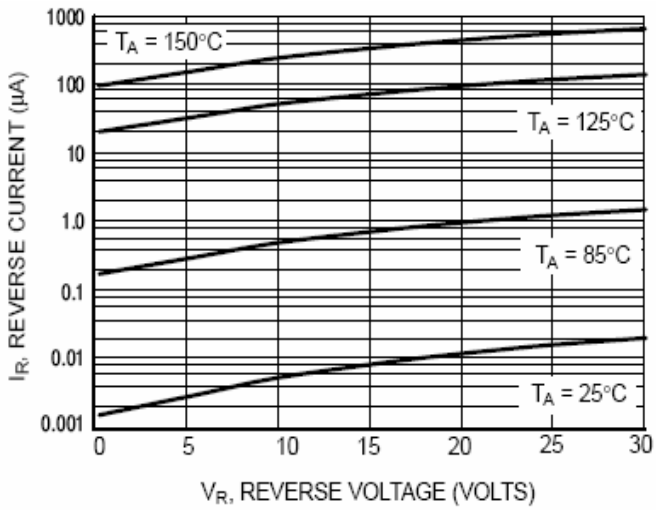


Figure 2. Leakage Current

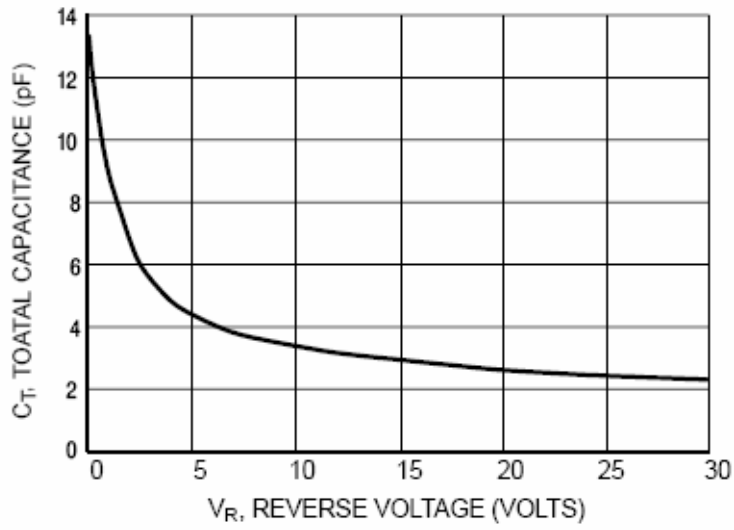


Figure 3. Total Capacitance