

Surface Mount Schottky Diodes

(Pb) Lead(Pb)-Free

Features:

- * Low forward voltage
- * Fast switching
- * Ultra-Small Surface Mount Package
- * PN Junction Guard Ring for Transient and ESD Protection

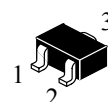
Mechanical Data:

- * Terminals: Solderable per MIL-STD-202, Method 208
- * Polarity: See Diagrams Page.2
- * Marking: See Diagrams Page.2
- * Weight: 0.002 grams (approx)

SCHOTTKY DIODES

200m AMPERES

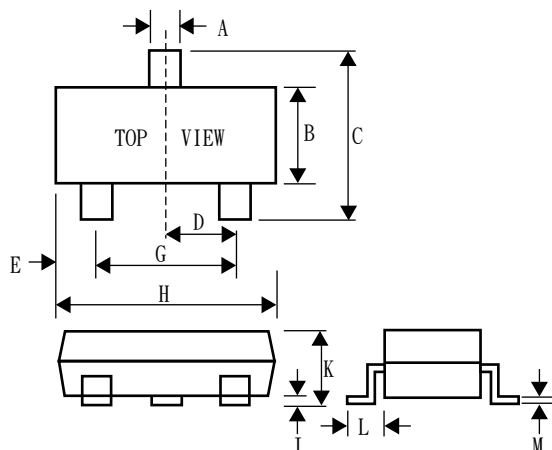
30 VOLTS



SOT-523(SC-75)

SOT-523 Outline Dimensions (SC-75)

Unit:mm



SC-75		
Dim	Min	Max
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25

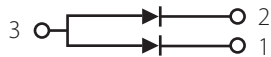
Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RRM}	30	V
DC Blocking Voltage	V_R		
Average Rectified Output Current	I_O	200	mA
Power Dissipation	P_d	150	mW
Storage Temperature Range	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage $I_R=100\mu\text{A}$	$V_{(BR)R}$	30		V
Forward Voltage $I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$	V_F		240 320 400 500 1000	V
Total Capacitance $V_R=1\text{V}$, $f=1.0\text{MHz}$	C_T		10	Pf
Reverse Current $V_R=25\text{V}$	I_R		2	μA
Reverse Recover Time $I_F=10\text{mA}$, $I_R=10\text{mA}\sim 1\text{mA}$, $R_L=100\Omega$	T_{rr}		5.0	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
BAT54T	L1	
BAT54AT	L2	
BAT54CT	L3	
BAT54ST	L4	

Electrical Characteristic curves($T_A=25^{\circ}\text{C}$)

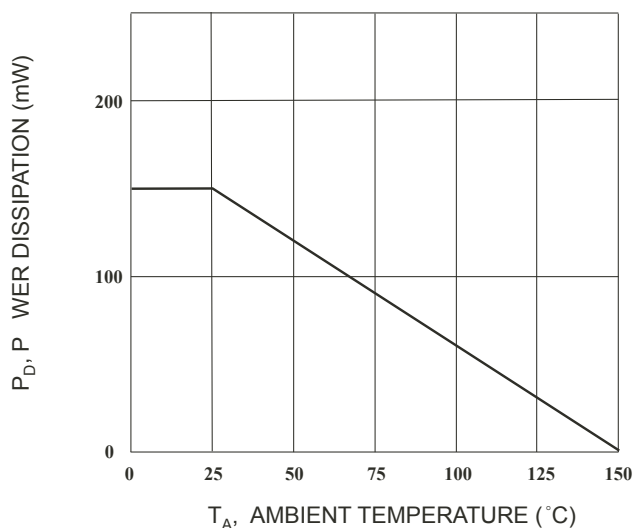


Fig. 1 Power Derating Curve

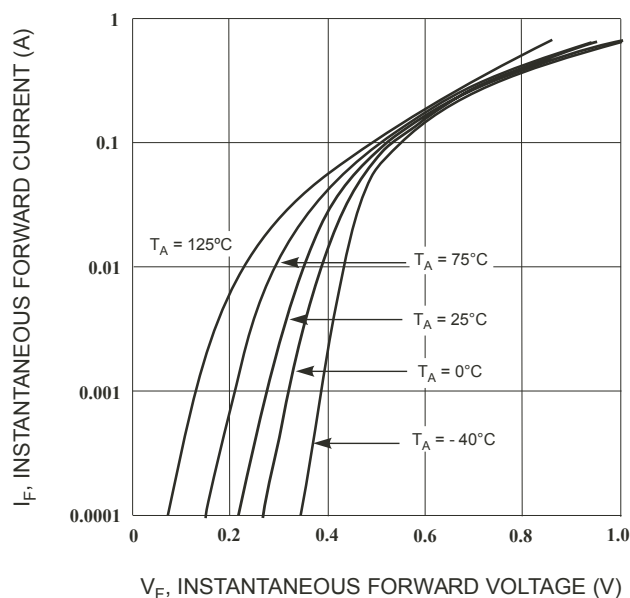


Fig. 2 Forward Characteristics

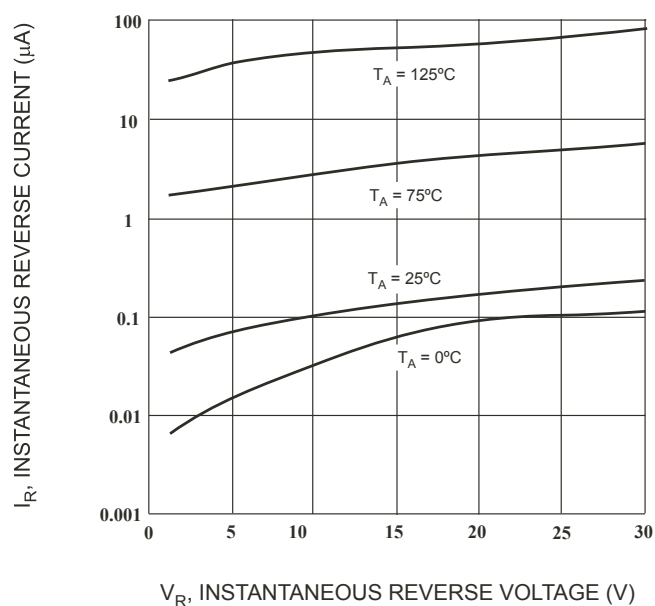


Fig. 3 Typical Reverse Characteristics

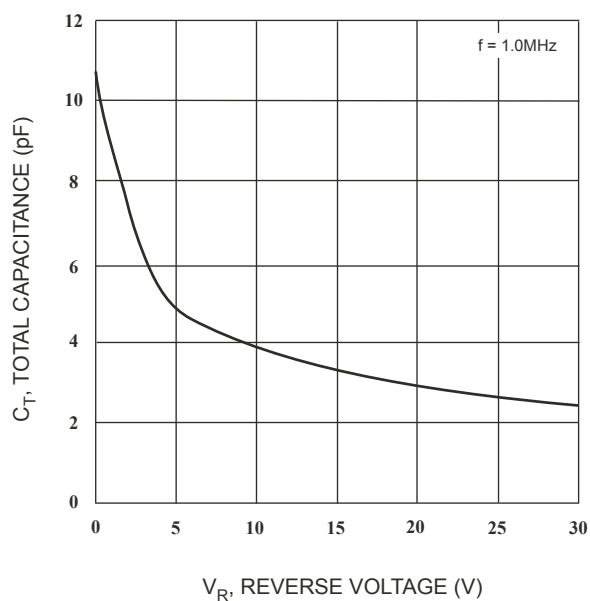


Fig. 4 Typical Capacitance vs. Reverse Voltage