

Surface Mount Schottky Diodes

(Pb) Lead(Pb)-Free

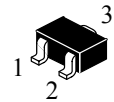
Features:

- * Low forward voltage
- * Fast switching
- * Ultra-Small Surface Mount Package

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)

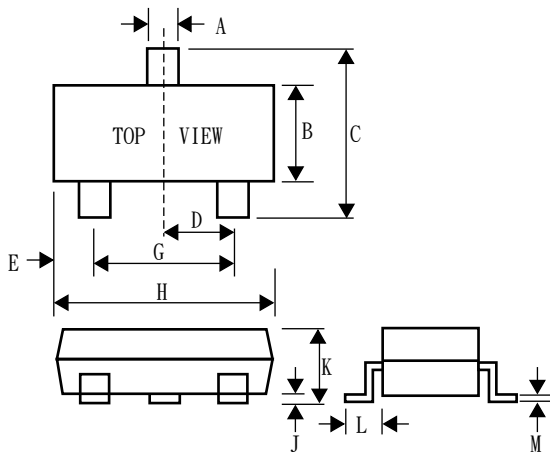
SCHOTTKY DIODES
200m AMPERES
40 VOLTS



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


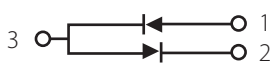
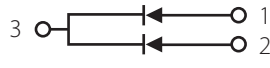
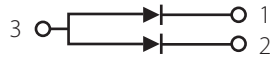
Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RRM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Power Dissipation	P_d	150	mW
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 $I_R=10\mu\text{A}$	$V_{(BR)R}$	40		V
Forward Voltage $I_F=1\text{mA}$ $I_F=40\text{mA}$	V_F		0.38 1.00	V
Total Capacitance $V_R=0\text{V}$, $f=1.0\text{MHz}$	C_T		5.0	Pf
Reverse Current $V_R=30\text{V}$	I_R		0.2	μA
Reverse Recover Time $I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$	T_{rr}		5.0	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
BAS40T	43h	
BAS40-04T	44	
BAS40-05T	45	
BAS40-06T	46	

Electrical Characteristic curves(Ta=25°C)

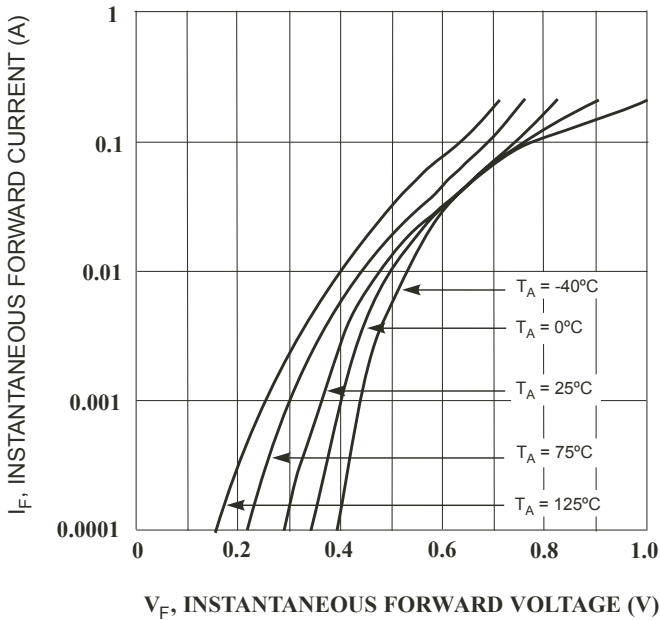


Fig. 1 Typical Forward Voltage

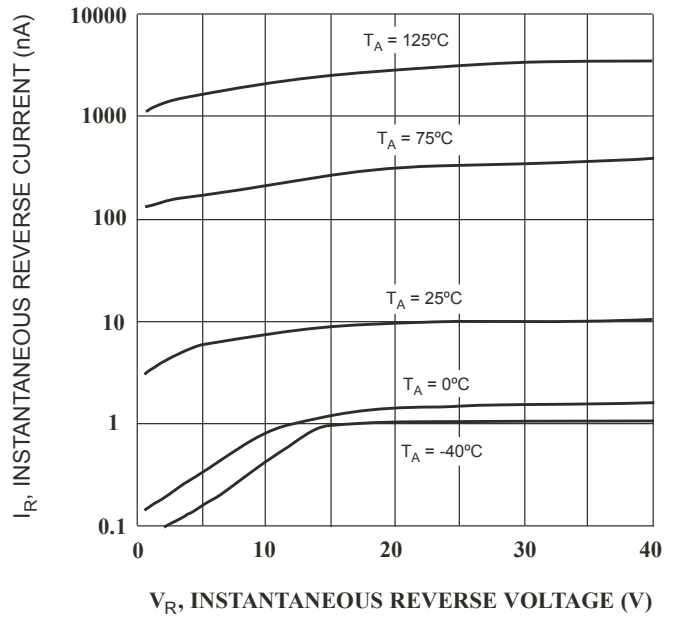


Fig. 2 Typical Reverse Characteristics

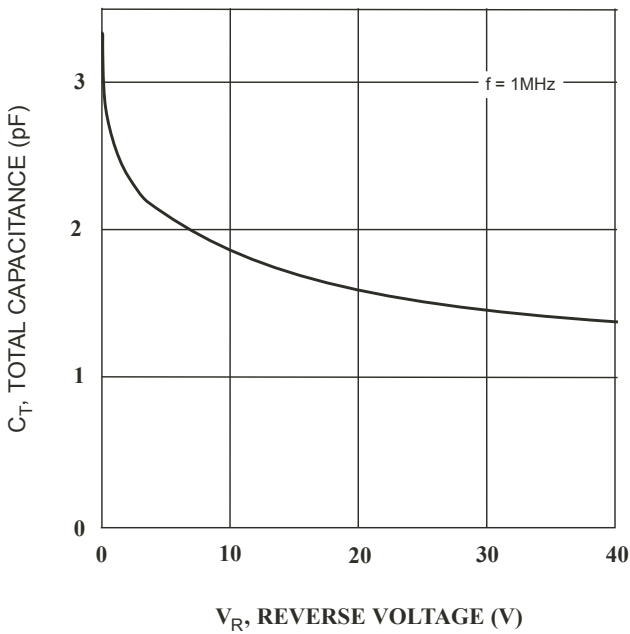


Fig. 3 Typical Capacitance

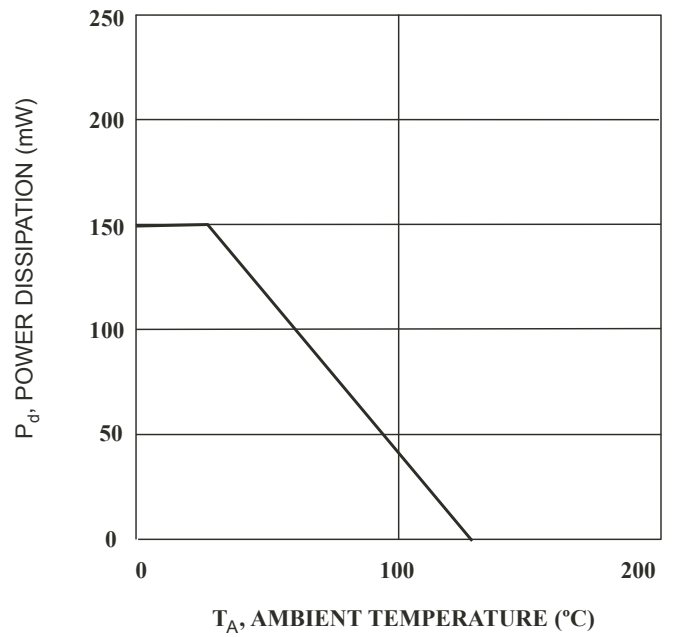


Fig. 4 Power Derating Curve, Total Package