

## Surface Mount Schottky Diodes

**(Pb)** Lead(Pb)-Free

### Features:

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

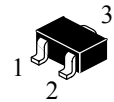
### Mechanical Data:

- \* 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**

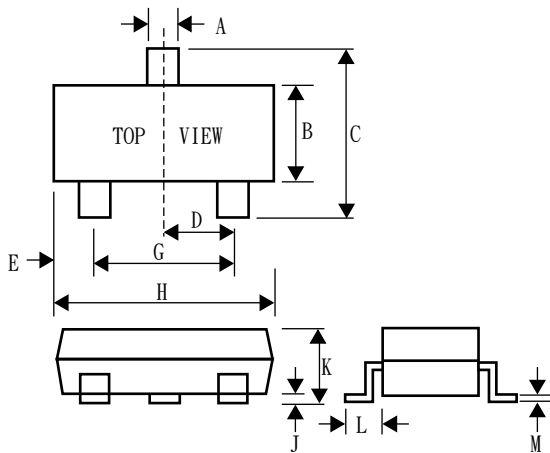
**40 VOLTS**



**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


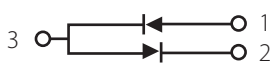
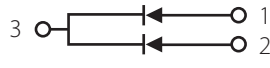
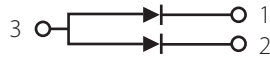
**Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  Unless otherwise noted)

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	$\mu\text{A}$
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)

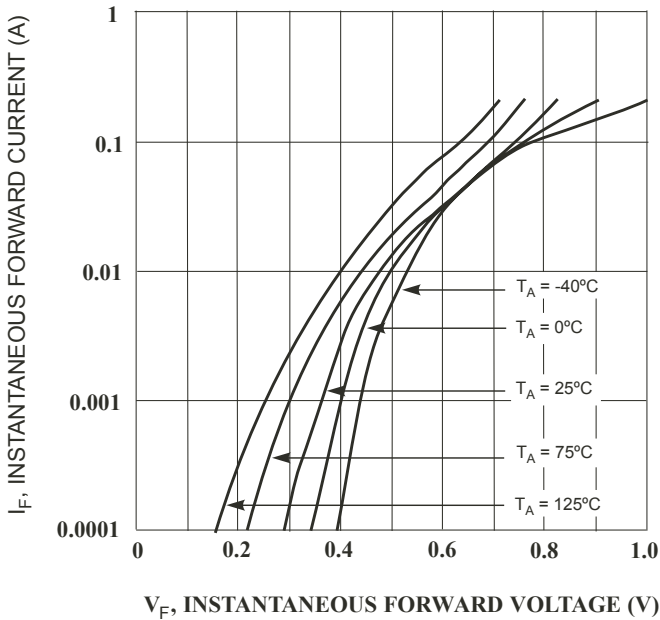


Fig. 1 Typical Forward Voltage

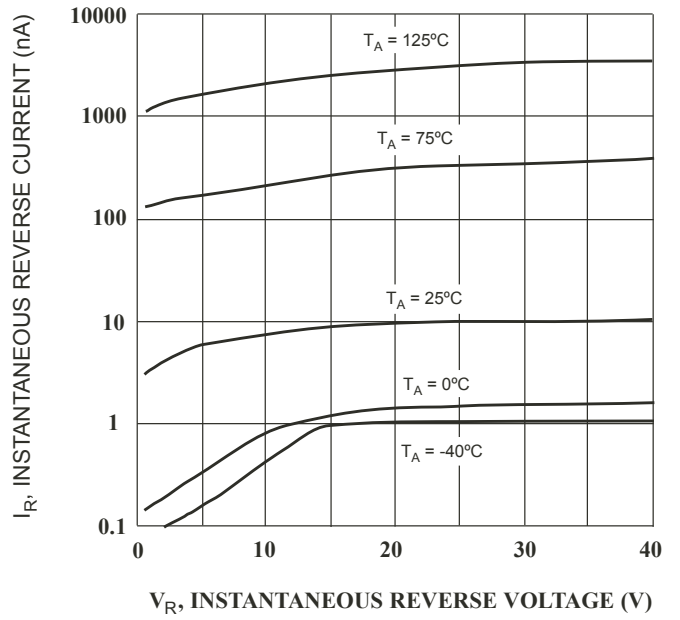


Fig. 2 Typical Reverse Characteristics

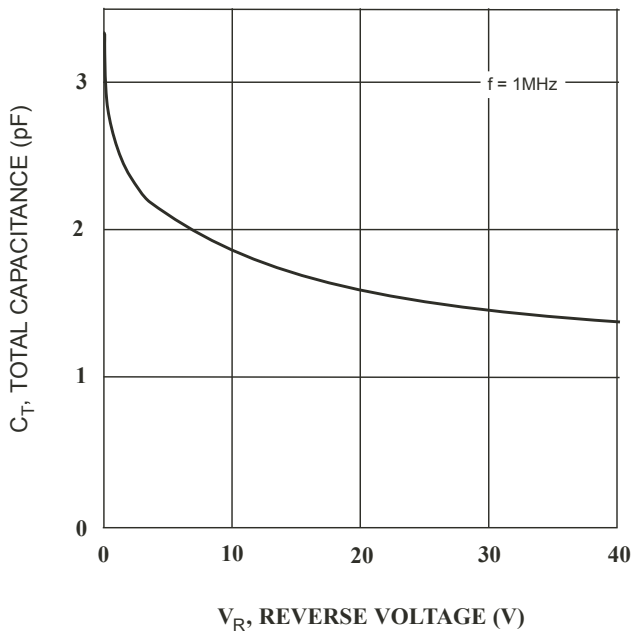


Fig. 3 Typical Capacitance

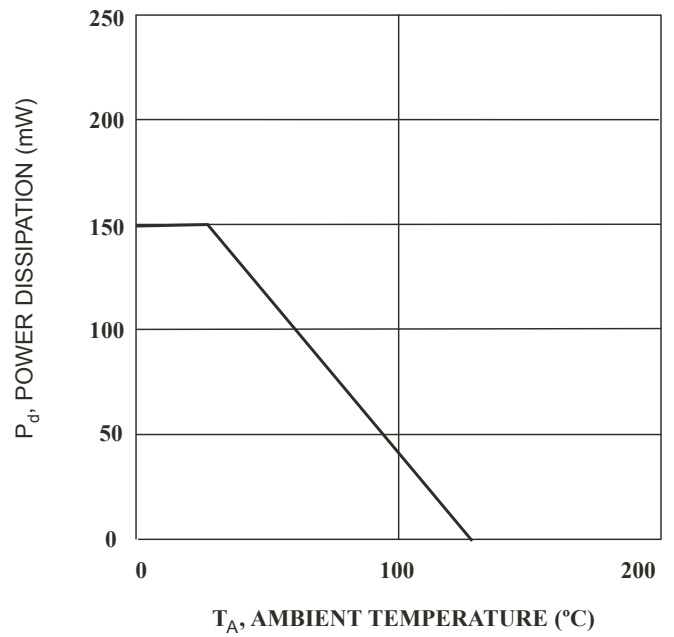


Fig. 4 Power Derating Curve, Total Package