

### Surface Mount Switching Diodes

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

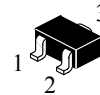
#### Features:

- \* Ultra-Small Surface Mount Package
- \* Fast switching Speed
- \* For General Purpose Switching Applications
- \* High Conductance

#### 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)

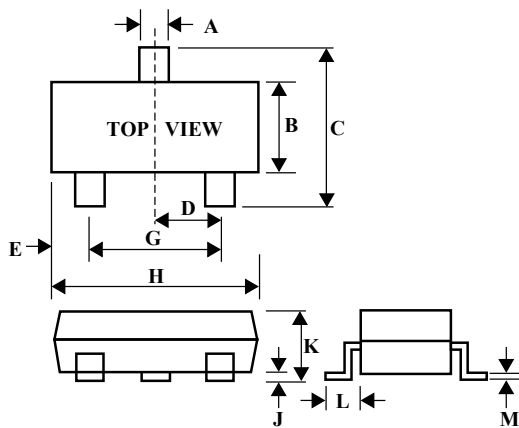
**SWITCHING DIODES**  
**75 mAMPERES**  
**85 VOLTS**



**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 Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RRM}$ $V_R$	85	V
Forward Continuous Current	$I_O$	75	mA
Forward Power Dissipation	$P_d$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to + 150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage $I_R=1\mu\text{A}$	$V_{(BR)R}$	85	-	V
Forward Voltage $I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	$V_F$	-	715 855 1000 1250	mV
Total Capacitance $V_R=0\text{V}$ , $f=1.0\text{MHz}$	$C_T$	-	1.5	Pf
Reverse Current $V_R=75\text{V}$ $V_R=25\text{V}$	$I_R$	-	2.0 0.03	$\mu\text{A}$
Reverse Recover Time $I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \times I_R$ , $R_L=100\Omega$	$T_{rr}$	-	4.0	nS

**Device Marking**

Item	Marking	Equivalent Circuit diagram
BAV99T	JE	
BAW56T	JD	

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

