

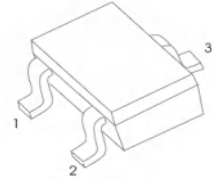


### BAV56T/BAV70T/BAV99T Plastic-Encapsulate Diodes

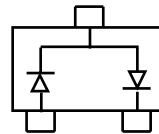
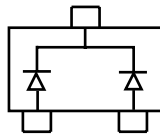
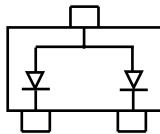
SWITCHING DIODE

#### FEATURES

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



SOT-523



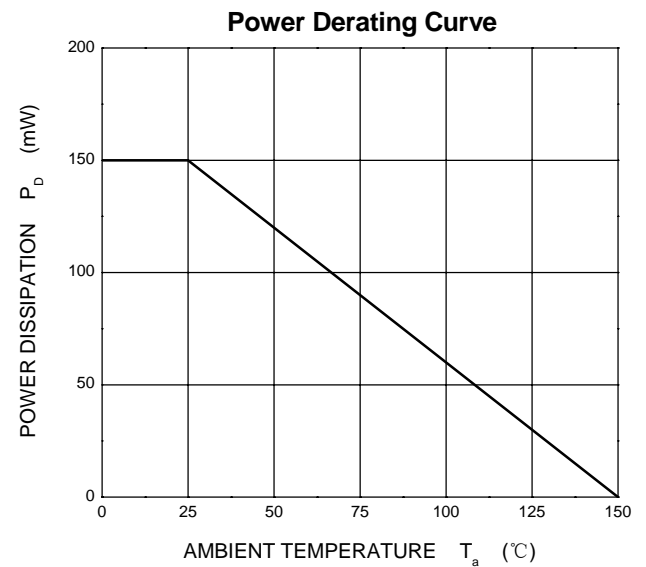
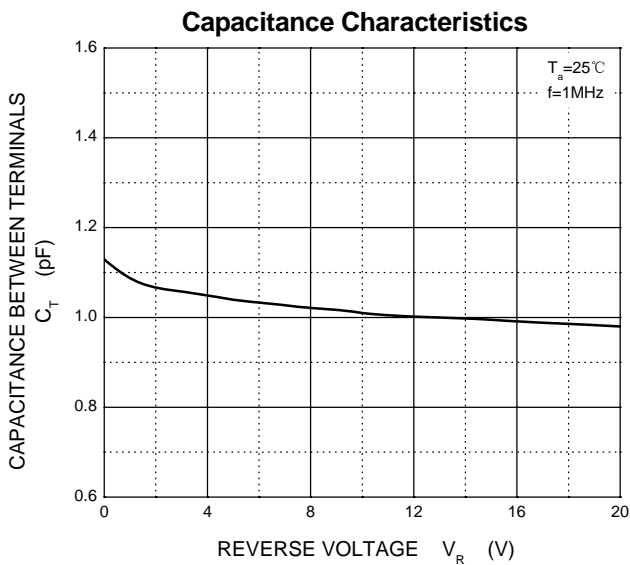
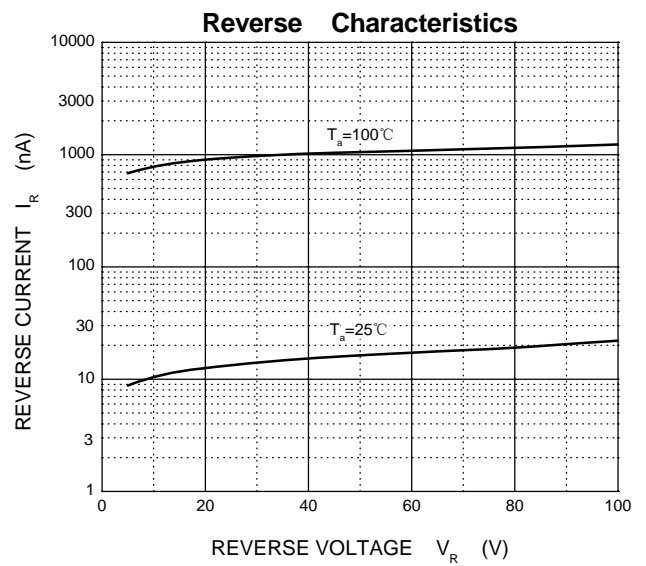
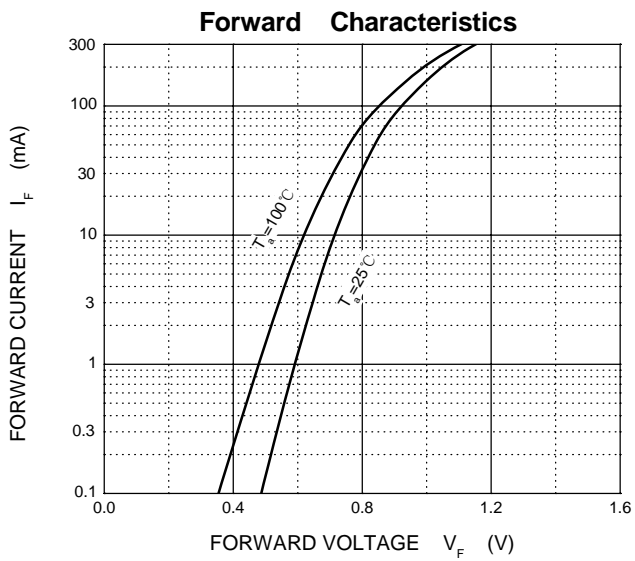
BAV56T Marking: A1    BAV70T Marking: A4    BAV99T Marking: A7

#### Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Reverse voltage	$V_R$	85	V
Forward current	$I_o$	75	mA
Forward power dissipation	$P_D$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~+150	°C

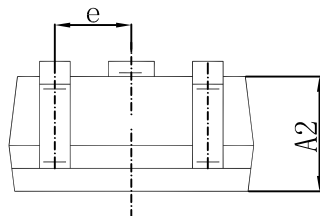
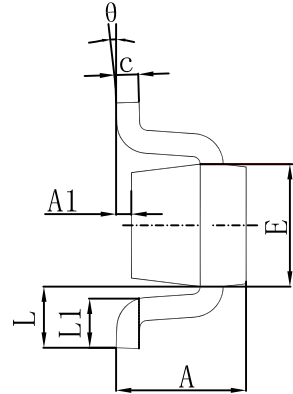
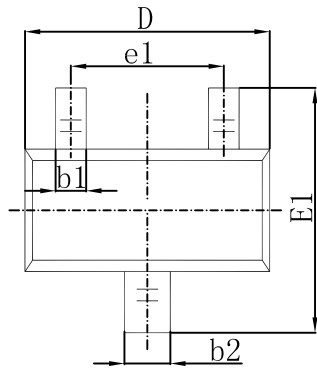
#### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\mu A$	85		V
Reverse voltage leakage current	$I_{R1}$	$V_R=75V$		2	$\mu A$
	$I_{R2}$	$V_R=25V$		0.03	$\mu A$
Forward voltage	$V_F$	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$		715 855 1000 1250	mV
Diode capacitance	$C_D$	$V_R=0$ $f=1MHz$		1.5	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4	ns



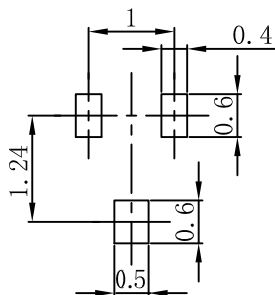


## SOT-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

## SOT-523 Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.