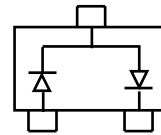
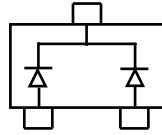
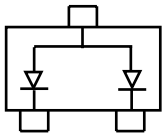
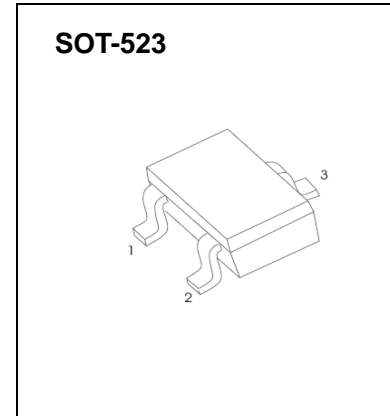


## Plastic-Encapsulate Diodes

SWITCHING DIODE

### FEATURES

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



BAW56T Marking: A1

BAV70T Marking: A4

BAV99T Marking: A7

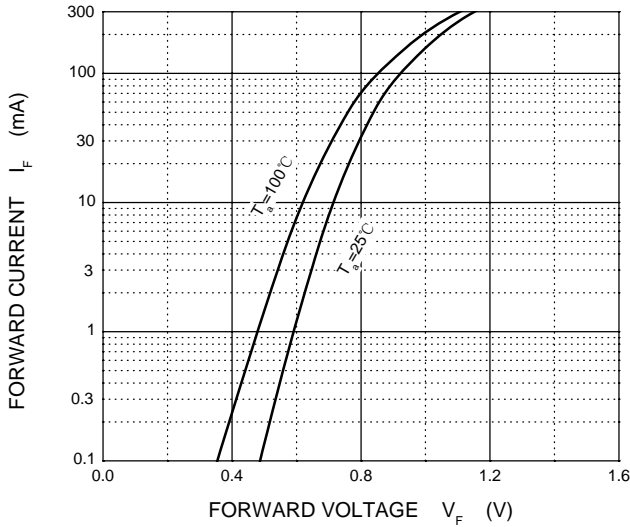
### Maximum Ratings @Ta=25°C

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

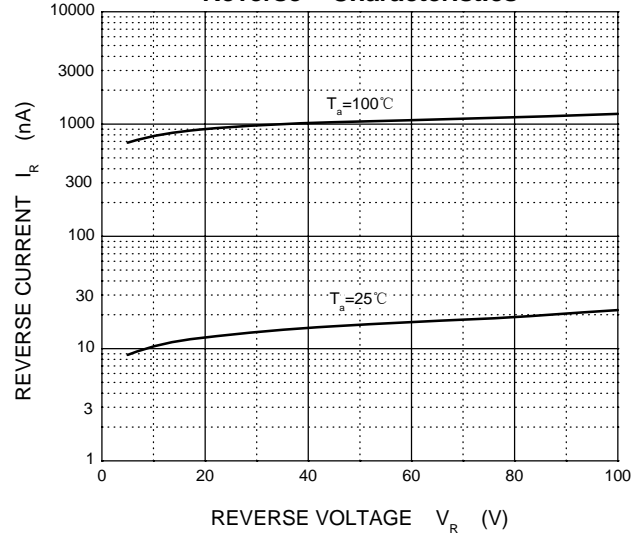
### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

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

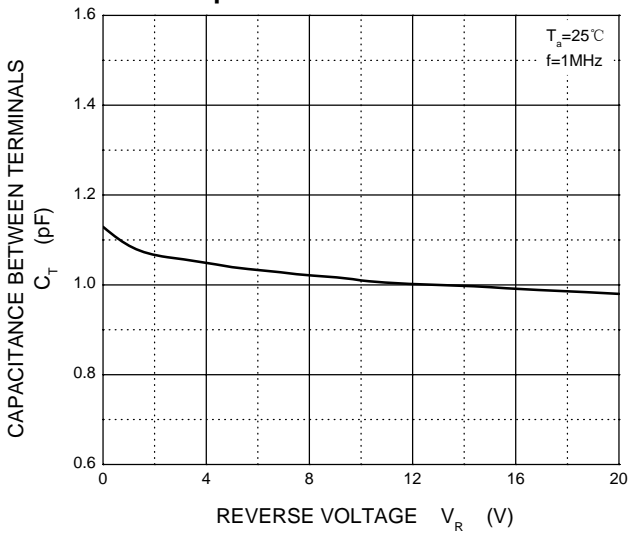
**Forward Characteristics**



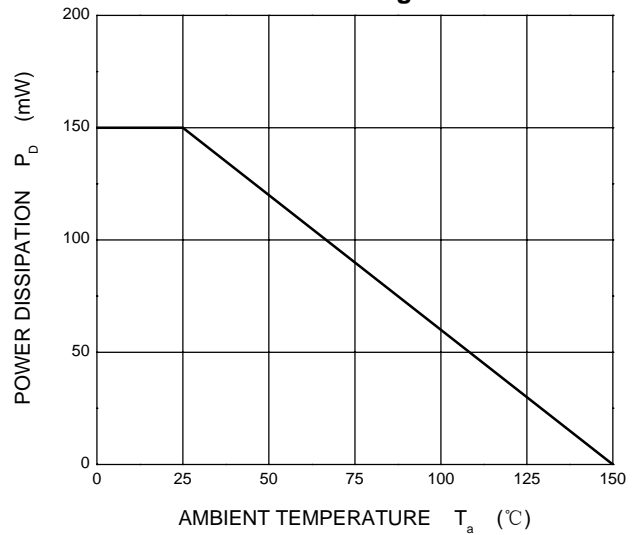
**Reverse Characteristics**



**Capacitance Characteristics**



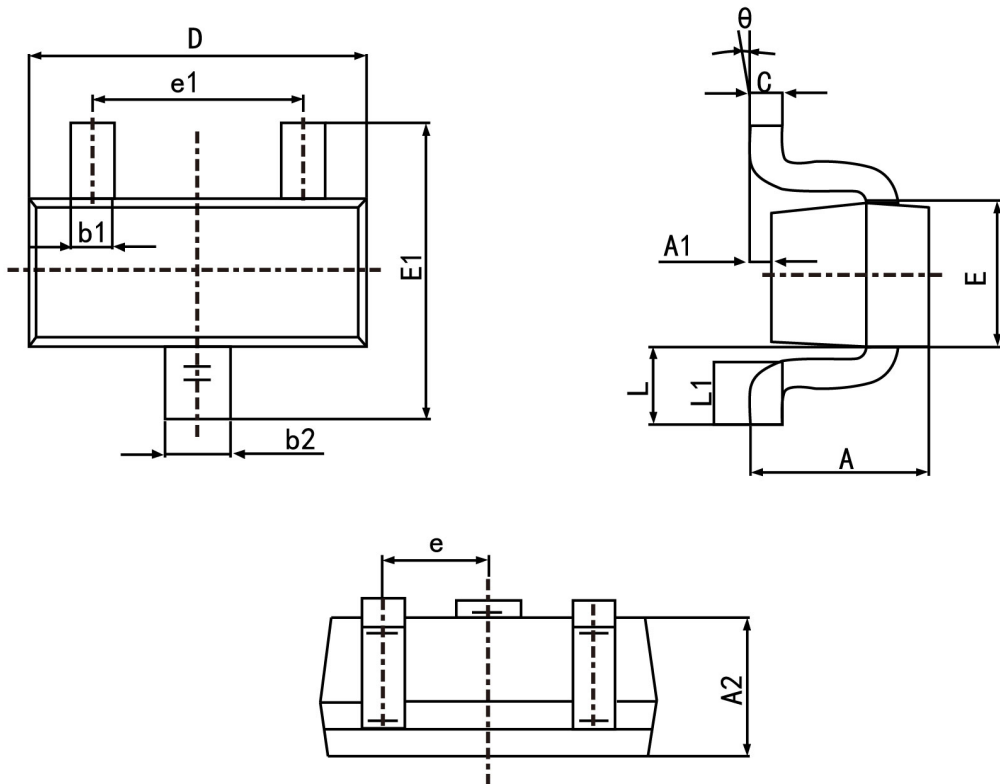
**Power Derating Curve**



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.700	0.900
A1	0.000	0.100
A2	0.700	0.800
b1	0.150	0.250
b2	0.250	0.350
c	0.100	0.200
D	1.500	1.700
E	0.700	0.900
E1	1.450	1.750
e	0.500	TYP.
e1	0.900	1.100
L	0.400 REF.	
L1	0.260	0.460
θ	0°	8°