

SOT-523 Plastic-Encapsulate DiodesBAW56T/BAV70T/BAV99T

Switching Diodes

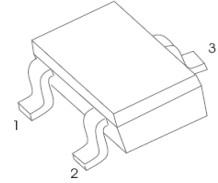
FEATURES

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

MARKING & Equivalent Circuit

BAW56T	BAV70T	BAV99T

SOT-523

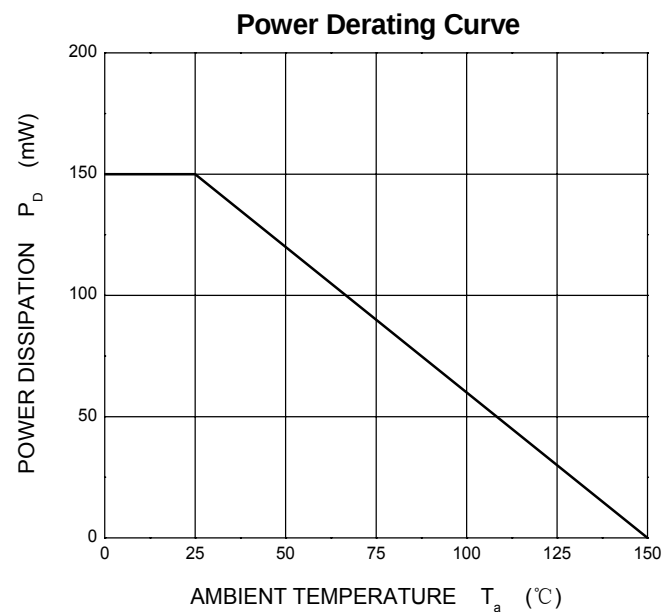
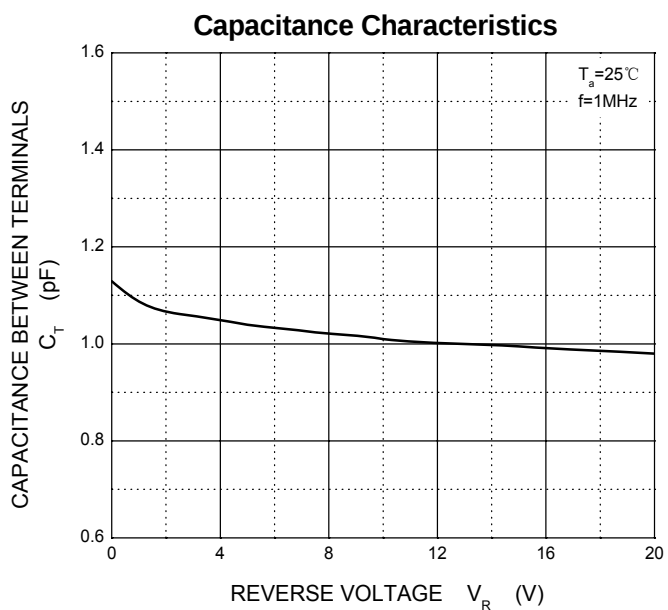
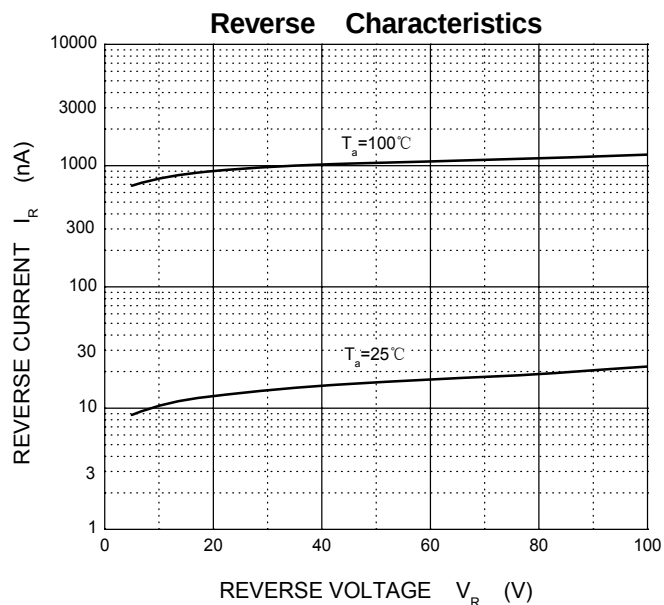
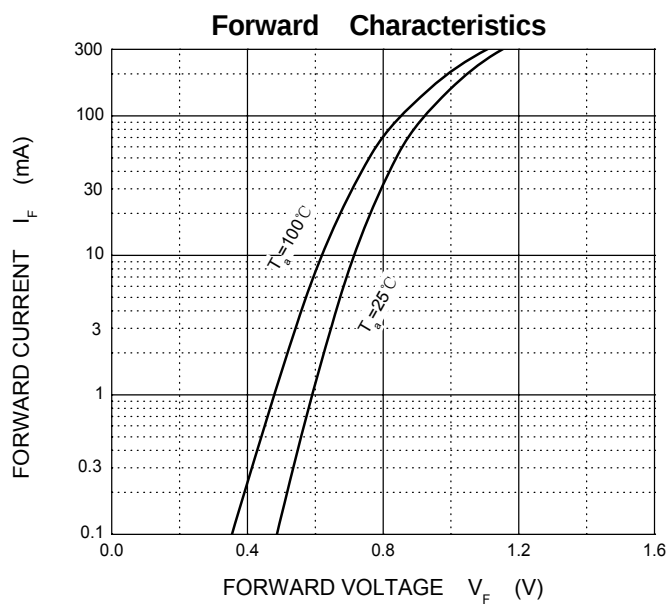
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Limit	Unit
Reverse Voltage	V _R	85	V
Forward Current	I _F	75	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	2.0	A
Power Dissipation	P _D	150	mW
Thermal Resistance Junction to Ambient	R _{θJA}	833	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{STG}	-55~+150	°C

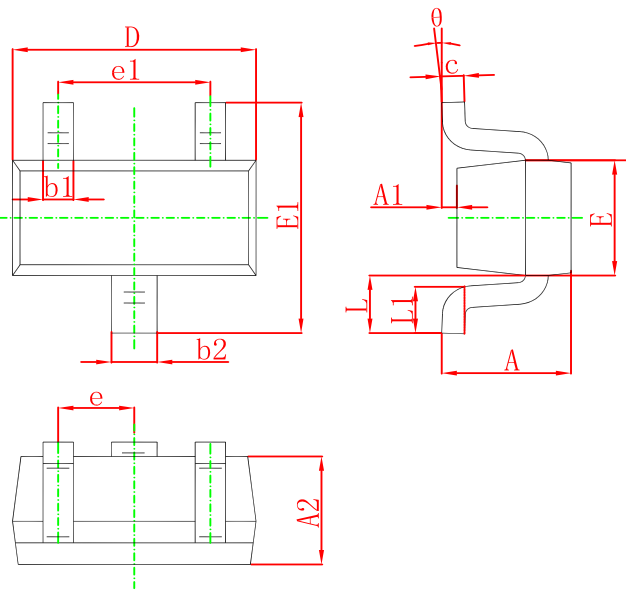
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	V _(BR)	I _R =1μA	85		V
Reverse voltage leakage current	I _{R1}	V _R =75V		2	μA
	I _{R2}	V _R =25V		0.03	μA
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×I _R , R _L =100Ω		4	ns

Typical Characteristics

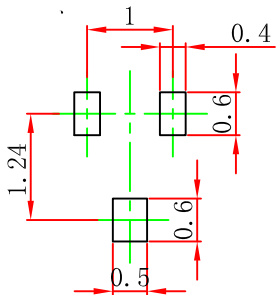


Package Outline Dimensions (SOT-523)



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°

Suggested Pad Layout (SOT-523)



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05mm.
 3. The pad layout is for reference purposes only.