

## BAV99W

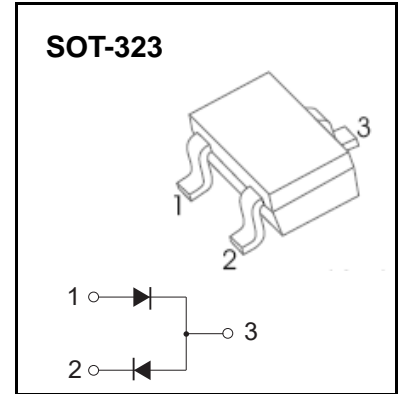
## SOT-323 Plastic-Encapsulate Diodes

### SWITCHING DIODE

### FEATURES

- For high-speed switching applications
- Connected in series

### MARKING: A7



### Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Reverse Voltage	$V_R$	75	V
Forward Current	$I_F$	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu A$	75		V
Reverse voltage leakage current	$I_{R1}$	$V_R = 75V$		2.5	$\mu A$
	$I_{R2}$	$V_R = 25V$		25	nA
Forward voltage	$V_F$	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		715 855 1000 1250	mV
Diode capacitance	$C_D$	$V_R = 0$ $f = 1MHz$		2	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		4	ns

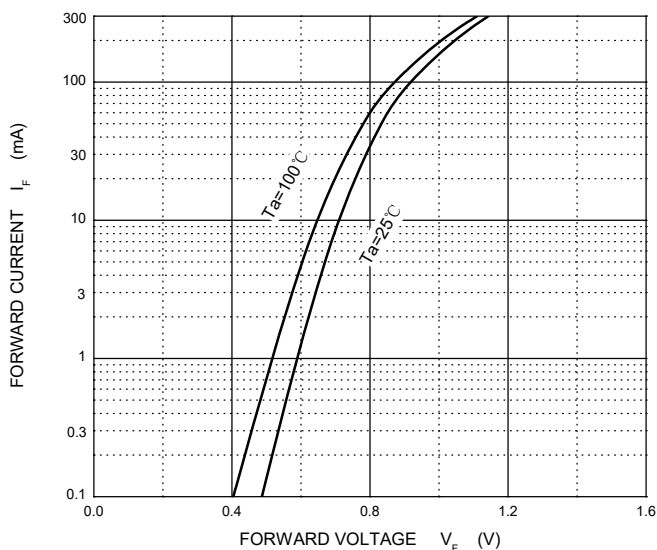


## Typical Characteristics

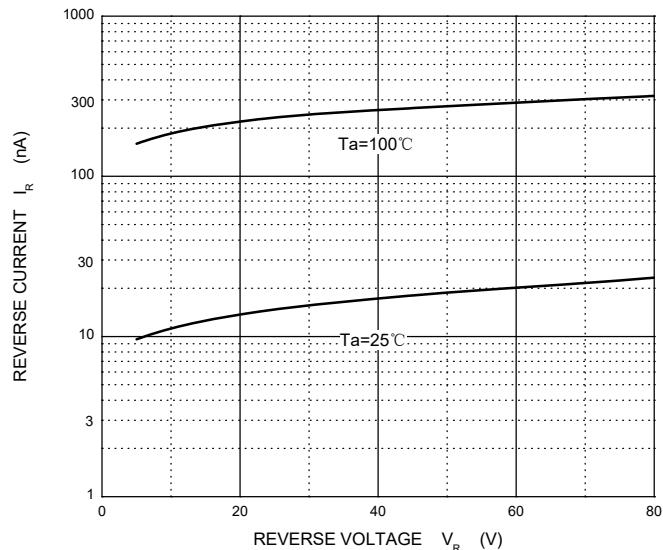
# BAV99W

SWITCHING DIODE

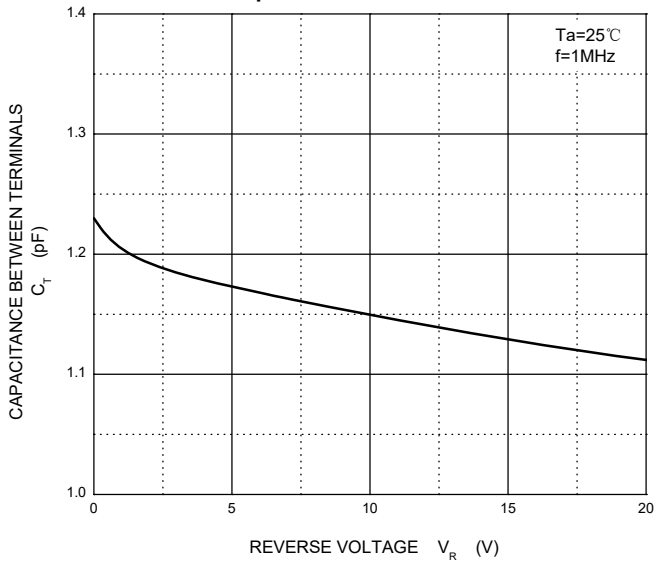
### Forward Characteristics



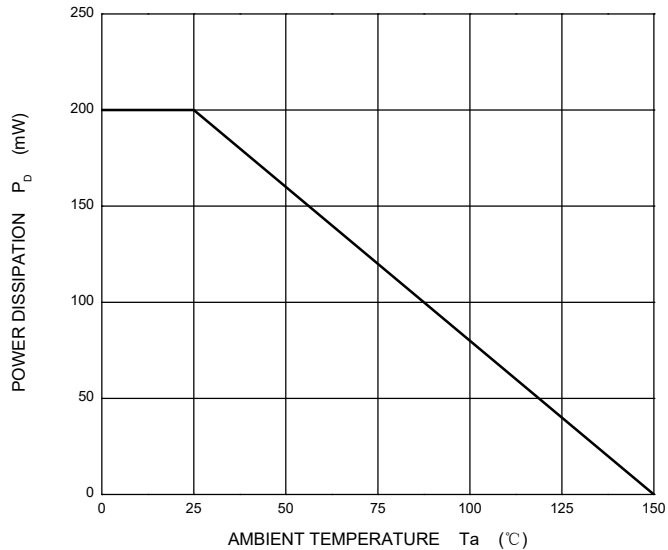
### Reverse Characteristics



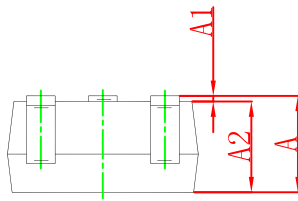
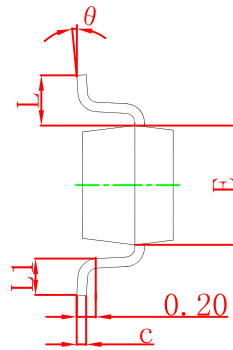
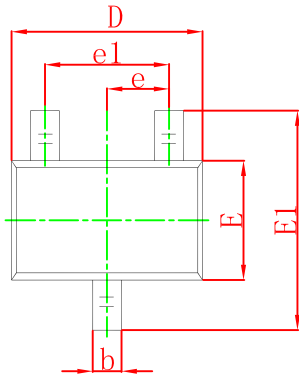
### Capacitance Characteristics



### Power Derating Curve

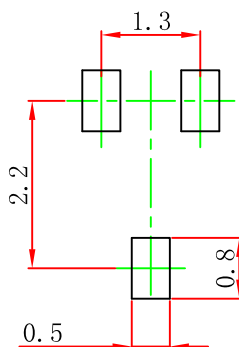


## SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

## SOT-323 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.