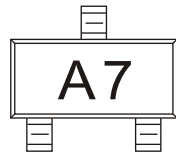


Switching Diode

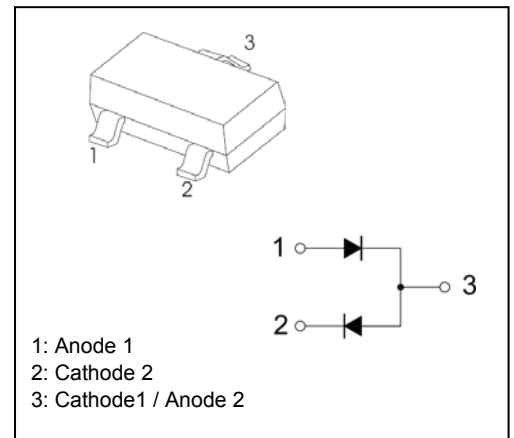
FEATURES

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

Marking



BAV99



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Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Reverse Voltage	V_R	70	V
Forward Current (Note 1)	I_F	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms (Note 1) (Note 3)	I_{FSM}	2.0	A
Power Dissipation (Note 2)	P_D	225	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{STG}	-55~+150	°C

Electrical Characteristics @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	V_R	70			V	$I_R=100\mu A$
Forward voltage	V_{F1}			0.715	V	$I_F=1mA$
	V_{F2}			0.855	V	$I_F=10mA$
	V_{F3}			1	V	$I_F=50mA$
	V_{F4}			1.25	V	$I_F=150mA$
Reverse current	I_R			2.5	μA	$V_R=70V$
Capacitance between terminals	C_T			1.5	pF	$V_R=0, f=1MHz$
Reverse recovery time	t_{rr}			6	ns	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

Note: 1: Unit rating. Total rating = Unit rating \times 70 %

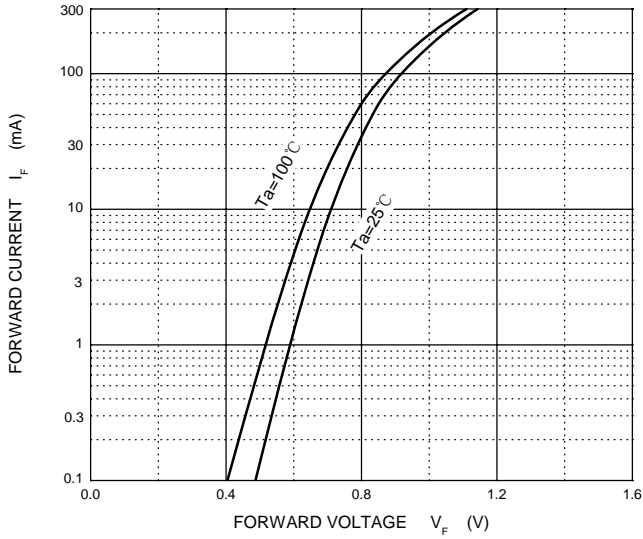
2: Device mounted on a 25.4 mm \times 25.4 mm \times 1.6 mm FR-4 glass epoxy board (Cu pad: 0.42 mm² \times 3)

3: Measured with a 8.3 ms pulse.

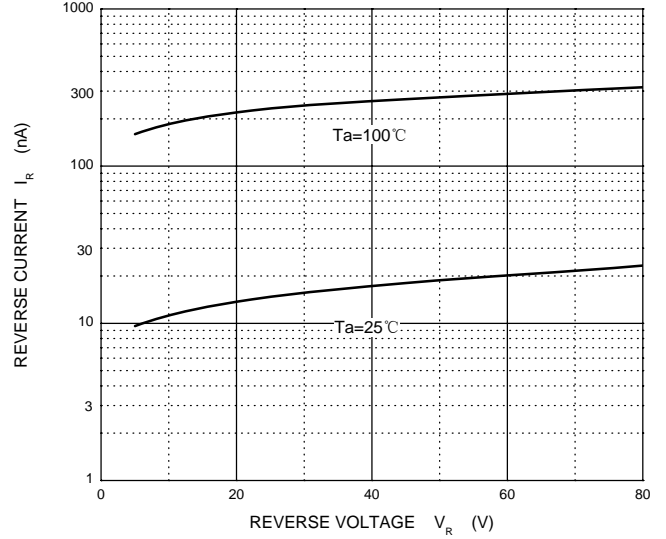


Typical Characteristics

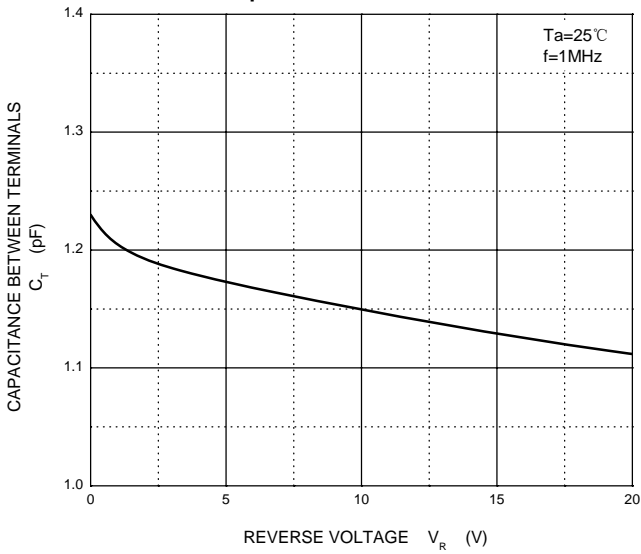
Forward Characteristics



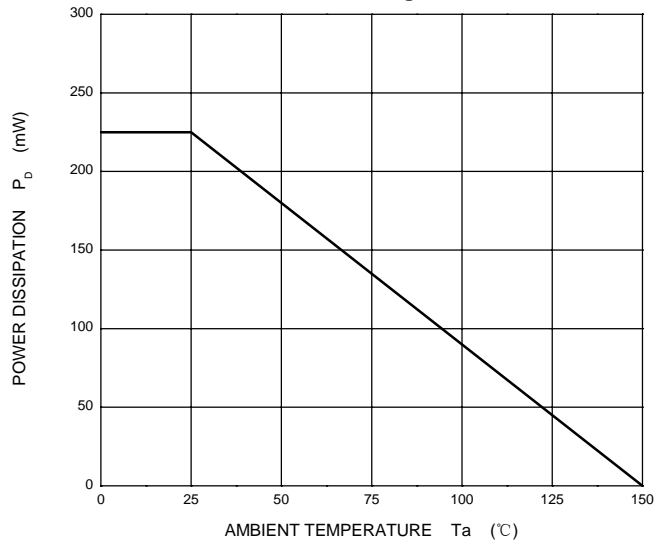
Reverse Characteristics



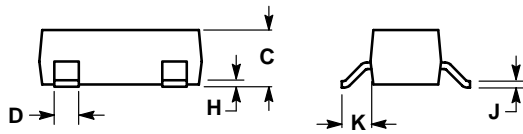
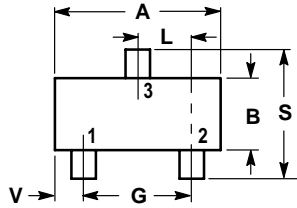
Capacitance Characteristics



Power Derating Curve



SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. ANODE
 2. NO CONNECTION
 3. CATHODE

