WEITRON

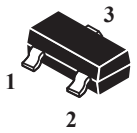
BAV74

Surface Mount Switching Diode

Lead(Pb)-Free

SWITCHING DIODE
200m AMPERES
50 VOLTS

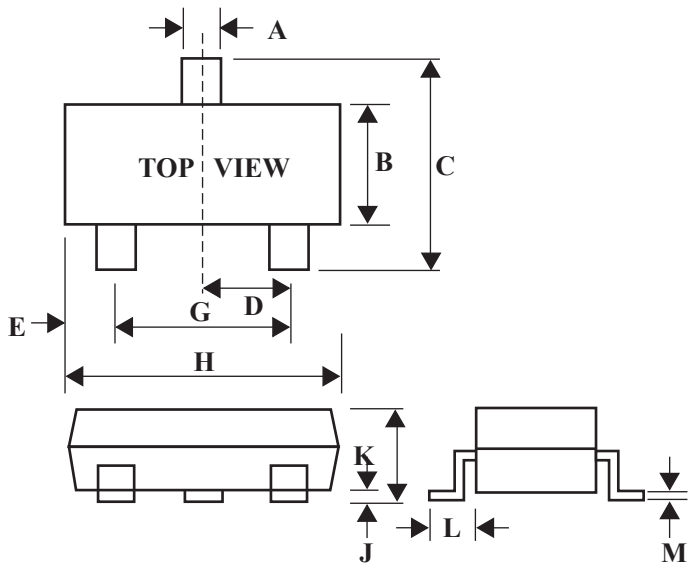
Features:
*Low Current Leakage
*Low Forward Voltage
*Reverse Recover Time Trr ≤ 4ns
*Small Outline Surface Mount SOT-23 Package



SOT-23

SOT-23 Outline Dimensions

Uint:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25

Maximum Ratings

Characteristic	Symbol	Value	Unit
Reverse Voltage	V_R	50	Vdc
Forward Current	I_F	200	mAdc
Peak Forward Surge Current	I_{FM}	500	mAdc

Thermal Characteristics

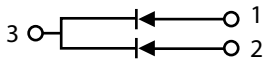
Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board[1] T_A=25˚C Derate Above 25˚C	P_D	 225 1.8	 mW mW/˚C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	˚C/W
Total Device Dissipation Alumina Substrate[2] T_A=25˚C Derate Above 25˚C	P_D	 300 2.4	 mW mW/˚C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	˚C/W
Junction and Storage Temperature	T_J, T_{stg}	-55 to + 150	˚C

1. FR-5=1.0x0.75x0.062 in.
2. Alumina=0.4x0.3x0.024 in 99.5% Alumina.

Electrical Characteristics (T_A=25˚C Unless Otherwise Note) (Each Diode)

Characteristic	Symbol	Min	Max	Unit
Off Characteristics				
Reverse Breakdown Voltage I_{BR} = 5.0 µAdc	V_{BR}	50	-	Vdc
Reverse Voltage Leakage Current V_R=50V, T_J=125˚C V_R=50V	I_R	- -	100 0.1	Adc
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_D	-	2.0	pF
Forward Voltage I_F = 100 mAdc	V_F	-	1.0	Vdc
Reverse Recovery Time I_F=I_R=10 mAdc,$I_{R(REC)}$=1.0 mAdc measured at IR=1.0mA R_L=100Ω	t_{rr}	-	4.0	ns

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAV74	JA	

Characteristics Curve

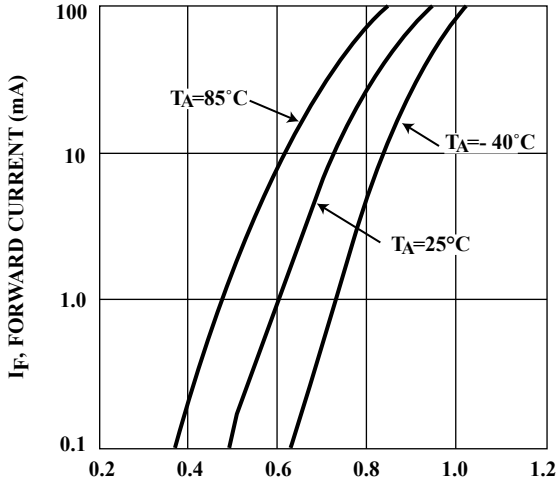


FIG.1 FORWARD VOLTAGE

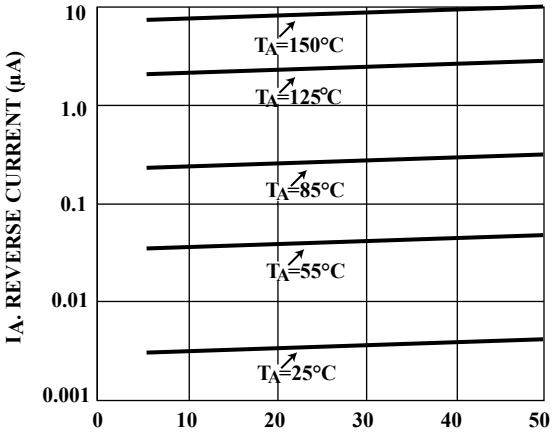


FIG.2 LEAKAGE CURRENT

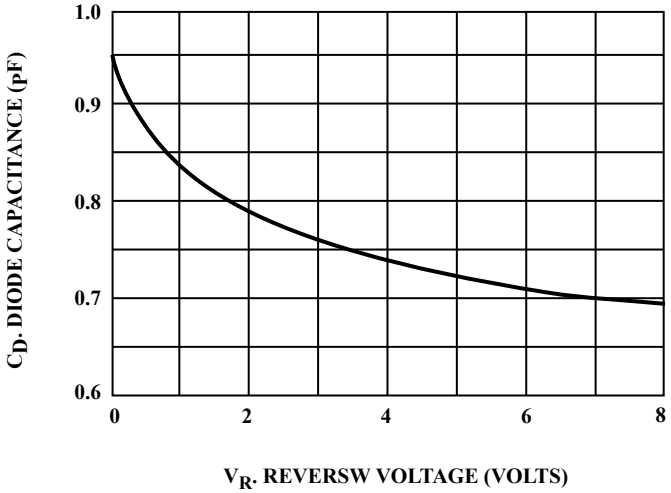


FIG.3 CAPACITANCE