WEITRON

BAV70T

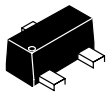
Surface Mount Switching Diodes

Lead(Pb)-Free

SWITCHING DIODES
200 mAMPERES
70 VOLTS

Features:

* Ultra-Small Surface Mount Package
* Fast switching Speed
* For General Purpose Switching Applications
* High Conductance



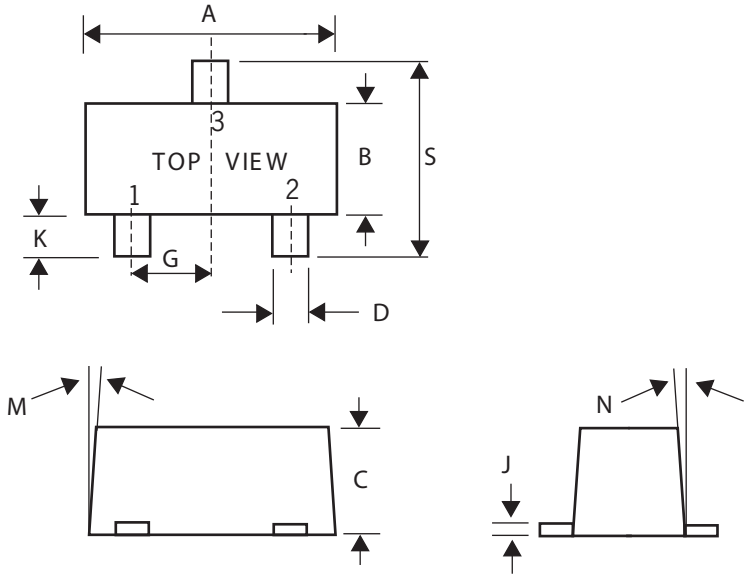
SOT-523F(SC-89)

Mechanical Data:

* Polarity: See Diagrams Page.2
* Marking: See Diagrams Page.2
* Weight: 0.002 grams (approx)

SOT-523F Outline Dimensions (SC-89)

Unit:mm



SC-89			
Dim	**Min**	**Nom**	**Max**
A	1.50	1.60	1.70
B	0.75	0.85	0.95
C	0.60	0.70	0.80
D	0.23	0.28	0.33
G	0.50BSC		
J	0.10	0.15	0.20
K	0.30	0.40	0.50
M	---	---	10°
N	---	---	10°
S	1.50	1.60	1.70

BAV70T

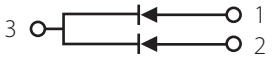
Maximum Ratings (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Reverse Voltage	V_R	70	V
Forward Continuous Current	I_O	200	mA
Peak Forward Surge Current	I_{FSM}	0.5	A
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	$R_{\theta JA}$	555	°C/W
Total Device Dissipation Alumina Substrate[2] T_A = 25°C Derate above 25°C	P_d	300 2.9	mW
Thermal Resistance	$R_{\theta JA}$	345	°C/W
Junction and Storage Temperature Range	T_j,T_{STG}	-55 to + 150	°C

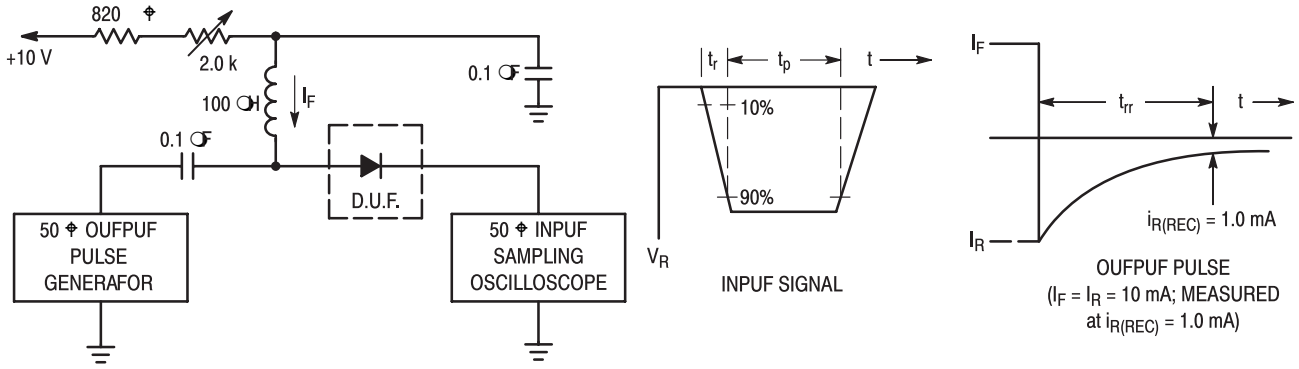
Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage I_R=100μA	$V_{(BR)R}$	70	-	V
Forward Voltage I_F=1.0mA I_F=10mA I_F=50mA I_F=150mA	V_F	-	 715 855 1000 1250	mV
Total Capacitance V_R=0V, f=1.0MHz	C_T	-	1.5	PF
Reverse Current V_R=75V V_R=50V	I_R	-	 5.0 100	 μA nA
Reverse Recover Time I_F = I_R = 10 mA, R_L = 100Ω, $I_{R(REC)}$ = 1.0 mA[Fig.1]	Trr	-	6.0	nS
Forward Recovery Voltage I_F = 10 mA, tr = 20 ns[Fig.2]	V_{RF}	-	1.75	V

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAV70T	A4	

Electrical Characteristic curves(T_A=25°C)



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

Curves Applicable to Each Anode

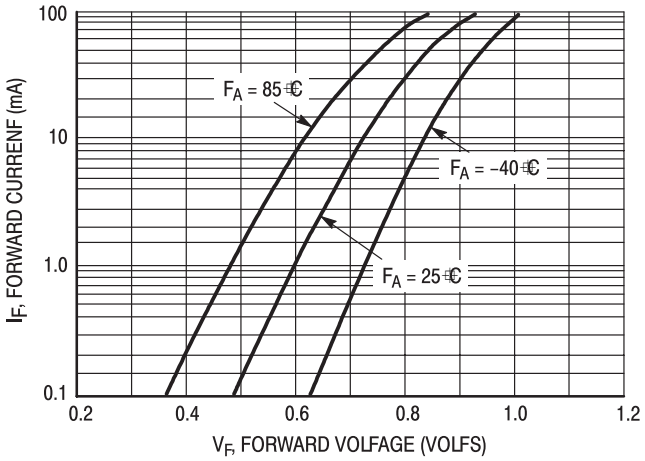


Figure 2. Forward Voltage

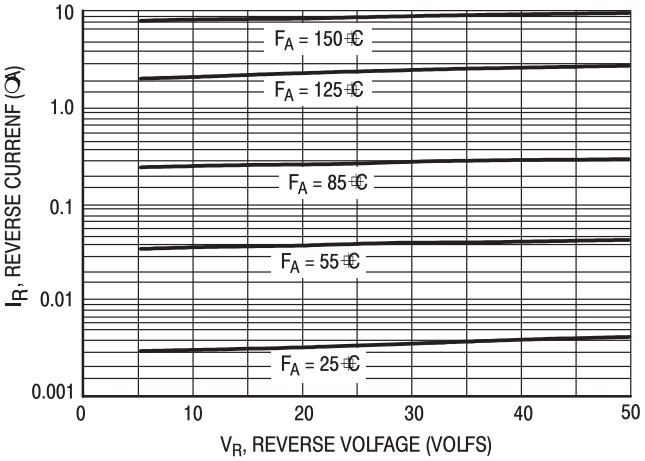


Figure 3. Leakage Current

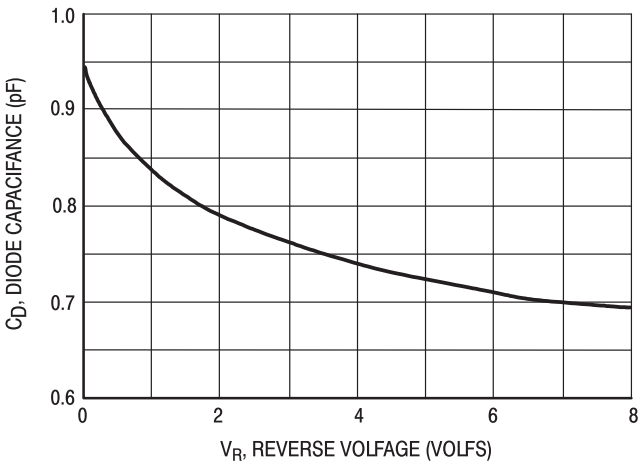


Figure 4. Capacitance