VII. Switching Diode

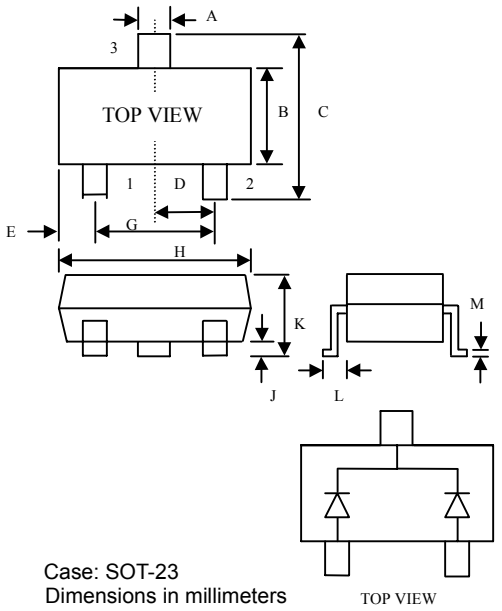
SMD Type (SOT-23)
BAV70 (Package: SOT-23)

FEATURES

- Fast switching speed
- For general purpose switching applications
- High conductance
- Low current leakage
- Small outline surface mount package
- RoHS compliant/Green EMC

DEVICE MARKING CODE

- BAV70 : A4



SOT-23		
DIM	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.10	2.64
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.04
J	0.013	0.10
K	0.90	1.11
L	0.45	0.60
M	0.09	0.18
All Dimensions in mm		

Case: SOT-23
Dimensions in millimeters

Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

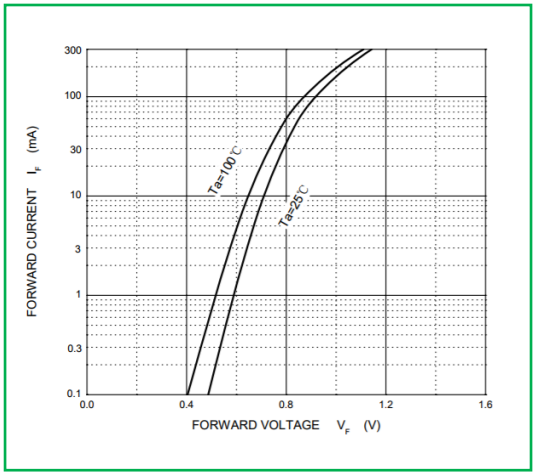
Maximum ratings

Symbol	Parameter	Value	Units
V_R	Reverse voltage	75	Volts
I_O	Average rectified output current	150	mA
P_D	Power dissipation	225	mW
I_{FSM}	Peak forward surge current @t=1.0s Non-repetitive	1.0	A
Tj	Junction temperature	150	℃
Tstg	Storage temperature	-55 to 150	℃
Rth	Thermal resistance	357	℃/W

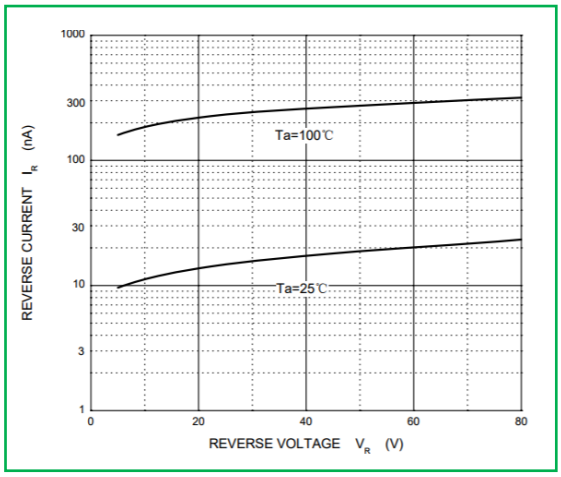
Electrical characteristics

Symbol	Parameter	Test conditions	Min	Max	Units
V_F	Forward voltage	I_F=1mA I_F=10mA I_F=50mA I_F=150mA	- - - -	0.715 0.855 1.000 1.250	Volts
$V_{(BR)R}$	Reverse breakdown voltage	I_R=100μA	75	-	Volts
I_R	Reverse voltage leakage current	V_R=75V V_R=75V Ta=150℃	- -	2.5 50	μA μA
Cj	Typical junction capacitance	V_R=0V , f=1.0MHz	-	2	pF
Trr	Reverse recovery time	I_F=10mA , V_R=0V , R_L=100Ω	-	4	ns

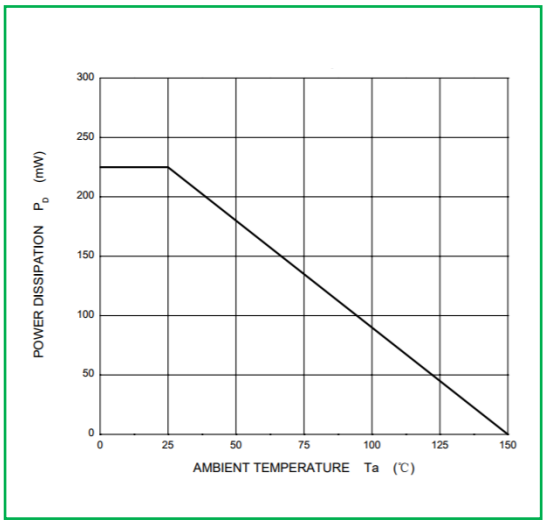
Ratings and Characteristic Curves of BAV70



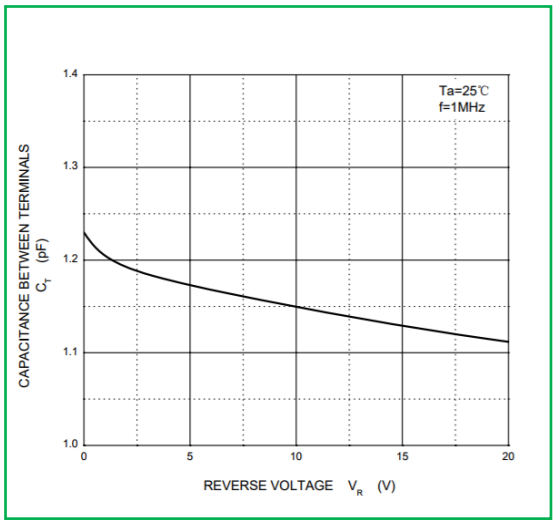
Forward Characteristics



Reverse Characteristics



Power Derating Curve



Capacitance Characteristics