

## BAV70

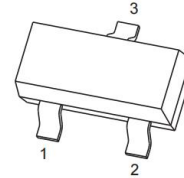
### Switching Diode

#### FEATURE

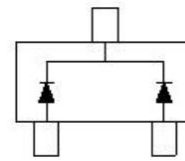
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package
- RoHS compliant / Green EMC

**MARKING: A4**

#### SOT-23



#### Schematic diagram



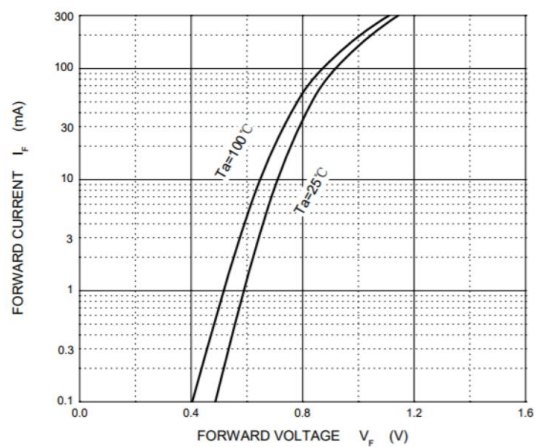
#### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	V
Average Rectified Output Current	$I_O$	150	mA
Power Dissipation	$P_{tot}$	350	mW
Peak Forward Surge Current @ $t=1.0\text{S}$ Non-Repetitive	$I_{FSM}$	1.0	A
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-55 to 150	$^{\circ}\text{C}$
Thermal Resistance	$R$	357	$^{\circ}\text{C}/\text{W}$

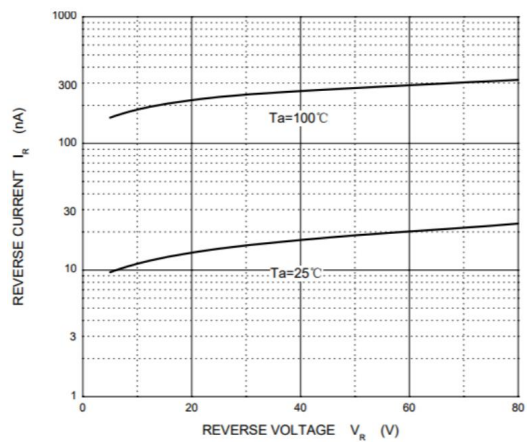
#### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Forward Voltage	$V_F$	$I_F=1\text{mA}$			0.715	V
		$I_F=10\text{mA}$			0.855	V
		$I_F=50\text{mA}$			1.00	V
		$I_F=150\text{mA}$			1.25	V
Reverse breakdown voltage	$V_R$	$I_R=100\mu\text{A}$	75			V
Reverse voltage leakage current	$I_R$	$V_R=75\text{V}$			2.5	$\mu\text{A}$
		$V_R=75\text{V}$ $T_a=150^{\circ}\text{C}$			50	$\mu\text{A}$
Typical Junction Capacitance	$C_j$	$V_R=0\text{V}$ , $f=1.0\text{MHz}$			2	pF
Reverse recovery time	$T_{rr}$	$I_F=10\text{mA}$ , $V_R=0\text{V}$ , $R_L=100\Omega$			4	nS

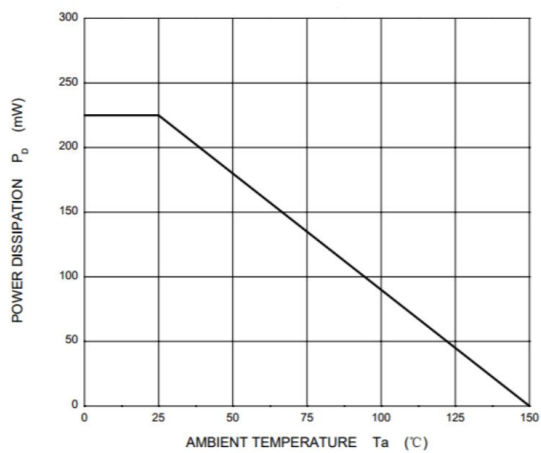
## Typical Electrical



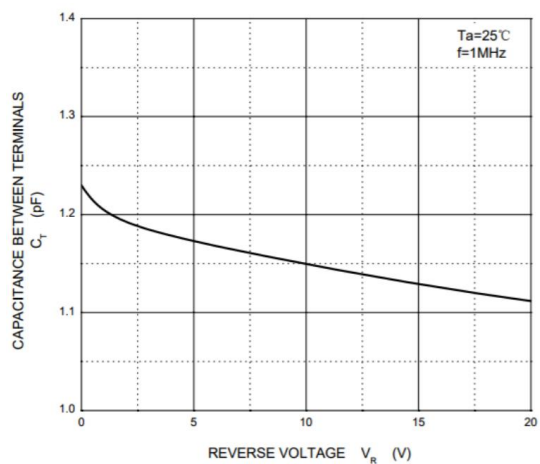
Forward Characteristics



Reverse Characteristics

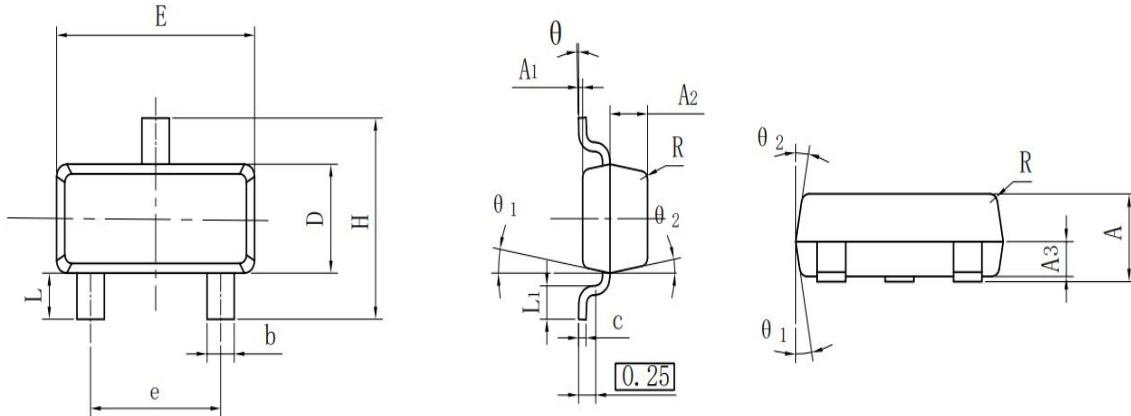


Power Derating Curve



CT vs VR

**SOT-23 Package Information**



SYMBOL	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.90	1.10	0.035	0.043
A1	0.02	0.10	0.001	0.004
A2	0.50	0.60	0.020	0.024
A3	0.35	0.45	0.014	0.018
b	0.37	0.50	0.015	0.020
c	0.09	0.18	0.004	0.007
D	1.20	1.40	0.047	0.055
E	2.80	3.04	0.110	0.120
e	1.80	2.00	0.071	0.079
L	0.45	0.60	0.018	0.024
L1	0.10	0.30	0.004	0.012
H	2.10	2.64	0.083	0.104
theta	0°	8°	0°	8°
theta1	7°	11°	7°	11°
theta2	8°	12°	8°	12°
R	0.12	0.15	0.005	0.006