

## BAV199

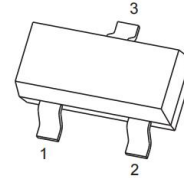
### Switching Diode

#### FEATURE

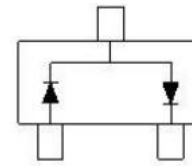
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package
- Rohs Compliant / Green EMC

**MARKING: JY**

SOT-23



Schematic diagram



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

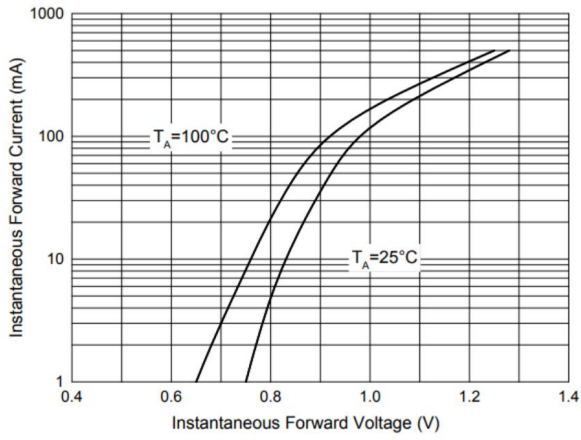
Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	V
Forward Current	$I_F$	500	mA
Non-Repetitive Peak Forward Surge Current* <sup>1</sup>	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	250	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$

\*1 8.3 ms single half sine-wave

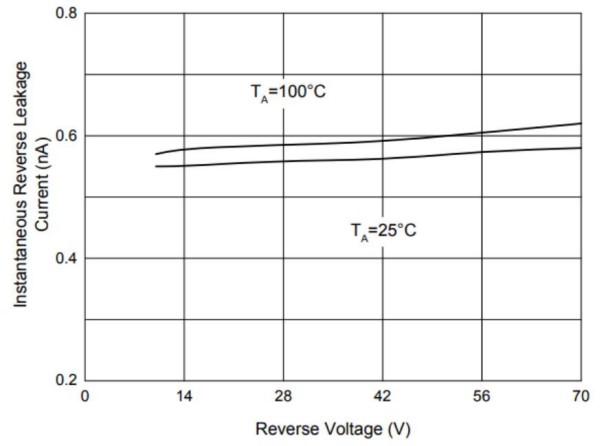
#### ELECTRICAL CHARACTERISTICS( $T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Forward Voltage	$V_F$	$I_F=1\text{mA}$			0.9	V
		$I_F=10\text{mA}$			1.0	V
		$I_F=50\text{mA}$			1.1	V
		$I_F=150\text{mA}$			1.25	V
Reverse breakdown voltage	$V_R$	$I_R=100\mu\text{A}$	70			V
Reverse voltage leakage current	$I_R$	$V_R=70\text{V}$			5	nA
Capacitance between terminals	$C_T$	$V_R=0\text{V}$ , $f=1\text{MHz}$			2	pF
Reverse recovery time	$T_{rr}$	$I_F=I_R=10\text{mA}$			3	$\mu\text{s}$

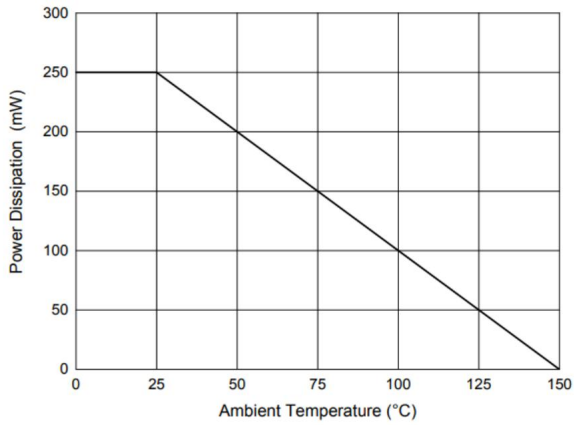
**Typical Electrical**



**Typical Instantaneous Forward Characteristics**



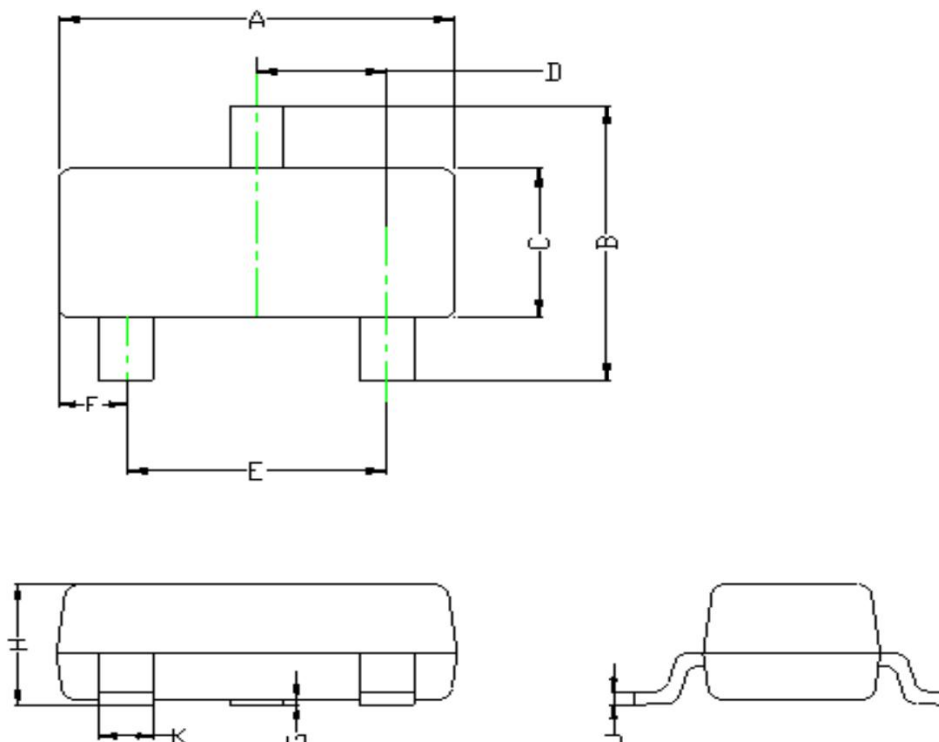
**Typical Reverse Leakage Characteristics**



**Power Derating Curve**

**SOT-23 Package Information**

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BAV199	SOT23	Tape & Reel 3000pcs/7"Reel	8mm	4mm	Conductive	



Symbol	Dimensions In Millimeters		
	Min	Typ	Max
A	2.800	-	3.040
B	2.100	-	2.640
C	1.200	-	1-400
D	0.890	-	1.030
E	1.780	-	2.050
F	0.450	-	0.600
G	0.013	-	0.100
H	0.900	-	1.110
J	0.090	-	0.180
K	0.370	-	0.510

1.Unit mm