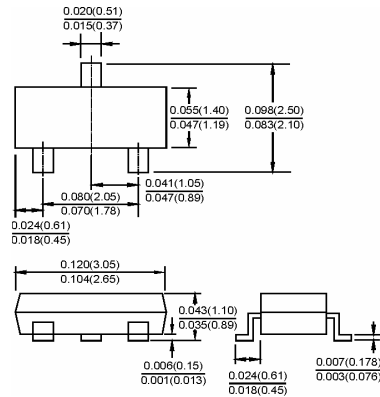


### SOT-23



Dimensions in inches and (millimeters)

### Features

- ✧ Medium speed current applications.
- ✧ Very low leakage current.
- ✧ Surface mount package ideally suited for automatic insertion

### Applications

- ✧ Small signal switching

### Ordering Information

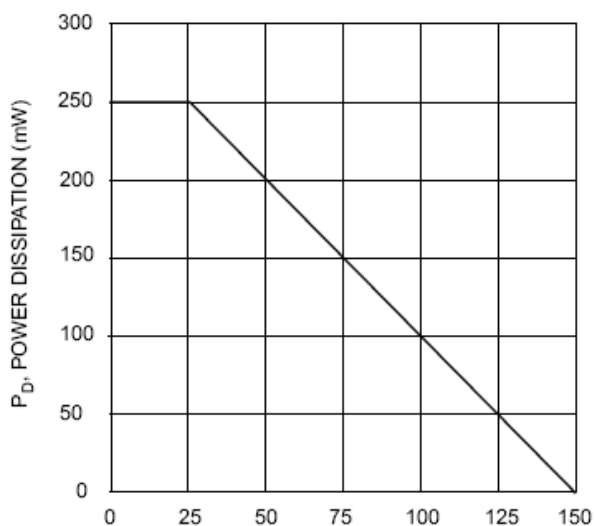
Type No.	Marking	Package Code
BAV199	JY	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

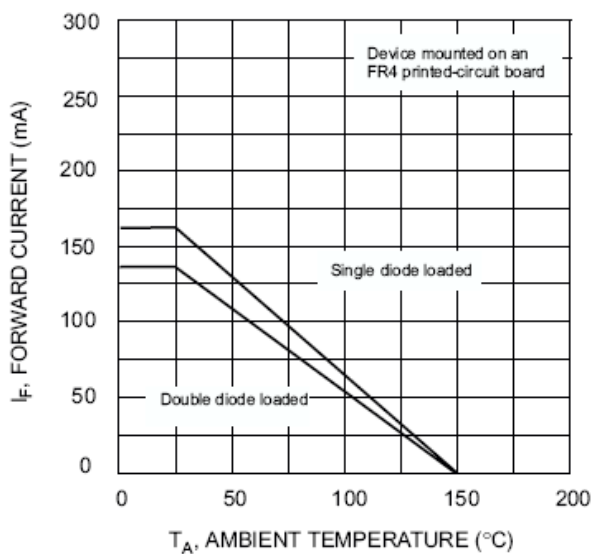
Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	85	V
Working peak reverse voltage	$V_{RWM}$		
DC Reverse voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	60	V
Peak forward surge current	$I_{FSM}$	@t=1.0μs 4.0	A
		@t=1.0ms 1.0	
		@t=1.0s 0.5	
Forward continuous current	$I_{FM}$	single diode 160	mA
		double diode 140	
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Power dissipation	$P_d$	250	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65-150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu A$	85		V
Reverse voltage leakage current	$I_R$	$V_R = 75V$ $V_R = 75V T_j = 150^\circ C$		5.0 80	nA nA
Forward voltage	$V_F$	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$		900 1000 1100 1250	mV
Junction capacitance	$C_j$	$V_R = 0V f = 1MHz$		2.0	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA I_{rr} = 0.1 \cdot I_R$ $R_L = 100\Omega$		3.0	$\mu S$

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**


$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$T_A$ , AMBIENT TEMPERATURE (°C)

Fig. 2 Current Derating Curve