**SOT-23** 



#### **Features**

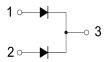
- Plastic SMD package
- · Low leakage current

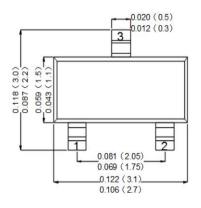
#### **Application**

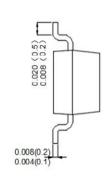
 Low leakage current applications in surface mounted circuits.

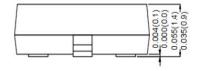
### **Mechanical Data**

- Case:Molded Plastic,SOT-23
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable perMIL-STD-750,Method-2026.
- Marking: JV
- Mounting Position : Any.
- Equivalent Circuit:









Dimensions in inches and (millimeters)

# Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		$V_{RRM}$	85	V
Continuous Reverse Voltage		$V_R$	75	V
Continuous Forward Current		I <sub>F</sub>	215	mA
Repetitive Peak Forward Current		I <sub>FRM</sub>	500	mA
Non-Repetitive Peak Forward Surge Current	t = 1 μs t = 1 ms t = 1 s	I <sub>FSM</sub>	4 1 0.5	А
Power Dissipation		P <sub>tot</sub>	250	mW
Junction Temperature		T <sub>j</sub>	150	°C
Storage Temperature Range		T <sub>stg</sub>	- 65 to + 150	°C

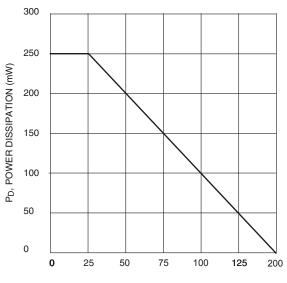
# Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Тур.	Max.	U
Forward Voltage at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 150$ mA	V <sub>F</sub> V <sub>F</sub> V <sub>F</sub>	- - -	0.9 1 1.1 1.25	V V V
Reverse Current at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}$ , $T_j = 150 \text{ °C}$	I <sub>R</sub>		5 80	nA
Diode Capacitance at V <sub>R</sub> = 0, f = 1 MHz	C <sub>d</sub>	2	-	pF
Reverse Recovery Time at $I_F = I_R = 10$ mA, $R_L = 100$ $\Omega$ , $i_{rr} = 0.1$ $I_R$	t <sub>rr</sub>	-	3	μs

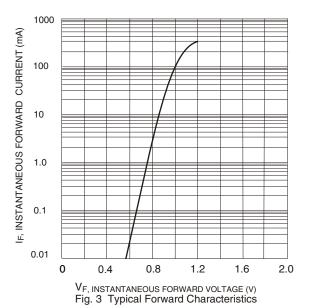
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### **Rating And Characteristic Curves**



T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 1 Power Derating Curve



300

Device mounted on an FR4 printed-circuit board

250

150

100

0

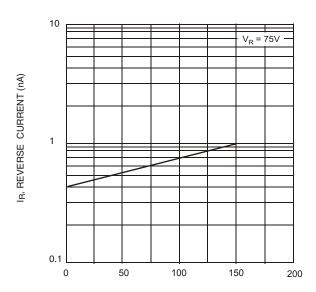
50

100

150

200

T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 2 Current Derating Curve



T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 4 Typical Reverse Characteristics

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