

Silicon Epitaxial Planar Diode

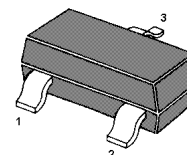
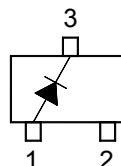
Low leakage switching diode

Features

- Plastic SMD package
- Low leakage current

Application

- Low leakage current applications in surface mounted circuits.



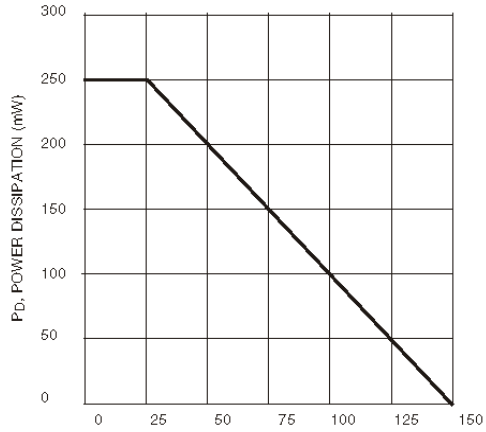
Marking Code: **JV**
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

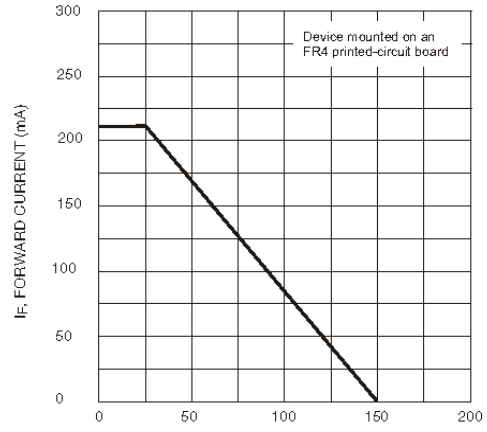
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Continuous Forward Current	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t = 1\ \mu\text{s}$	4
		$t = 1\ \text{ms}$	1
		$t = 1\ \text{s}$	0.5
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

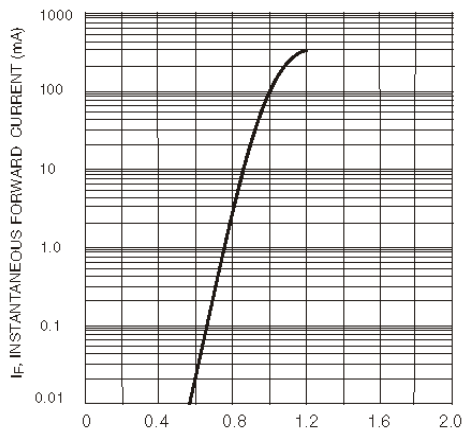
Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 1\ \text{mA}$ at $I_F = 10\ \text{mA}$ at $I_F = 50\ \text{mA}$ at $I_F = 150\ \text{mA}$	V_F	-	0.9	V
	V_F	-	1	V
	V_F	-	1.1	V
	V_F	-	1.25	V
Reverse Current at $V_R = 75\ \text{V}$ at $V_R = 75\ \text{V}, T_j = 150\text{ }^\circ\text{C}$	I_R	-	5	nA
		-	80	
Diode Capacitance at $V_R = 0, f = 1\ \text{MHz}$	C_d	2	-	pF
Reverse Recovery Time at $I_F = I_R = 10\ \text{mA}, R_L = 100\ \Omega, i_{rr} = 0.1\ I_R$	t_{rr}	-	3	μs



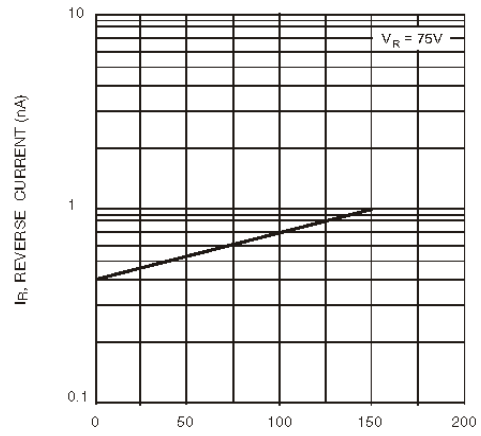
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



T_A , AMBIENT TEMPERATURE (°C)
Fig. 2 Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 3 Typical Forward Characteristics

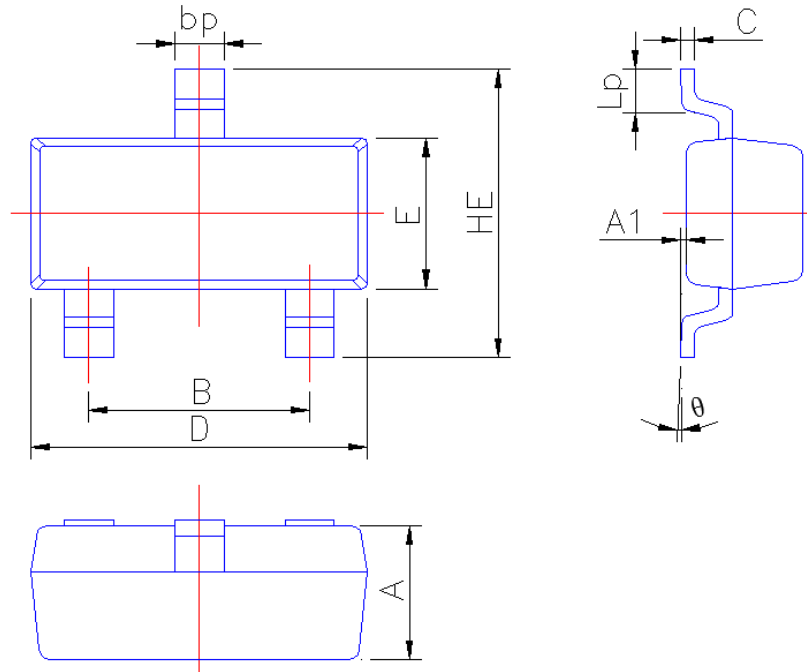


T_A , AMBIENT TEMPERATURE (°C)
Fig. 4 Typical Reverse Characteristics

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.10
A1	0.013	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.09	0.150
D	2.80	3.00
E	1.20	1.40
HE	2.20	2.80
Lp	0.20	0.50
θ	0°	5°