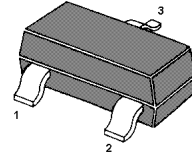
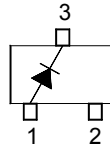


Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- High Conductance



Marking Code: **5D**
SOT-23 Plastic Package

Applications

- For general purpose switching

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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	250	mA
Forward Continuous Current	I_{FM}	500	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	2	A
		4	
Power Dissipation	P_d	350	mW
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	V_F	0.62	0.72	V
at $I_F = 5\text{ mA}$		-	0.855	
at $I_F = 10\text{ mA}$		-	1	
at $I_F = 150\text{ mA}$		-	1.25	
Reverse Current	I_R	-	25	nA
at $V_R = 20\text{ V}$		-	2.5	μA
at $V_R = 75\text{ V}$		-	30	μA
at $V_R = 25\text{ V}, T_j = 150\text{ }^\circ\text{C}$		-	50	μA
Junction Capacitance	C_j	-	4	pF
Reverse Recovery Time	t_{rr}	-	4	ns
at $I_F = I_R = 10\text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100\ \Omega$				

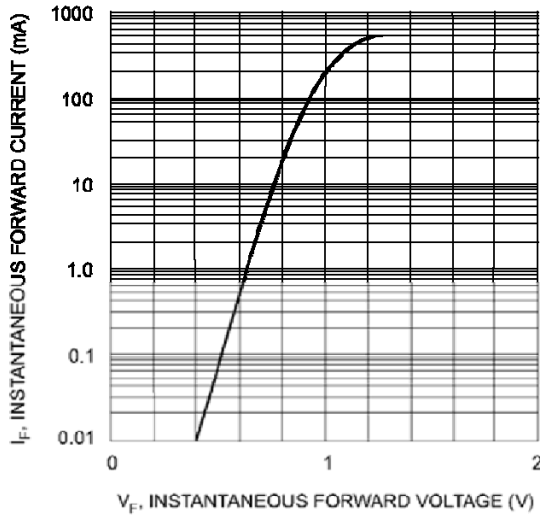


Fig. 1 Forward Characteristics

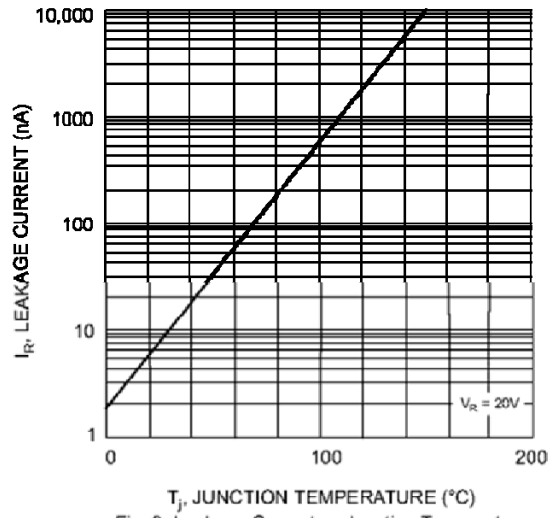


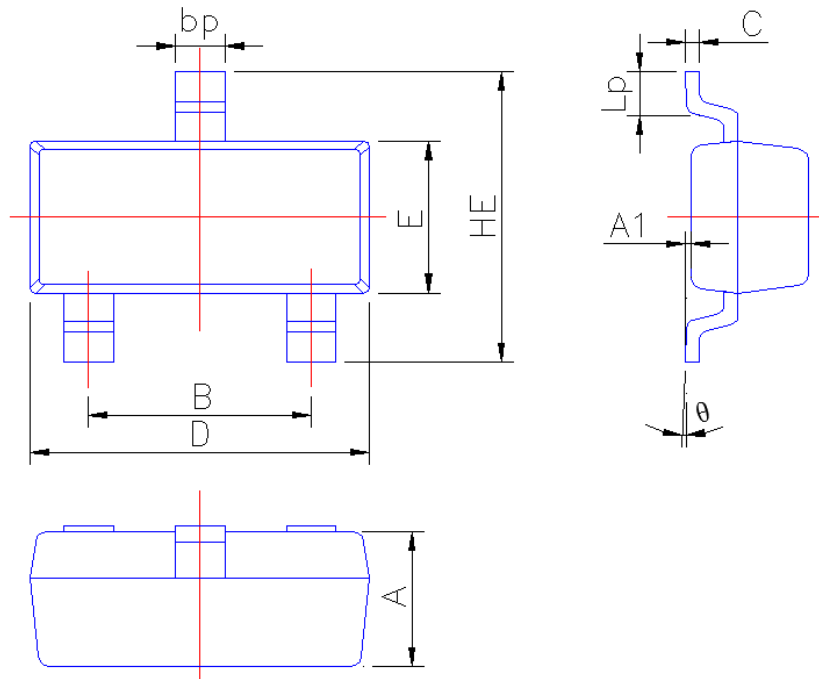
Fig. 2 Leakage Current vs Junction Temperature



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°