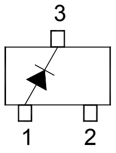
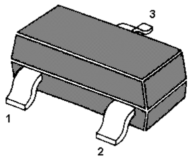
Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- High Conductance





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

Applications

- For general purpose switching

Absolute Maximum Ratings (T_a = 25 °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	at t = 1 s at t = 1 µs	I_{FSM}	2 4	A
Power Dissipation		P_d	350	mW
Junction and Storage Temperature Range		T_j, T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 5 mA at I_F = 10 mA at I_F = 100 mA at I_F = 150 mA	V_F	0.62 - - -	0.72 0.855 1 1.25	V
Reverse Current at V_R = 20 V at V_R = 75 V at V_R = 25 V, T_j = 150 °C at V_R = 75 V, T_j = 150 °C	I_R	- - - -	25 2.5 30 50	nA µA µA µA
Junction Capacitance at V_R = 0 V, f = 1 MHz	C_j	-	4	pF
Reverse Recovery Time at I_F = I_R = 10 mA, I_{rr} = 0.1 X I_R, R_L = 100 Ω	t_{rr}	-	4	ns

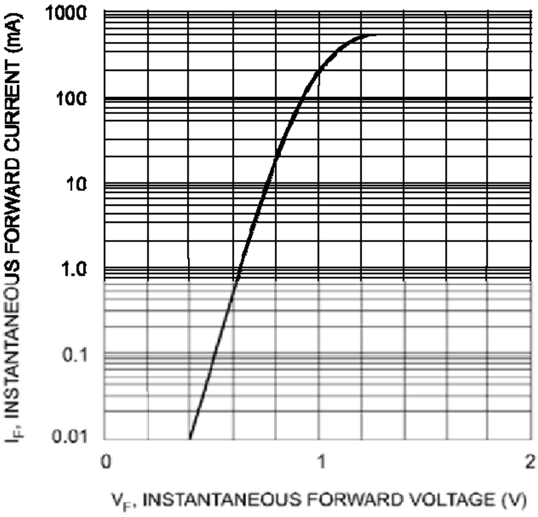


Fig. 1 Forward Characteristics

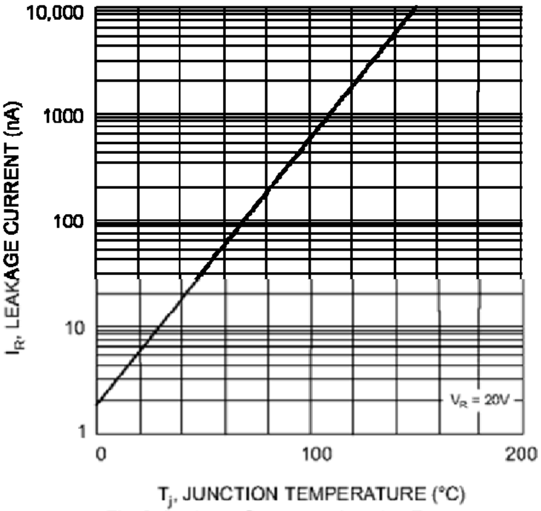


Fig. 2 Leakage Current vs Junction Temperature