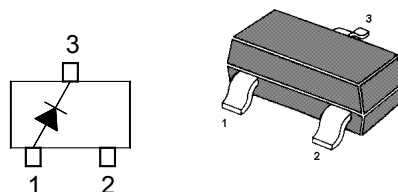


## Silicon Epitaxial Planar Switching Diode

### Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



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

### Applications

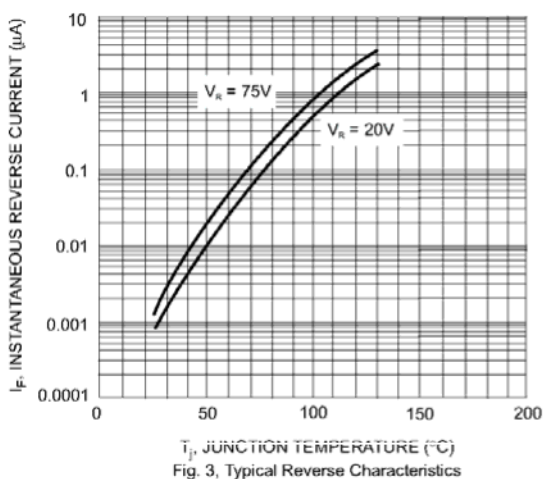
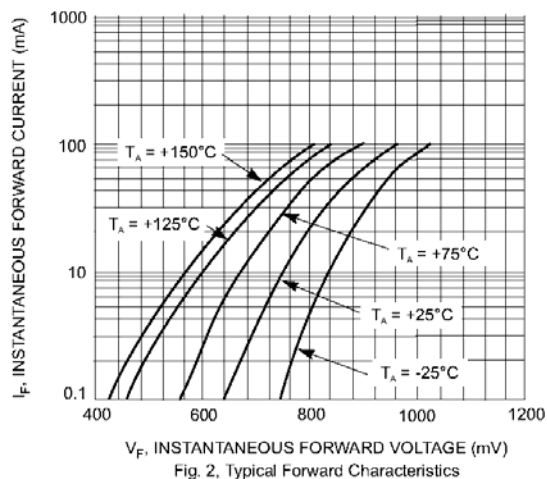
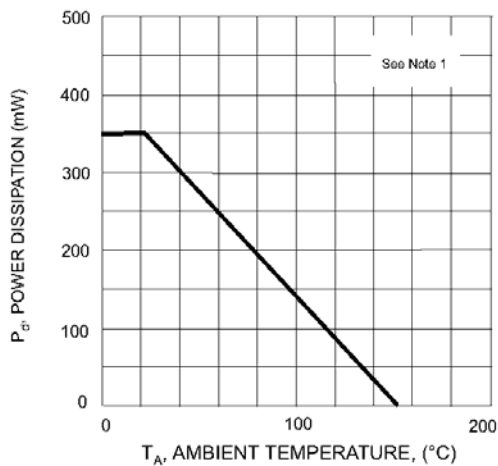
- Ultra high speed switching application

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

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	100	V
Forward Current	$I_F$	200	mA
Non-repetitive Peak Forward Surge Current ( $t = 1\ \mu\text{s}$ )	$I_{FSM}$	4	A
Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

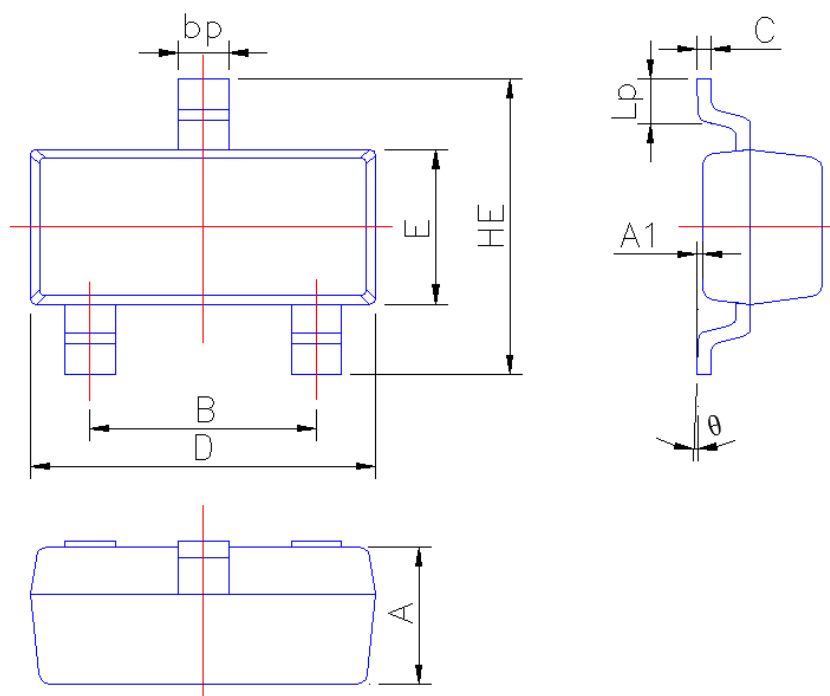
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\ \text{mA}$	$V_F$	-	1	V
Reverse Breakdown Voltage at $I_R = 100\ \mu\text{A}$	$V_{(BR)R}$	100	-	V
Reverse Current at $V_R = 20\ \text{V}$ at $V_R = 75\ \text{V}$	$I_R$	- -	25 5	nA $\mu\text{A}$
Reverse Recovery Time at $I_F = I_R = 10\ \text{mA}$	$t_{rr}$	-	4	ns
Total Capacitance at $V_R = 0$ , $f = 1\ \text{MHz}$	$C_T$	-	4	pF



### 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°