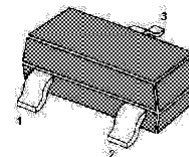
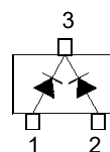


1SS301

ULTRA HIGH SPEED SWITCHING APPLICATIONS

■ Features

- Low forward voltage: $V_{F(3)} = 0.90$ V(Typ)
- Fast reverse recovery time: $t_{rr} = 1.6$ ns (Typ)
- Small total capacitance: $C_T = 0.9$ pF(Typ)



Marking Code: **B3**
SOT-23 Plastic Package

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

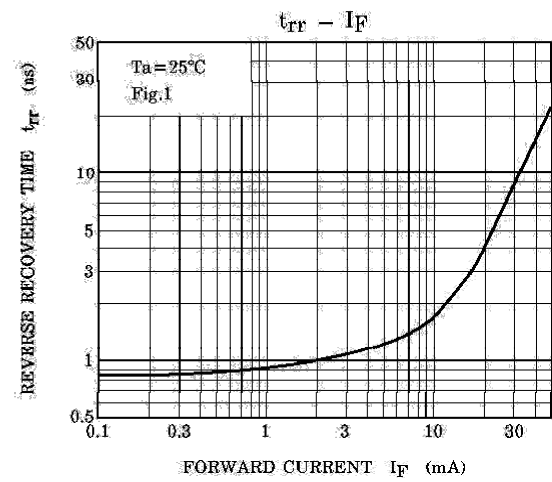
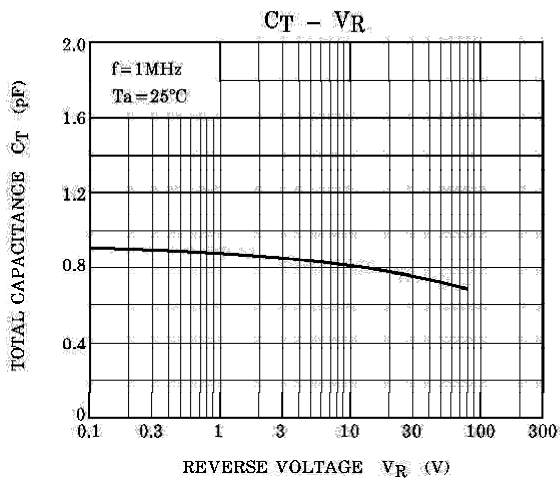
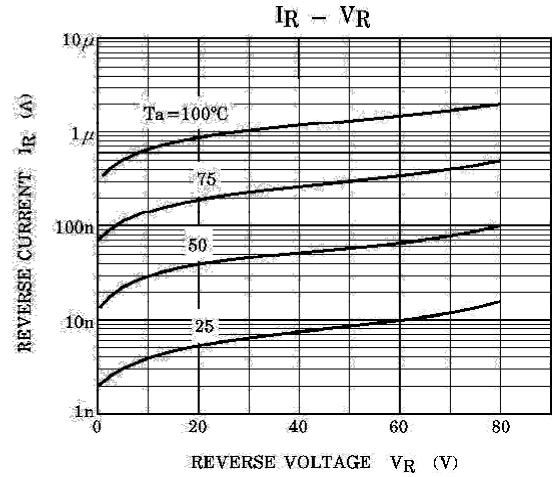
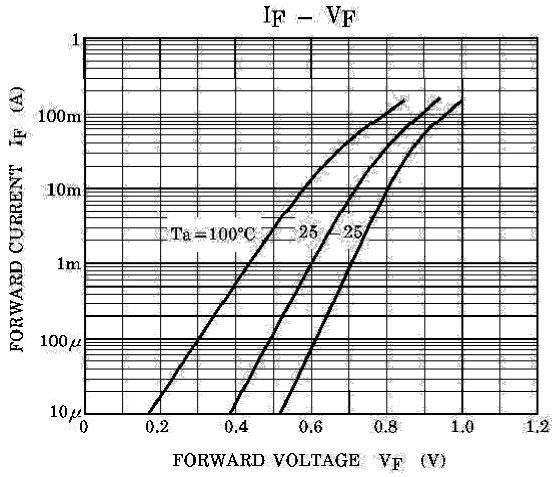
Parameter	Symbol	Rating	Unit
Maximum (peak) reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	300(*)	mA
Average forward current	I_o	100(*)	mA
Surge current (10 ms)	I_{FSM}	2(*)	A
Power dissipation	P	100	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

(*) Unit rating. Total rating = Unit rating $\times 1.5$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F(1)}$	$I_F = 1$ mA			0.60	V
	$V_{F(2)}$	$I_F = 10$ mA			0.72	
	$V_{F(3)}$	$I_F = 100$ mA		0.90	1.2	
Reverse current	$I_{R(1)}$	$V_R = 30$ V			0.1	μA
	$I_{R(2)}$	$V_R = 80$ V			0.5	
Total capacitance	C_t	$V_R = 0, f = 1.0$ MHz		0.9	3.0	pF
Reverse recovery time	t_{rr}	$I_F = 10$ mA		1.6	4.0	ns

Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

