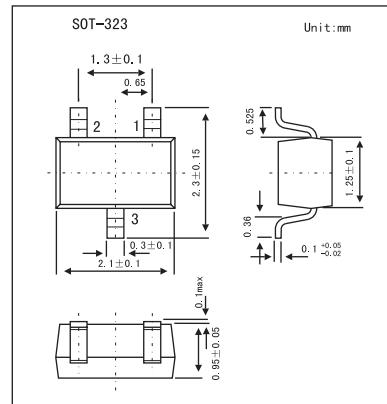


## ULTRA HIGH SPEED SWITCHING APPLICATIONS

## 1SS301

## ■ Features

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

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

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

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

## ■ Marking

Marking	B3
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