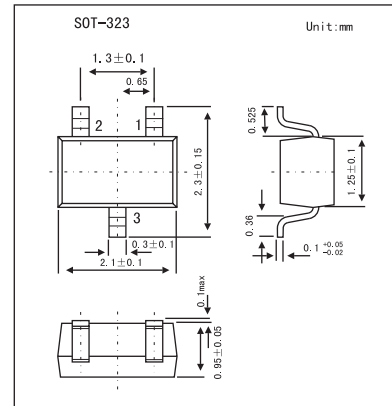


ULTRA HIGH SPEED SWITCHING APPLICATIONS

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	μA
	$I_{R(2)}$	$V_R = 80 \text{ V}$			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
---------	----