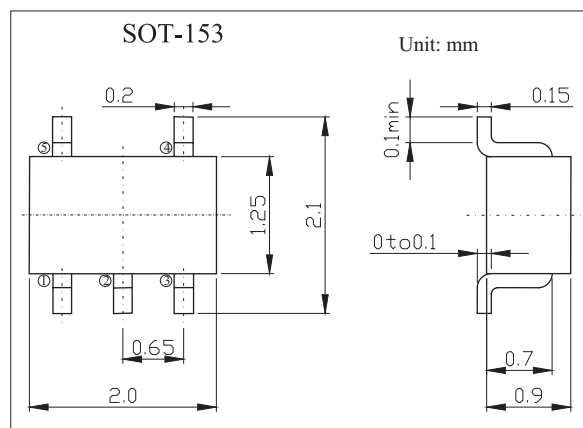


Ultra High Speed Switching Applications

1SS309

■ Features

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

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

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 ⁽¹⁾	mA
Average forward current	I_O	100 ⁽¹⁾	mA
Surge current (10 ms)	I_{FSM}	2 ⁽¹⁾	A
Power dissipation	P	200	mW
Junction temperature	T_j	125	$^\circ C$
Storage temperature range	T_{stg}	-55 to +125	$^\circ C$

Note

1. Unit Rating. Total Rating = Unit Rating $\times$ 1.5■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	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		
	$V_{F(3)}$	$I_F = 100\text{ mA}$		0.92	1.20	
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	$V_R = 0\text{ V}, f = 1\text{ MHz}$		0.9	3.0	pF
Reverse recovery time	t_{rr}	$I_F = 10\text{ mA}$		1.6	4.0	ns

■ Marking

Marking	A2
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