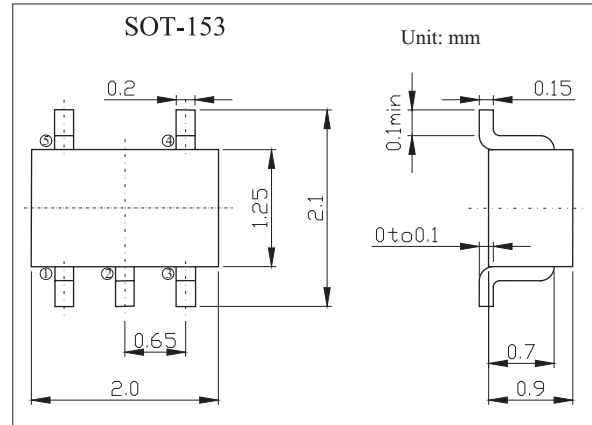


## Ultra High Speed Switching Applications

## 1SS308



### ■ Features

- Low forward voltage:  $V_F(3) = 0.92V$  (typ.)
- Fast reverse recovery time:  $t_{rr} = 1.6ns$  (typ.)
- Small total Capacitance:  $C_T = 2.2pF$  (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 <sup>(1)</sup>	mA
Average forward current	$I_o$	100 <sup>(1)</sup>	mA
Surge current (10 ms)	$I_{FSM}$	2 <sup>(1)</sup>	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	$V_{F(1)}$	$I_F = 1\text{ mA}$		0.61		V
	$V_{F(2)}$	$I_F = 10\text{ mA}$		0.74		
	$V_{F(3)}$	$I_F = 100\text{ mA}$		0.92	1.20	
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	$C_T$	$V_R = 0\text{ V}, f = 1\text{ MHz}$		2.2	4.0	pF
Reverse recovery time	$t_{rr}$	$I_F = 10\text{ mA}$		1.6	4	ns

### ■ Marking

Marking	A1
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