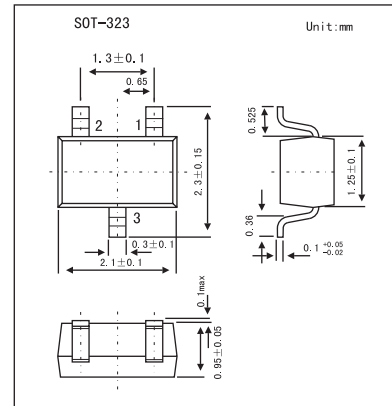


## HIGH SPEED SWITCHING SILICON EPITAXIAL DOUBLE DIODE

## 1SS304

## ■ Features

- Low capacitance:  $C_t = 1.1$  pF TYP.
- High speed switching:  $t_{rr} = 3.0$  ns MAX.
- Wide applications including switching, limiter, clipper.
- Double diode configuration assures economical use.

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

Parameter	Symbol	Rating	Unit
Peak Reverse Voltage	$V_{RM}$	75	V
DC Reverse Voltage	$V_R$	50	V
Surge Current (1 $\mu$ s) Note 1	$I_{FSM}$	6.0	A
Surge Current (1 $\mu$ s)	$I_{FSM}$	4.0	A
Peak Forward Current Note 1	$I_{FM}$	450	mA
Peak Forward Current	$I_{FM}$	300	mA
Average Rectified Current (Note 1)	$I_o$	150	mA
Average Rectified Current	$I_o$	100	mA
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Junction to Ambient (Note 1)	$R_{th(j-a)}$	1.0	$^\circ\text{C mW}$
Junction to Ambient	$R_{th(j-a)}$	0.85	$^\circ\text{C mW}$

Note

1. Both diodes loaded simultaneously.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F(1)}$	$I_F = 10$ mA		0.67	1.0	V
	$V_{F(2)}$	$I_F = 50$ mA		0.75	1.1	
	$V_{F(3)}$	$I_F = 100$ mA		0.85	1.2	
Reverse current	$I_{R(1)}$	$V_R = 50$ V			0.1	$\mu$ A
Capacitance	$C_t$	$V_R = 0, f = 1.0$ MHz		1.1	4.0	pF
Reverse recovery time	$t_{rr}$				3.0	ns

## ■ Marking

Marking	A6
---------	----