

HIGH SPEED SWITCHING SILICON EPITAXIAL DOUBLE DIODE

1SS303

■ Features

- Low capacitance: $C_t = 2.5$ pF TYP.
- High speed switching: $t_{rr} = 4.0$ 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 μ s) Note 1	I_{FSM}	6.0	A
Surge Current (1 μ 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	$^\circ\text{C}/\text{mW}$
Junction to Ambient	$R_{th(j-a)}$	0.85	$^\circ\text{C}/\text{mW}$

Note

1. Both diodes loaded simultaneously.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F(1)}$	$I_F = 1$ mA		0.72	1.0	V
	$V_{F(2)}$	$I_F = 50$ mA		0.88	1.1	
	$V_{F(3)}$	$I_F = 100$ mA		1.0	1.2	
Reverse current	$I_{R(1)}$	$V_R = 50$ V			0.1	μ A
Capacitance	C_t	$V_R = 0, f = 1.0$ MHz		2.5	4.0	pF
Reverse recovery time	t_{rr}				4.0	ns

■ Marking

Marking	A4
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