

SILICON SWITCHING DIODE

1SS123

■ Features

- Low capacitance: $C_t = 4.0 \text{ pF MAX}$
- High speed switching: $t_{rr} = 9.0 \text{ ns MAX}$.
- 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}	70	V
DC Reverse Voltage	V_R	70	V
Peak Reverse Current	I_{FM}	200	mA
Average Rectified Current	I_o	100	mA
DC Forward Current	I_F	100	mA
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to+ 150	$^\circ\text{C}$
Junction to Ambient*	$R_{th(j-a)}$	1.0	$^\circ\text{C}/\text{mW}$
Junction to Ambient	$R_{th(j-a)}$	0.67	$^\circ\text{C}/\text{mW}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Continuous reverse voltage	V_F	$I_F = 1.0 \text{ mA}$		600	715	mV
		$I_F = 10 \text{ mA}$		750	855	
		$I_F = 50 \text{ mA}$		855	1100	
		$I_F = 100 \text{ mA}$		900	1300	
Reverse current	I_R	$V_R = 70 \text{ V}$			1.0	μA
Capacitance	C_t	$V_R = 0, f = 1.0 \text{ MHz}$		2.5	4.0	pF
Reverse recovery time	t_{rr}	$I_F = 100 \text{ mA}, V_R = 1 \text{ V}, R_L = 100 \Omega$			9.0	ns
Forward recovery voltage	V_{fr}	$I_F = 100 \text{ mA}$			1.75	V

■ Marking

Marking	A7
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