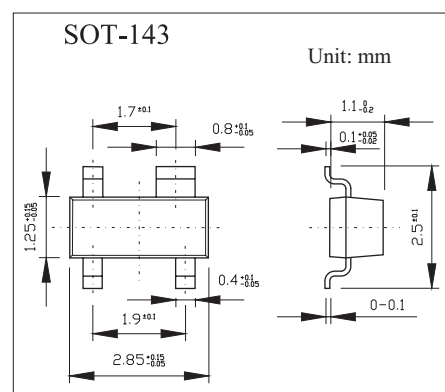


Ultrahigh Speed Switching Applications

1SS272

■ Features

- Low Forward Voltage: $V_{F(3)} = 0.92$ V(Typ.)
- Fast Reverse Recovery Time: $t_{rr} = 1.6$ ns (Typ.)
- Small Total Capacitance: $C_T = 0.9$ pF(Typ.)

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

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	150	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +125	$^\circ\text{C}$

Note

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$V_{F(1)}$	$I_F = 1$ mA		0.61		V
	$V_{F(2)}$	$I_F = 10$ mA		0.74		
	$V_{F(3)}$	$I_F = 100$ mA		0.92	1.20	
Reverse current	$I_{R(1)}$	$V_R = 30$ V			0.1	μA
	$I_{R(2)}$	$V_R = 80$ V			0.5	
Total capacitance	C_T	$V_R = 0$ V, $f = 1$ MHz		0.9	2.0	pF
Reverse recovery time	t_{rs}	$I_F = 10$ mA		1.6	4	ns

■ Marking

Marking	A1
---------	----