

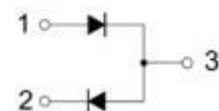
FEATURES

Small Package

Low Forward Voltage

APPLICATIONS

High Speed Switching

SOT-323

MARKING: N9
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

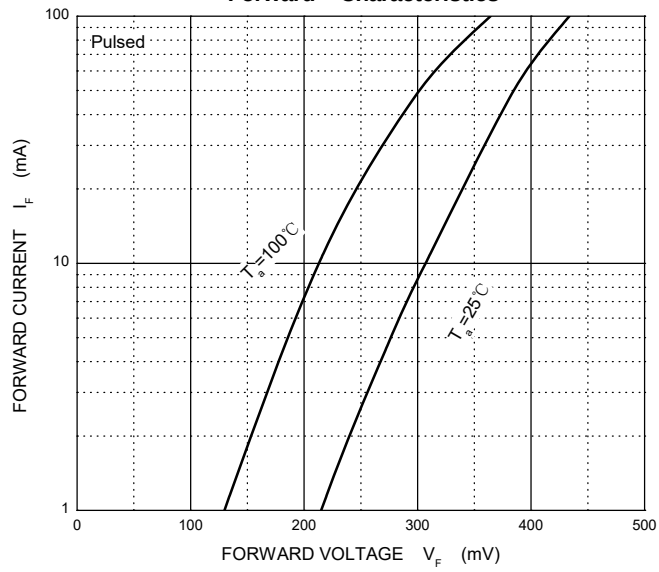
Symbol	Parameter	Value	Unit
V_R	DC Blocking Voltage	10	V
I_o	Forward Continuous Current	100	mA
I_{FM}	Peak Forward Current	200	mA
I_{FSM}	Non-respetitive Peak Forward Surge Current@t=8.3ms	1	A
P_D	Power Dissipation	100	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	1000	$^{\circ}\text{C}/\text{W}$
T_j	Operating Junction Temperature Range	-40 ~ +125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

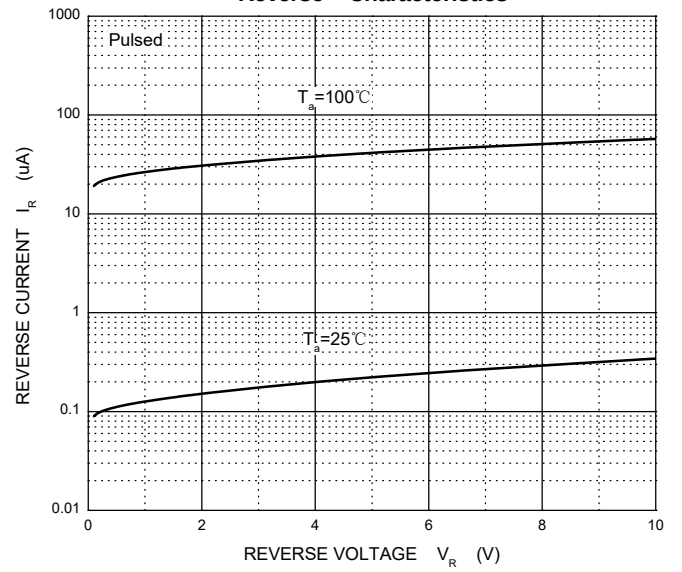
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	10			V
Reverse current	I_R	$V_R=10\text{V}$			20	μA
Forward voltage	V_F	$I_F=1\text{mA}$		0.18		V
		$I_F=5\text{mA}$		0.3		
		$I_F=100\text{mA}$			0.5	
Total capacitance	C_{tot}	$V_R=0\text{V}, f=1\text{MHz}$			40	pF

Typical Characteristics

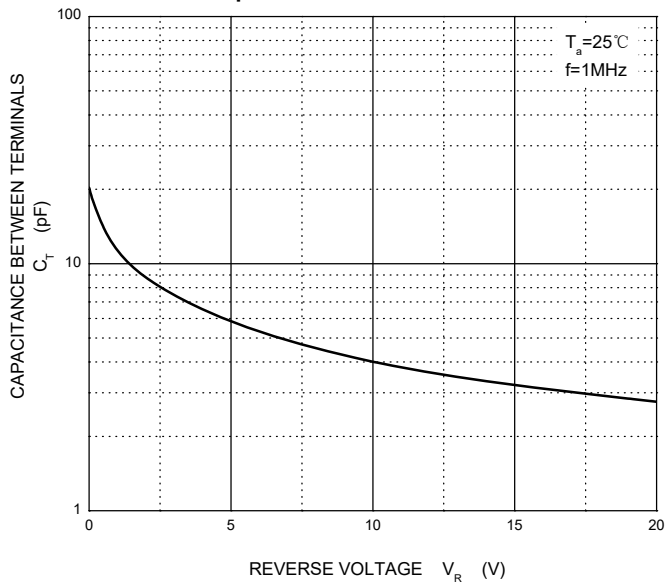
Forward Characteristics



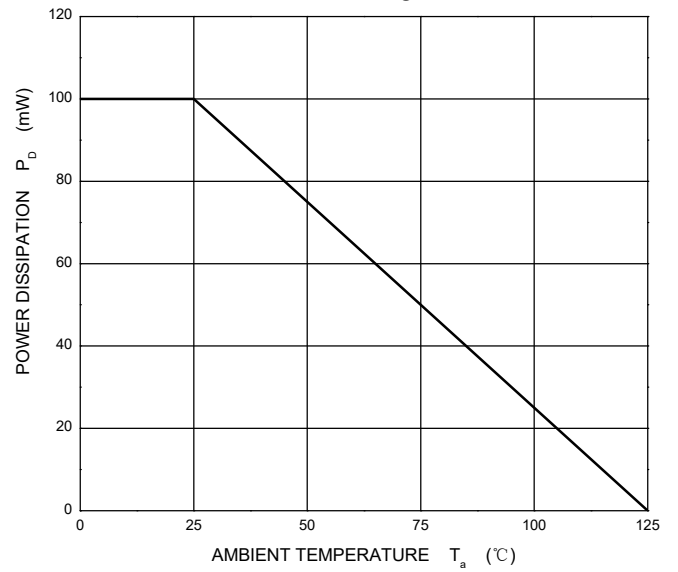
Reverse Characteristics



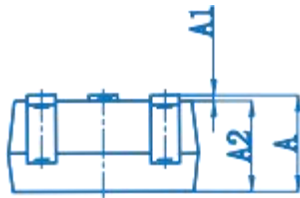
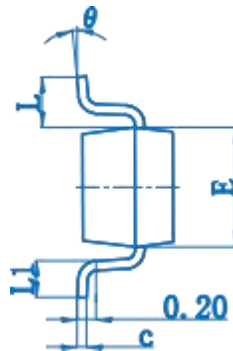
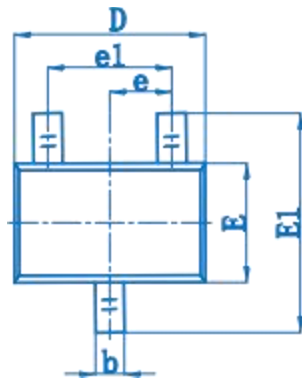
Capacitance Characteristics



Power Derating Curve

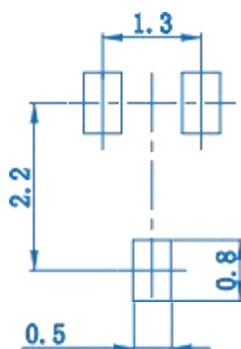


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.