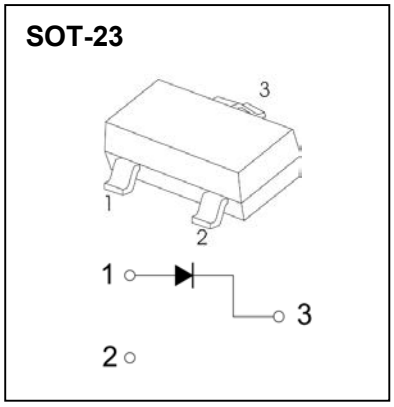
SOT-23 Plastic-Encapsulate Diodes



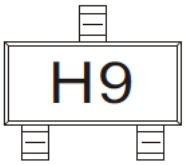
FEATURES

- Low Forward Voltage
- Fast Reverse Recovery Time
- High Forward Current

APPLICATIONS

- High Speed Switching

MARKING: H9



MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

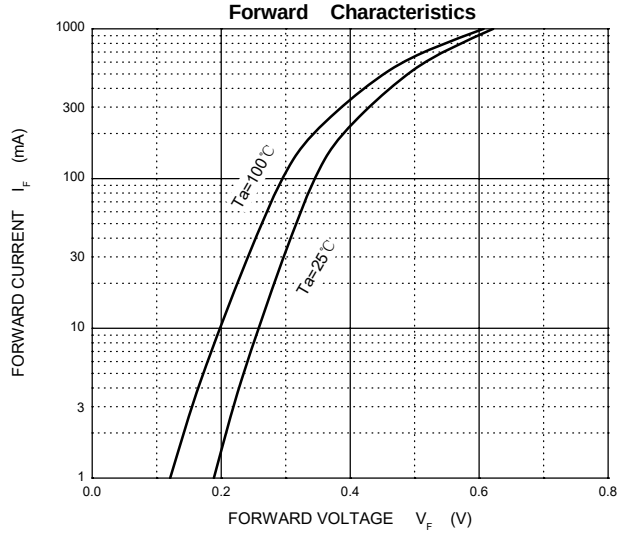
Symbol	Parameter	Value	Unit
V_R	DC Blocking Voltage	20	V
I_O	Forward Continuous Current	500	mA
I_{FM}	Peak Forward Current	1.5	A
I_{FSM}	Non-repetitive Peak Forward Surge Current@t=8.3ms	5	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	℃/W
T_j	Operating Junction Temperature Range	-40 ~ +125	℃
T_{stg}	Storage Temperature Range	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

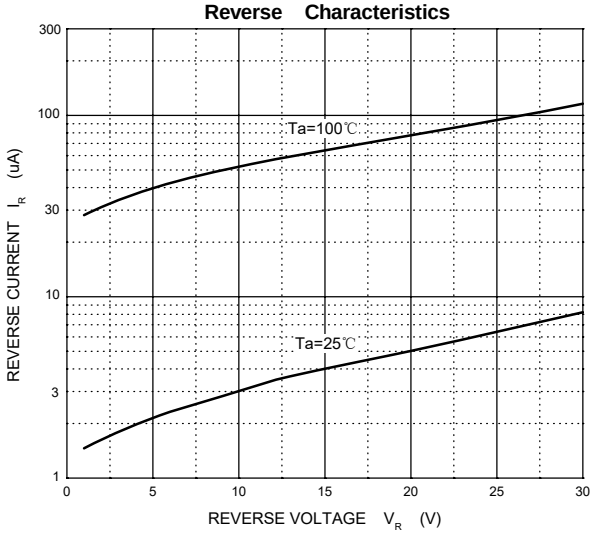
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100μA	20			V
Reverse current	I_R	V_R=10V			20	μA
		V_R=20V			100	
Forward voltage	V_F	I_F=10mA			0.35	V
		I_F=100mA			0.43	
		I_F=500mA			0.55	
Total capacitance	C_{tot}	V_R=0V, f=1MHz		120		pF
Reverse recovery time	t_{rr}	I_F= I_R=50mA, V_R=6V		20		ns

Typical Characteristics

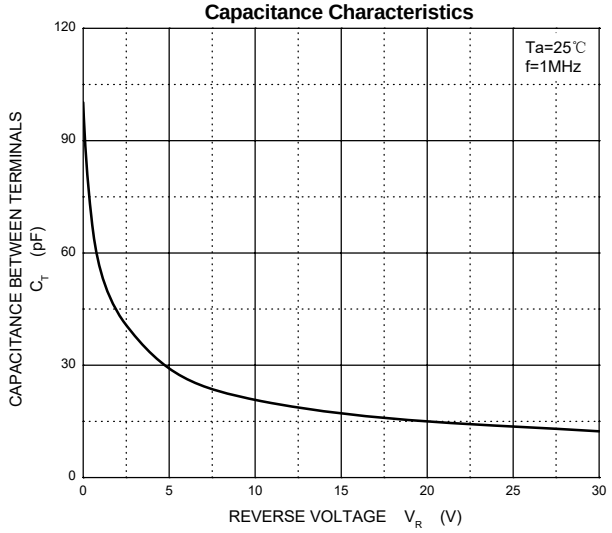
Forward Characteristics



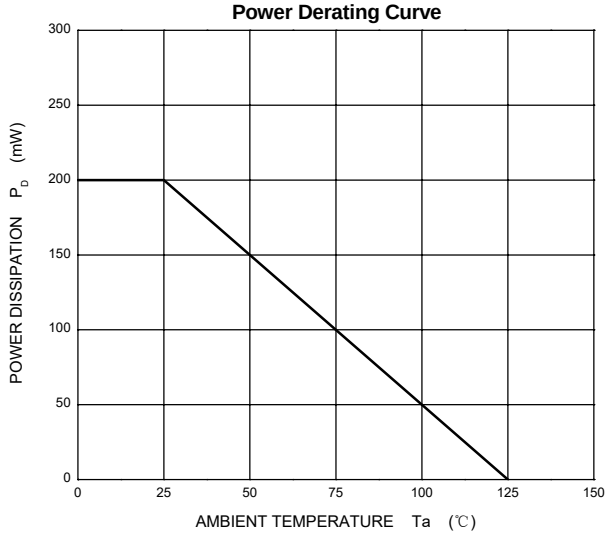
Reverse Characteristics

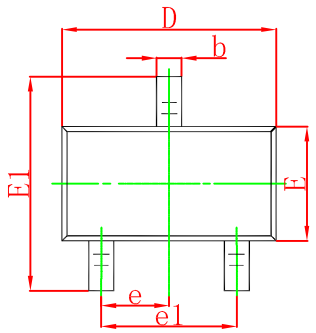


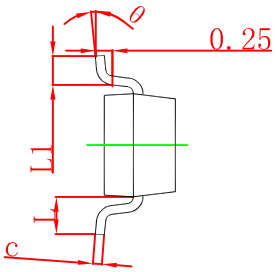
Capacitance Characteristics

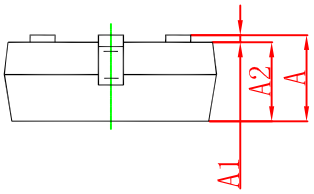


Power Derating Curve



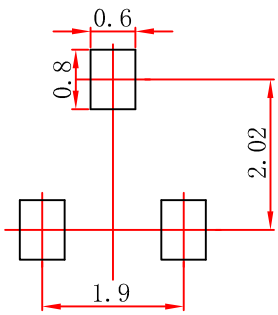






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.