

SOT-323 Switching Diode 开关二极管

Internal Configuration 内部结构



Features 特点

Characteristic 特性参数	Symbol 符号	Max 最大值	Unit 单位
Power dissipation 耗散功率	$P_D(T_a=25^{\circ}\text{C})$	200	mW
Forward Current 正向电流	I_F	150	mA
Non-Repetitive Peak Forward Current 不重复峰值正向电流	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms 不重复峰值正向浪涌电流	I_{FSM}	2000	mA
Reverse Voltage 反向电压	V_R	75	V
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}\text{C}$	

Device Marking 产品打标

BAV99W=KJG

Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位
Reverse Breakdown Voltage 反向击穿电压($I_R=100\mu\text{A}$)	$V_{(BR)}$	75	—	V
Reverse Leakage Current($V_R=25\text{V}$) 反向漏电流($V_R=75\text{V}$)	I_R	—	25 2.5	nA μA
Forward Voltage($I_F=1\text{mA}$) 正向电压($I_F=10\text{mA}$) ($I_F=50\text{mA}$) ($I_F=150\text{mA}$)	V_F	—	0.715 0.855 1.00 1.25	V
Diode Capacitance 二极管电容($V_R=0\text{V}$, $f=1\text{MHz}$)	C_D	—	2	pF
Reverse Recovery Time 反向恢复时间	T_{rr}	—	4	nS

■ Typical Characteristic Curve 典型特性曲线

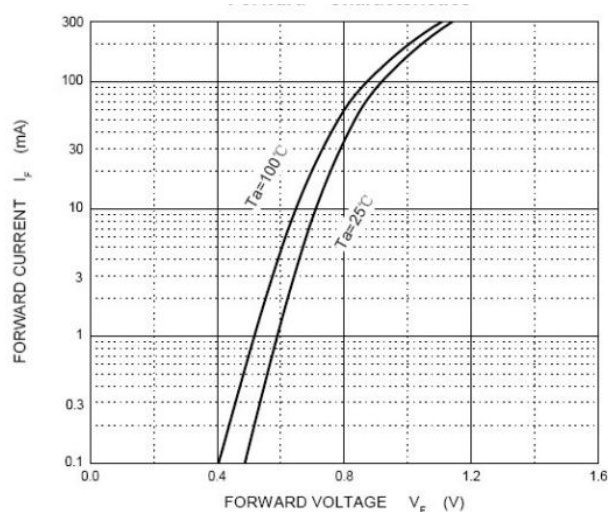


Figure 1: Forward Characteristics

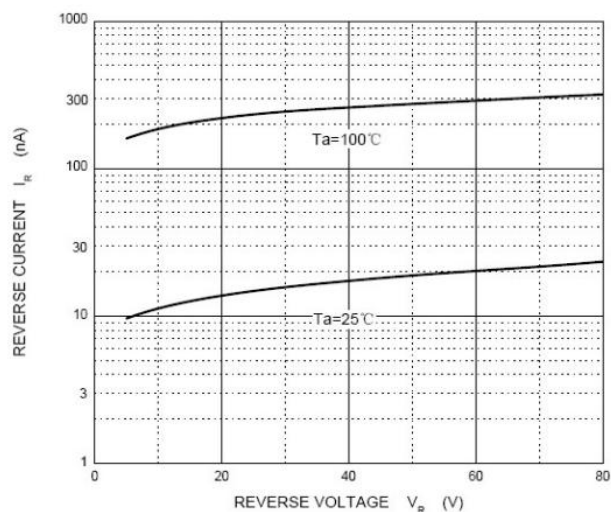


Figure 2: Leakage Current

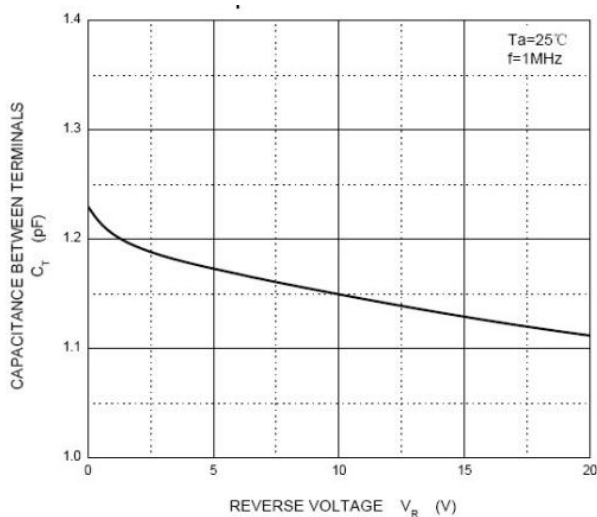


Figure 3: Capacitance Characteristics

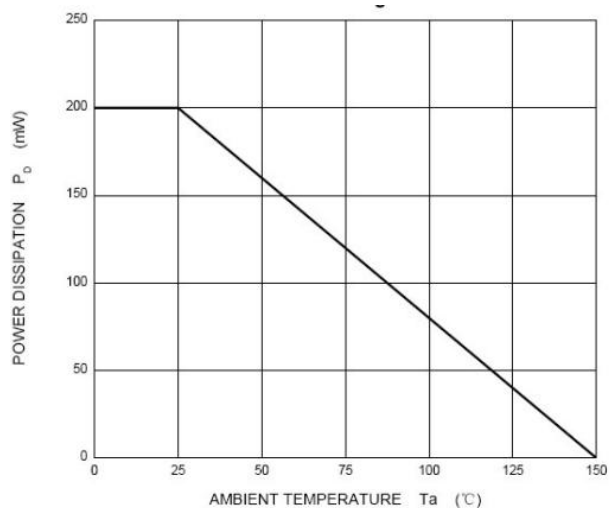
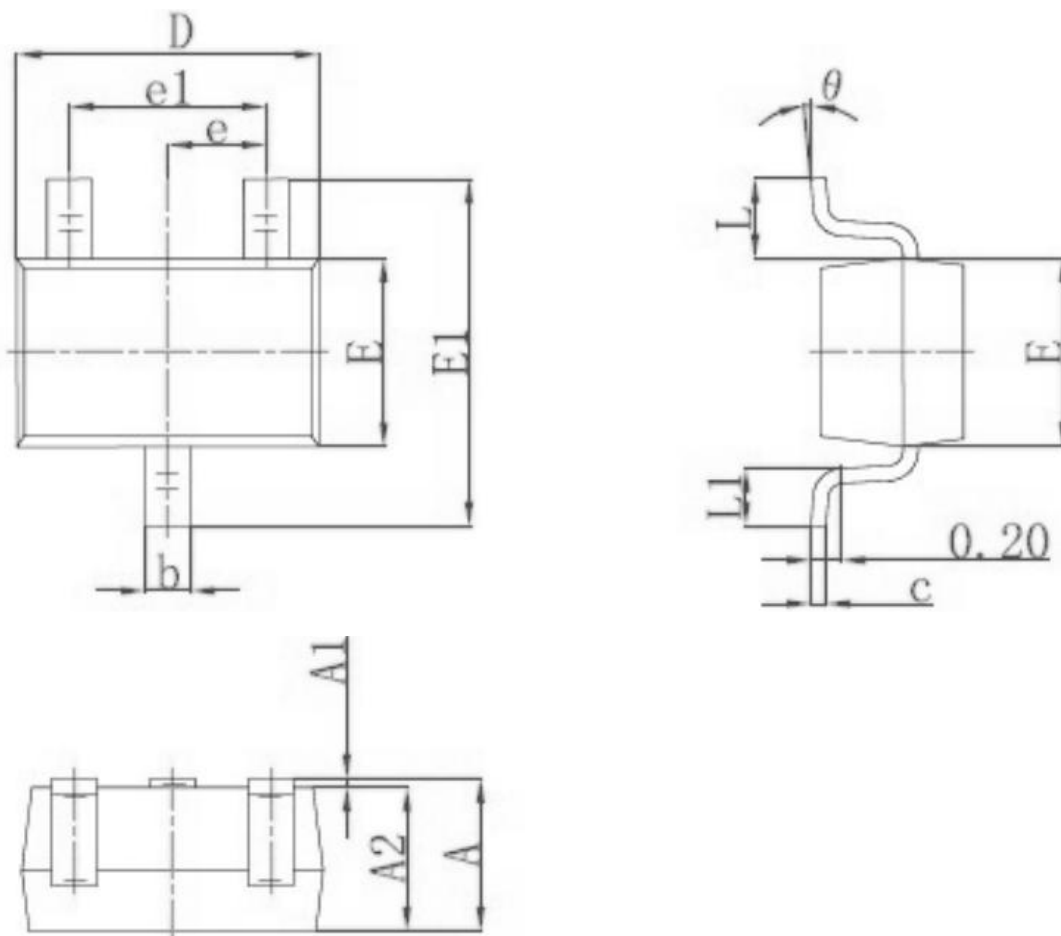


Figure 4: Power Derating Curve

■Dimension 外形封装尺寸



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°