

SOT-23 SCR 可控硅

■ Features 特点

PNPN Silicon Controllable rectifier 硅可控整流器

Sensitive Gate Trigger 灵敏的门极触发

Glass passivated Process 玻璃钝化工艺

■ Applications 应用

General Purpose Switching 通用开关

Solid State Relay 固态继电器

Phase Control 相位控制

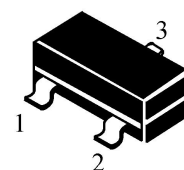


SOT-23

1. Cathod (K)

2. Gate (G)

3. Anode (A)



■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Value 额定值	Unit 单位
Peak Repetitive Off-State Voltage (T _J =-40°C to 110°C, Sine Wave, 50 to 60 Hz, Gate Open) 峰值可重复断态耐压	V _{DRM} , V _{RRM}	MCR100-4 200 MCR100-6 400 MCR100-8 600	V
On-State RMS Current 通态均方根电流	I _{T(RMS)}	0.8	A
On-State Average Current 通态平均电流	I _{T(AV)}	0.5	A
Peak Non-Repetitive Surge Current @25°C 峰值不可重复浪涌电流	I _{TSM}	8	A
Circuit Fusing Considerations(t=10ms) 电路保险指数	I ² t	0.35	A ² s
Peak Gate Current-Forward (Pulse Width ≤1 us) 正向门极峰值电流	I _{GM}	1	A
Peak Gate Voltage-Reverse (Pulse Width ≤ 1 μs) 反向门极峰值电压	V _{GRM}	5	V
Forward Peak Gate Power (Pulse Width ≤ 1 μs) 正向门极峰值功率	P _{GM}	0.1	W
Forward Average Gate Power (t=8.3ms) 正向门极平均功率	P _{G(AV)}	0.1	W
Operating Junction/Storage Temperature 结温和储存温度	T _{stg}	-40~125	°C

■Electrical Characteristics 电特性

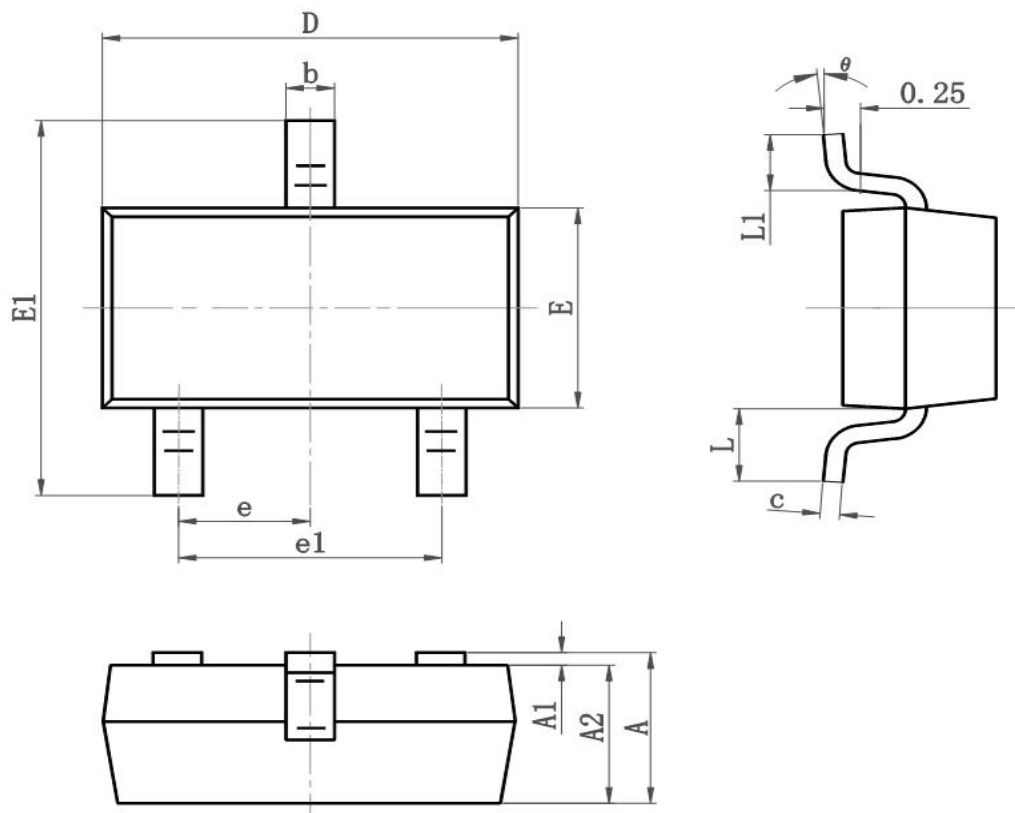
 (T_A=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

Characteristic Parameters 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位	Condition 条件
Peak Forward Blocking Current 峰值正向漏电流	I _{DRM}	T _c =25℃ T _c =110℃	5 100	μA	V _D =V _{DRM}
Peak Reverse Blocking Current 峰值反向漏电流	I _{RRM}	T _c =25℃ T _c =110℃	5 100	μA	V _R =V _{RRM}
Peak Forward On-State Voltage 峰值正向通态电压	V _{TM}		1.6	V	I _{TM} =1A
Gate Trigger Current 触发电流	I _{GT}	10	35	μA	V _{AK} =7V
Gate Trigger Voltage 触发电压	V _{GT}		0.8	V	I _{TM} =0.8A
Holding Current 维持电流	I _H		3	mA	I _T =50mA
Latch Current 擎住电流	I _L		5	mA	I _G =1.2I _{GT}
Off-state Voltage Change 断态电压临界上升率	dv/dt	10		V/μS	V _D =2/3V _{DRM}
Gate Nun Trigger Voltage 门极不触发电压	V _{GD}	0.1		V	V _D =V _{DRM}

■Device Marking 产品打标

Type	MCR100-4	MCR100-6	MCR100-8
Mark	100-4	100-6	100-8

■ Dimension 外形封装尺寸



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	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°