

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

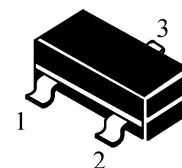
Phase Control 相位控制

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}	400	V
On-State RMS Current 通态均方根电流	I _{T(RMS)}	0.6	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}	6	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

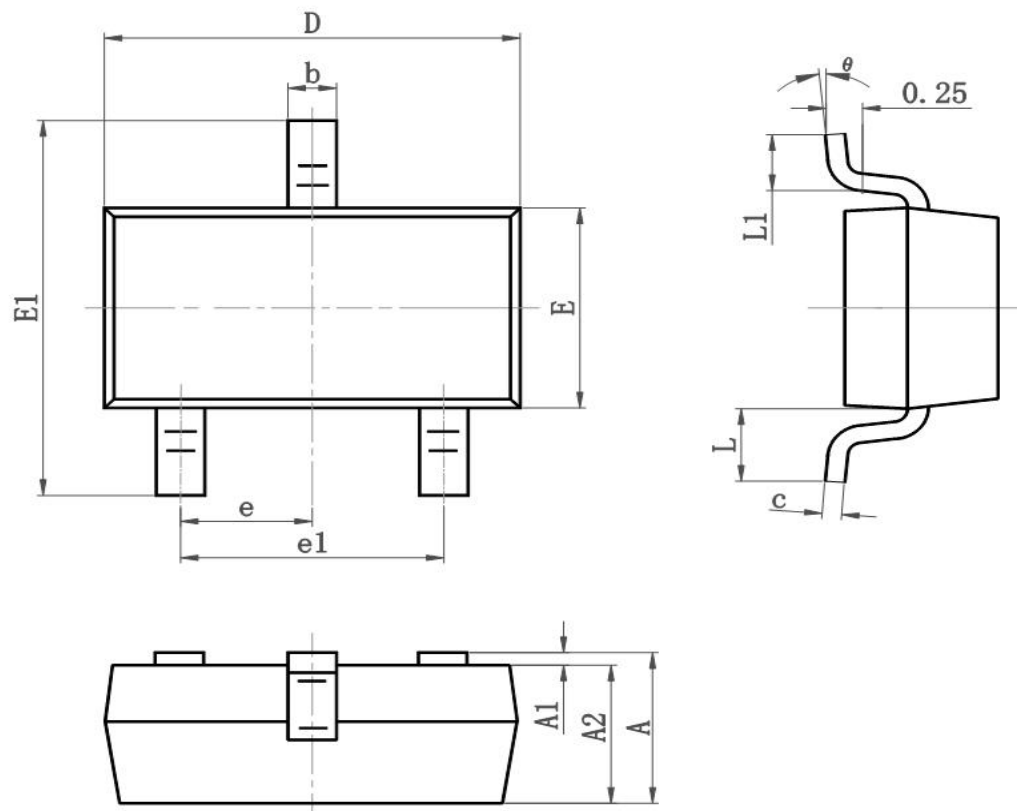
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}	$T_c=25^{\circ}\text{C}$ $T_c=125^{\circ}\text{C}$	10 100	μA	$V_D=V_{\text{DRM}}$
Peak Reverse Blocking Current 峰值反向漏电流	I_{RRM}	$T_c=25^{\circ}\text{C}$ $T_c=125^{\circ}\text{C}$	10 100	μA	$V_R=V_{\text{RRM}}$
Peak Forward On-State Voltage 峰值正向通态电压	V_{TM}		1.7	V	$I_{\text{TM}}=0.6\text{A}$
Gate Trigger Current 触发电流	I_{GT}		150	μA	$V_{\text{AK}}=12\text{V}$
Gate Trigger Voltage 触发电压	V_{GT}		1.2	V	$V_{\text{AK}}=12\text{V}$
Holding Current 维持电流	I_{H}		5	mA	$I_{\text{T}}=50\text{mA}$
Latch Current 擎住电流	I_{L}		10	mA	$I_{\text{G}}=1.2I_{\text{GT}}$
Off-state Voltage Change 断态电压临界上升率	dv/dt	20		$\text{V}/\mu\text{S}$	$V_D=2/3V_{\text{DRM}}$
On-state Current Change 通态电流临界上升率	di/dt		50	$\text{A}/\mu\text{S}$	$I_{\text{GT}}=20\text{mA}$

■ Device Marking 产品打标

Type	PCR406
Mark	406

■ 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°