

## SOT-89 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

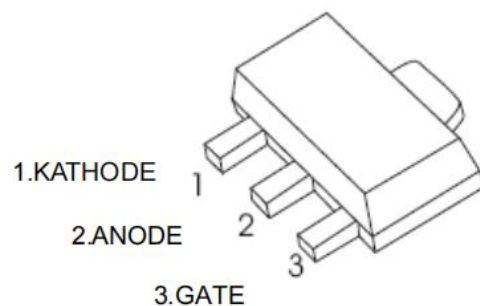
Glass passivated Process 玻璃钝化工艺

### ■ Applications 应用

General Purpose Switching 通用开关

Solid State Relay 固态继电器

Phase Control 相位控制



### ■ 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 ( $T_J = -40^\circ\text{C}$ to $110^\circ\text{C}$ , Sine Wave, 50 to 60 Hz, Gate Open) 峰值可重复断态耐压	$V_{\text{DRM}}, V_{\text{RRM}}$	MCR100-6F 400 MCR100-8F 600	V
On-State RMS Current 通态均方根电流	$I_{\text{T(RMS)}}$	0.8	A
On-State Average Current 通态平均电流	$I_{\text{T(AV)}}$	0.5	A
Peak Non-Repetitive Surge Current @25°C 峰值不可重复浪涌电流	$I_{\text{TSM}}$	9	A
Circuit Fusing Considerations (t=10ms) 电路保险指数	$I^2t$	0.35	A <sup>2</sup> s
Peak Gate Current-Forward (Pulse Width ≤ 1 us) 正向门极峰值电流	$I_{\text{GM}}$	1	A
Peak Gate Voltage-Reverse (Pulse Width ≤ 1 μs) 反向门极峰值电压	$V_{\text{GRM}}$	5	V
Forward Peak Gate Power (Pulse Width ≤ 1 μs) 正向门极峰值功率	$P_{\text{GM}}$	0.1	W
Forward Average Gate Power (t=8.3ms) 正向门极平均功率	$P_{\text{G(AV)}}$	0.1	W
Operating Junction/Storage Temperature 结温和储存温度	$T_{\text{stg}}$	-40~125	°C

■ **Electrical Characteristics** 电特性

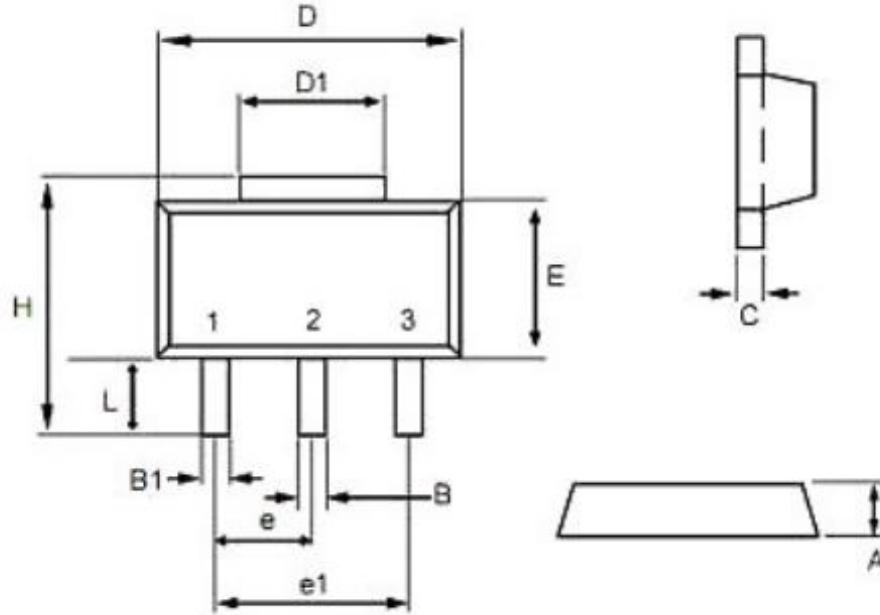
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

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	$I_{DRM}$	$T_c=25^{\circ}\text{C}$ $T_c=110^{\circ}\text{C}$	5 100	$\mu\text{A}$	$V_D=V_{DRM}$ $R_{GK}=1\text{K}\Omega$
Peak Reverse Blocking Current 峰值反向漏电流	$I_{RRM}$	$T_c=25^{\circ}\text{C}$ $T_c=110^{\circ}\text{C}$	5 100	$\mu\text{A}$	$V_R=V_{RRM}$ $R_{GK}=1\text{K}\Omega$
Peak Forward On-State Voltage 峰值正向通态电压	$V_{TM}$		1.6	V	$I_{TM}=1\text{A}$
Gate Trigger Current 触发电流	$I_{GT}$	5	200	$\mu\text{A}$	$V_{AK}=7\text{V}$
Gate Trigger Voltage 触发电压	$V_{GT}$		0.8	V	$I_{TM}=0.8\text{A}$
Holding Current 维持电流	$I_H$		3	mA	$I_T=50\text{mA}$
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/ $\mu\text{S}$	$V_D=2/3V_{DRM}$
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	MCR100-6F	MCR100-8F
Mark	100-6	100-8

■ Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.40	1.60	0.055	0.063
B	0.40	0.56	0.016	0.022
B1	0.35	0.48	0.014	0.019
C	0.35	0.44	0.014	0.017
D	4.40	4.60	0.173	0.181
D1	1.35	1.83	0.053	0.072
e	1.45	1.55	0.057	0.061
e1	2.95	3.05	0.116	0.120
E	2.29	2.60	0.090	0.102
H	3.75	4.25	0.148	0.167
L	0.80	1.20	0.031	0.047