反向阻断三极晶闸管

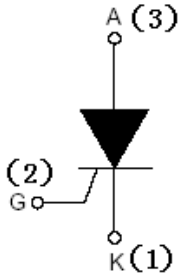
REVERSE BLOCKING TRIODE THYRISTORS(SCR)

MCR100-8B

主要参数 MAIN CHARACTERISTICS

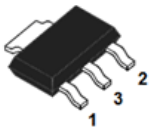
$I_{T(RMS)}$	1A
V_{DRM}/V_{RRM}	900V
I_{GT}	10-100μA

封装 Package



序号 Pin	引线名称 Description	
1	阴极	K
2	门极	G
3	阳极	A

SOT-223



SOT-223-2L

用途 APPLICATIONS

- ●半交流开关
- ●相位控制

- ●Half AC switching
- ●Phase control

产品特性 FEATURES

- ● 玻璃钝化芯片，高可靠性和一致性
- ● 低通态电流和高浪涌电流能力
- ● 环保 RoHS 产品

- ● Glass-passivated mesa chip for high reliability and uniform
- ● Low on-state voltage and High I_{TSM}
- ● RoHS products

- ● 芯片面积 1.36mm*1.36mm（锯片后最小面积 1.30mm*1.30mm）

订货信息 ORDER MESSAGES

有卤-编带	无卤-编带	有卤-袋装	印 记 Marking	封 装 Package
Halogen-Reel	Halogen-Free-Reel	Halogen-Bag		
MCR100-8B--NL-A	N/A	N/A	MCR100-8	SOT-223-2L
MCR100-8B-NC-A	N/A	N/A	MCR100-8	SOT-223

绝对最大额定值 ABSOLUTE RATINGS (T_C=25℃)

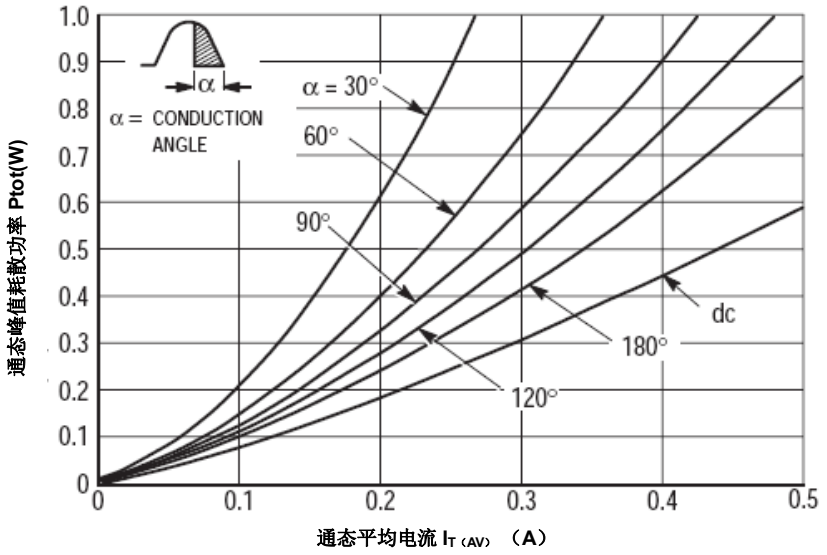
项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单位 Unit
断态重复峰值电压 Repetitive peak off-state voltage	V_{DRM}		900	V
反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}		900	V
Non -Repetitive peak off-state voltage	V_{DSM}		950	V
Non -Repetitive peak reverse voltage	V_{RSM}		950	V
通态平均电流 Average on-state current	$I_{T(AV)}$		0.6	A
通态方均根电流 On-state RMS current	$I_{T(RMS)}$		1.0	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current	I_{TSM}	half sine cycle (t=10ms)， Tj=25℃	12	A
熔断 I^2t I^2t for fusing	I^2t	half sine wave，t=10ms	0.72	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after riggering	dI/dt	ITM=2.0A, IG=0.02A,dIG/dt=1.0A/μs	50	A/μs
峰值门极电流 Peak gate current	I_{GM}	tp=20us,Tj=110℃	1	A
平均门极功率 Average gate power	$P_{G(AV)}$	tp=20us,Tj=110℃	0.1	W
存储温度 Storage temperature	T_{stg}		-40~150	℃
操作结温 Operation junction temperature	T_{VJ}		-40~125	℃

电特性 ELECTRICAL CHARACTERISTIC (T_C=25℃)

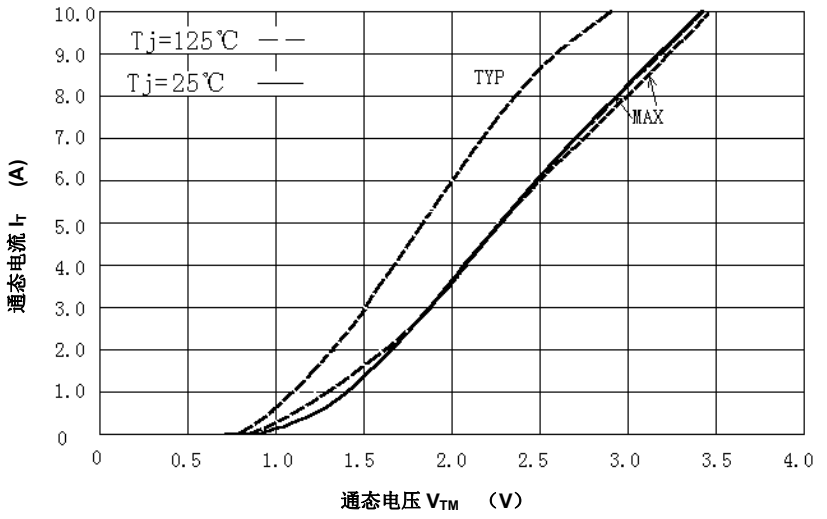
项　　目 Parameter	符　号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
断态峰值重复电流 Peak Repetitive Blocking Current	I_{DRM}	V_{DM}=V_{DRM}, Tj=125℃, R_{GK}=1KΩ	-	-	0.1	mA
反向峰值重复电流 Peak Repetitive Reverse Current	I_{RRM}	V_{RM}=V_{RRM}, Tj=125℃, R_{GK}=1KΩ	-	-	0.1	mA
峰值通态电压 Peak on-state voltage	V_{TM}	I_{TM}=1A	-	—	1.7	V
门极触发电流 Gate trigger current	I_{GT}	V_{AK}=12V,R_L=33Ω	10	-	100	μA
门极触发电压 Gate trigger voltage	V_{GT}	V_{AK}=12V,R_L=33Ω	-	0.6	0.8	V
维持电流 Holding current	I_H	V_{AK}=12V, I_T=0.1A	-	-	5	mA
擎住电流 Latch current	I_L	V_{AK}=12V,I_T=0.1A	-	-	5	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V_{DM}=2/3V_{DRM}, Tj=110℃,R_{GK}=1KΩ	50	100		V/μs

特征曲线　ELECTRICAL CHARACTERISTICS (curves)

P_{tot} - $I_{T(AV)}$

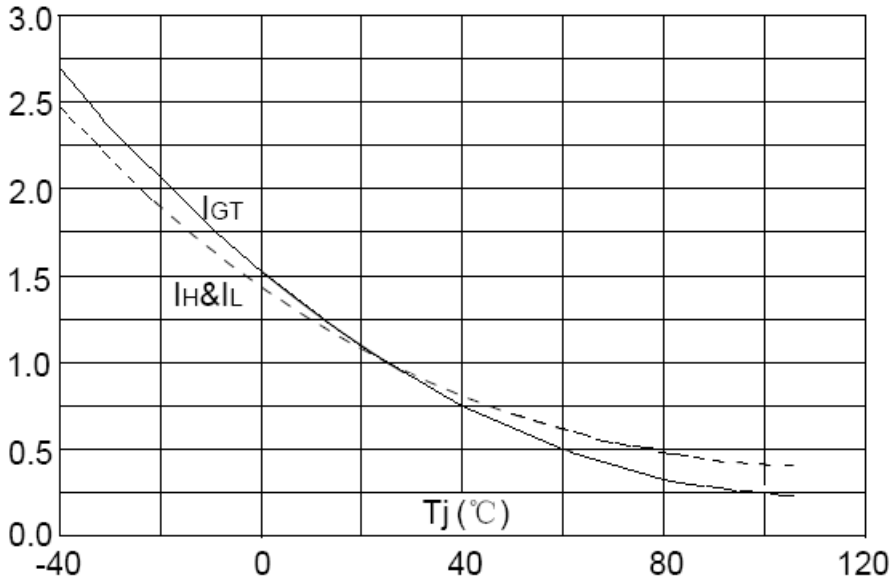


I_T – V_{TM}



Relative variations of gate trigger cuiient ,holding current and latching current versus junction temperature。

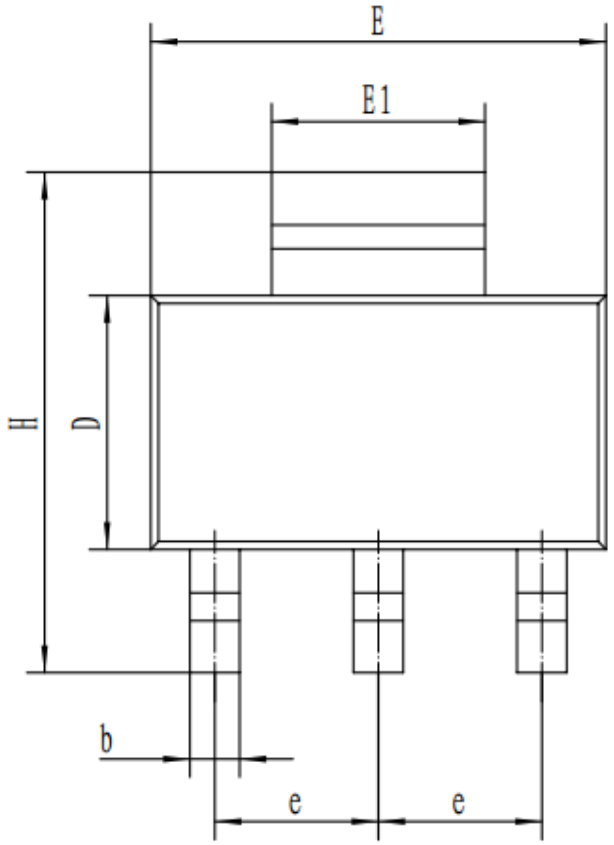
IGT,IH,IL/IGT,IH,IL(Tj=25℃)

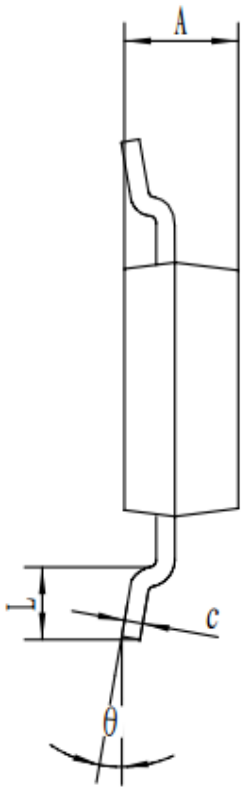


外形尺寸 PACKAGE MECHANICAL DATA

SOT-223

单位Unit ： mm



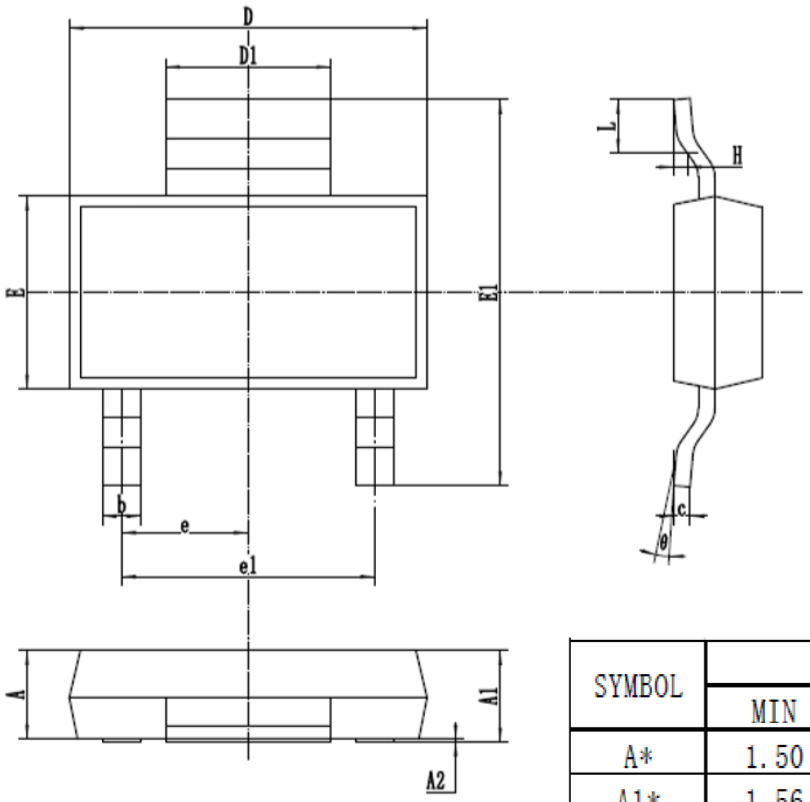


A	1.50-1.70
A1	0.02-0.10
b	0.60-0.80
c	0.24-0.31
D	3.30-3.70
E	6.30-6.50
E1	2.90-3.10
e	2.30 type
H	6.75-7.05
L	0.80-1.20
θ	0° -10°

外形尺寸 PACKAGE MECHANICAL DATA

SOT-223-2L

单位 Unit ： mm



SYMBOL	mm		
	MIN	NOR	MAX
A*	1.50	1.60	1.70
A1*	1.56	1.66	1.76
A2	0.02	-	0.10
b*	0.65	0.70	0.75
c*	0.25	0.30	0.35
D*	6.35	6.50	6.65
D1*	2.85	3.00	3.15
E*	3.35	3.50	3.65
E1*	6.85	7.00	7.15
e*	2.30 BASIC		
e1*	4.60 BASIC		
L*	0.75	0.95	1.15
H*	0.20	0.25	0.30
θ	-	-	10°

注：*标注为检验项目。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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