



# CS1200M5A

## 主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	1.25A
$V_{DRM}/V_{RRM}$	600V
$I_{GT}$	10-200 $\mu$ A

## 用途

- 半交流开关
- 相位控制

## 产品特性

- 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

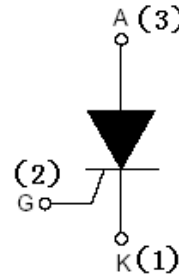
## APPLICATIONS

- Half AC switching
- Phase control

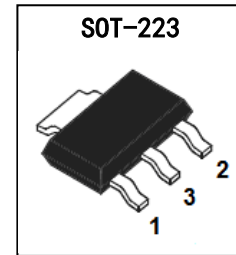
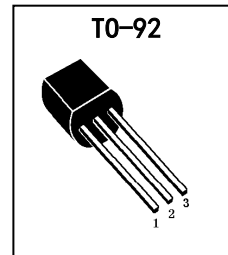
## FEATURES

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

## 封装 Package



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



## 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		
CS1100N5B-NC-A	CS1100N5B-NC-AR	N/A	CS1100N5B	SOT-223



绝对最大额定值 ABSOLUTE RATINGS ( $T_c=25^\circ\text{C}$ )

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
断态（反向）重复峰值电压 Repetitive peak off-state (reverse) voltage	$V_{DRM}$ $V_{RRM}$		600	V
通态平均电流 Average on-state current	$I_{T(AV)}$		0.8	A
通态方均根电流 On-state RMS current	$I_{T(RMS)}$		1.25	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	$I_{TSM}$	half sine wave, $t=20\text{ms}$	25	A
熔断 $I^2t$ $I^2t$ for fusing	$I^2t$	half sine wave, $t=10\text{ms}$	2.5	$\text{A}^2\text{s}$
通态电流临界上升率 Repetitive rate of rise of on-state current after rigging	$di/dt$	$I_{TM}=2.5\text{A}$ , $I_G=0.02\text{A}$ , $dI_G/dt=1.0\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	$I_{GM}$		1	A
平均门极功率 Average gate power	$P_{G(AV)}$	over any 20ms period	0.1	W
存储温度 Storage temperature	$T_{stg}$		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	$T_{VJ}$		-40~125	$^\circ\text{C}$



电特性 ELECTRICAL CHARACTERISTIC (T<sub>C</sub>=25°C)

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 <sub>DRM</sub>	V <sub>DM</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C, R <sub>GK</sub> =1KΩ	-	-	0.2	mA
反向峰值重复电流 Peak Repetitive Reverse Current	I <sub>RPM</sub>	V <sub>RM</sub> =V <sub>RPM</sub> , T <sub>j</sub> =125°C, R <sub>GK</sub> =1KΩ	-	-	0.2	mA
峰值通态电压 Peak on-state voltage	V <sub>TM</sub>	I <sub>TM</sub> =2.5A	-	—	1.45	V
门极触发电流 Gate trigger current	I <sub>GT</sub>	V <sub>AK</sub> =12V, R <sub>L</sub> =100Ω	10	-	200	μA
门极触发电压 Gate trigger voltage	V <sub>GT</sub>	V <sub>AK</sub> =12V, R <sub>L</sub> =100Ω	-	-	0.8	V
维持电流 Holding current	I <sub>H</sub>	V <sub>AK</sub> =12V, Initiating Current = 20 mA	-	-	5	mA
擎住电流 Latch current	I <sub>L</sub>	V <sub>AK</sub> =7V, I <sub>T</sub> =200μA	-	-	6	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V <sub>DM</sub> =100% V <sub>DRM(MAX)</sub> , T <sub>j</sub> =125°C, R <sub>GK</sub> =1KΩ	10		-	V/μs

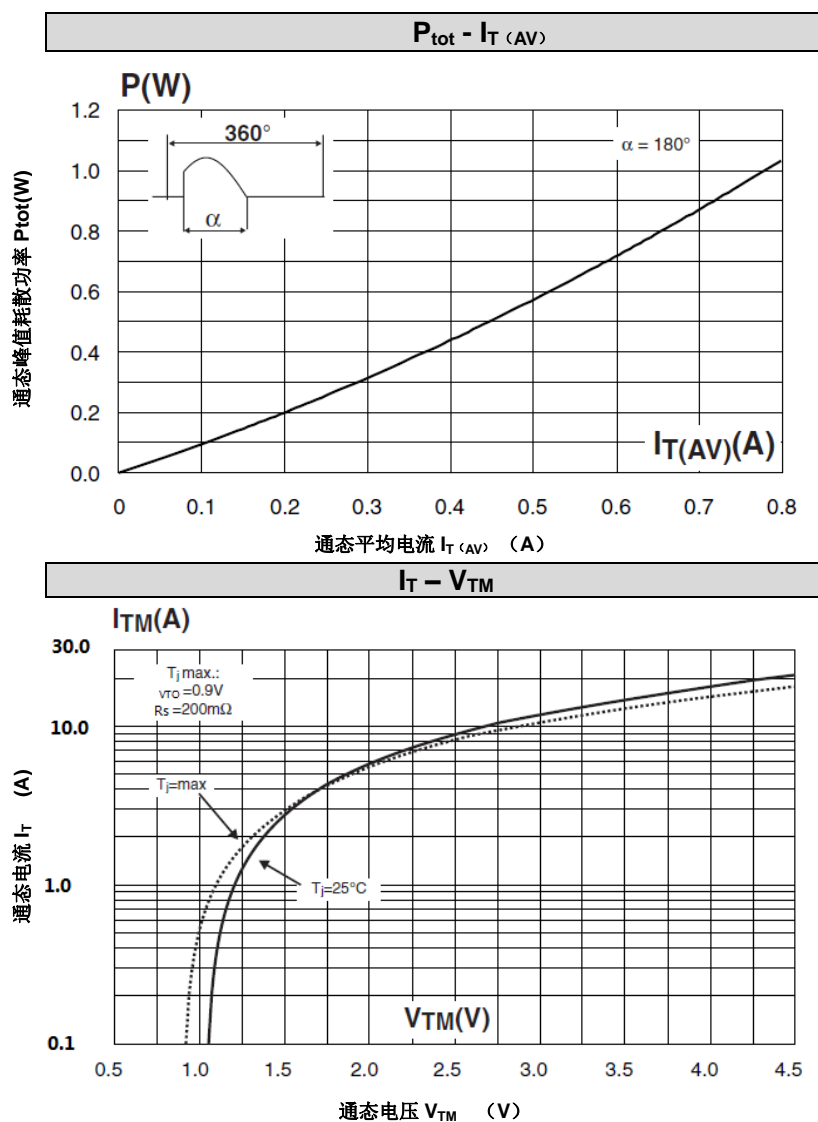
## 热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到引线的热阻 Thermal resistance junction to tab	R <sub>th(j-t)</sub>	half cycle (SOT-223)	-	-	25	°C/W
结到环境的热阻 Thermal resistance junction to ambient	R <sub>th(j-a)</sub>	half cycle (SOT-223)	-	-	60	°C/W





## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

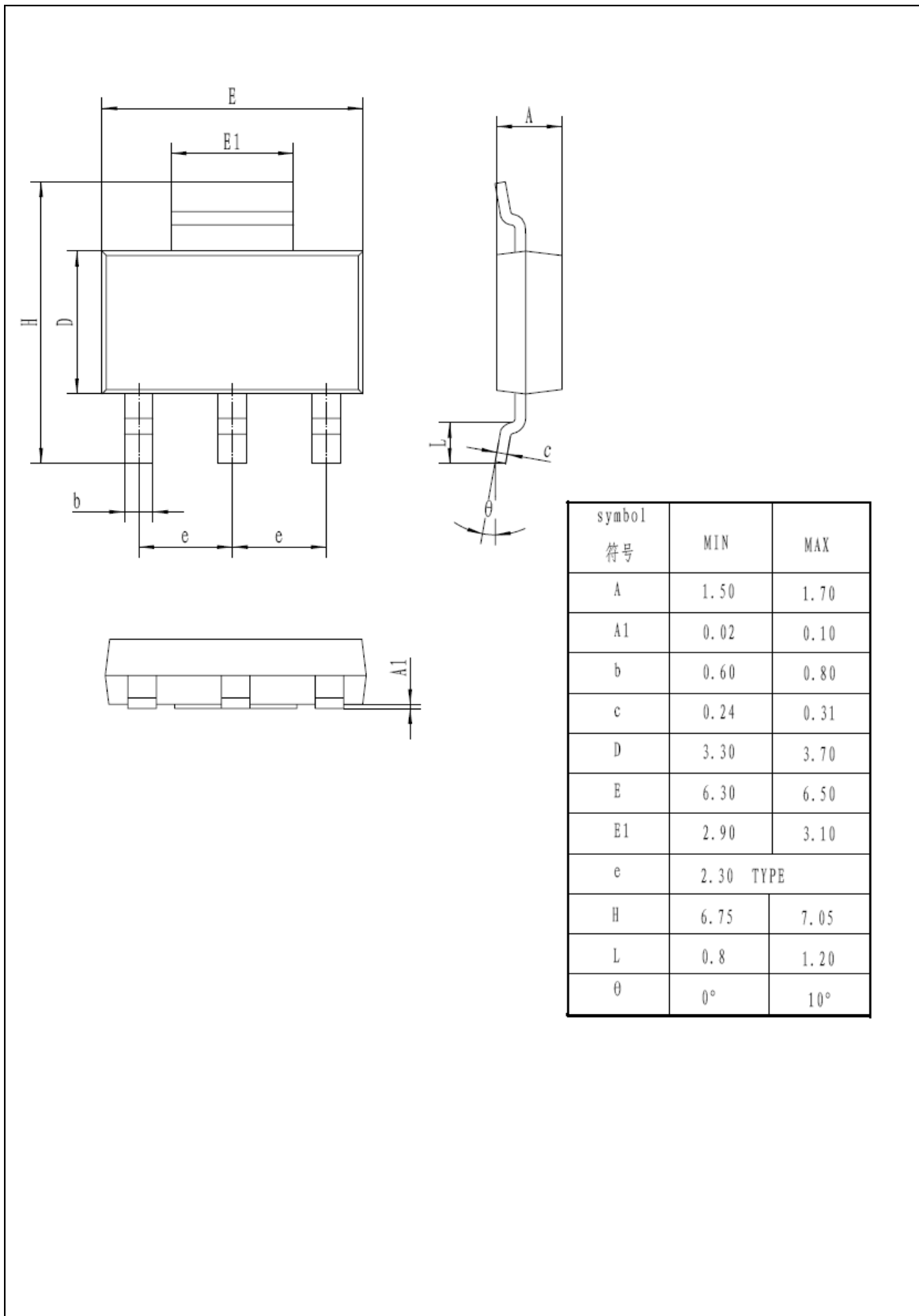




## 外形尺寸 PACKAGE MECHANICAL DATA

SOT-223

单位 Unit : mm





### 注意事项

1. 吉林华微电子股份有限公司的产品销售分为直销和销售代理，无论哪种方式，订货时请与公司核实。
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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知。

### NOTE

1. Jilin Sino-microelectronics co., Ltd sales its product either through direct sales or sales agent , thus, for customers, when ordering , please check with our company.
2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this. specification sheet and is subject to change without prior notice.

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