



BT169D

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	0.8A
V_{DRM}/V_{RRM}	600V
I_{GT}	200 μ A

用途

- 半交流开关
- 相位控制

APPLICATIONS

- Half AC switching
- Phase control

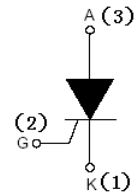
产品特性

- 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

FEATURES

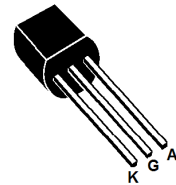
- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

封装 Package

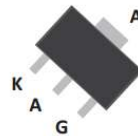


序号 Pin	引线名称 Description
1	阴极 K
2	门极 G
3	阳极 A

TO-92



SOT-89



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	无卤素 Halogen Free	封装 Package	包装 Packaging
BT169D-O-T-N-C	3CT06B	含卤	TO-92	袋装 Bag
BT169D-O-T-B-A	3CT06B	含卤	TO-92	编带 Brede
BT169D-O-O-N-A	3CT06B	含卤	SOT-89	编带 Brede





绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C)

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
断态重复峰值电压 Repetitive peak off-state voltage	V _{DRM}	600	V
反向重复峰值电压 Repetitive peak reverse voltage	V _{RRM}	600	V
通态平均电流 Average on-state current	I _{T(AV)}	0.5	A
通态方均根电流 On-state RMS current (half sine wave)	I _{T(RMS)}	0.8	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current (half sine wave, t=20ms)	I _{TSM}	8	A
峰值门极电流 Peak gate current	I _{GM}	0.5	A
平均门极功率 Average gate power(over any 20ms period)	P _{G(AV)}	0.1	W
存储温度 Storage temperature	T _{stg}	-40~150	°C
操作结温 Operation junction temperature	T _{VJ}	125	°C

电特性 ELECTRICAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	测试条件 Tests conditions	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} , T _j =125°C, R _{GK} =1KΩ	-	-	0.1	mA
反向峰值重复电流 Peak Repetitive Reverse Current	I _{RRM}	V _{RM} =V _{RRM} , T _j =125°C, R _{GK} =1KΩ	-	-	0.1	mA
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =2A	-	-	1.8	V
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, I _T =0.1A	10	-	140	μA
门极触发电压 Gate trigger voltage	V _{GT}	V _{DM} =12V, I _T =0.1A	-	0.65	0.8	V
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =1mA	-	-	5	mA
断态临界电压上升率 Rise of off-state voltage	dV/dt	V _{DM} =67% V _{DRM(MAX)} , T _j =125°C, R _{GK} =1KΩ	10	-	-	V/μs

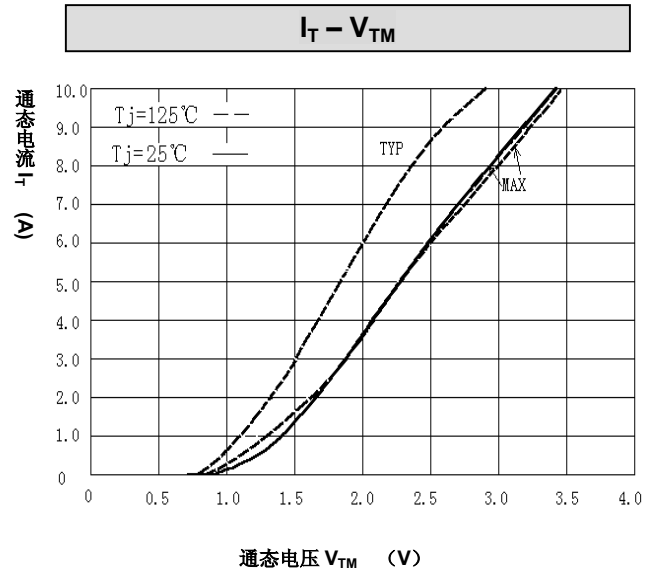
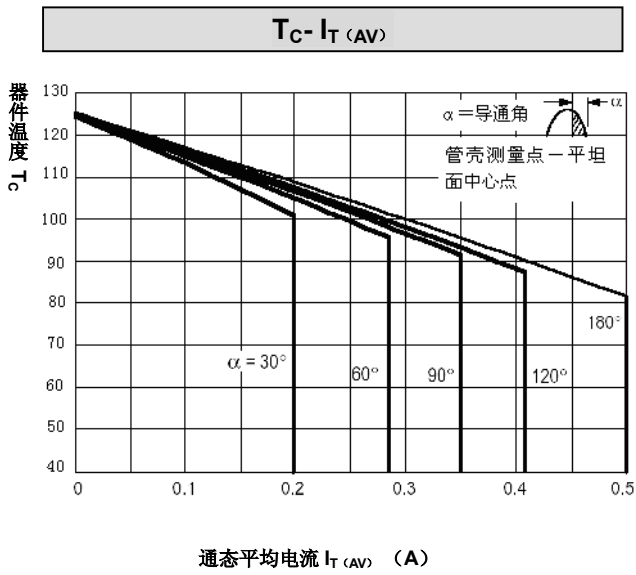
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	值 value	单 位 Unit
结到引线的热阻 Thermal resistance junction to lead	TO-92	R _{th(j-l)}	60
结到表面的热阻 Thermal resistance junction to tab	SOT-89	R _{th(j-t)}	20
结到环境的热阻 Thermal resistance junction to ambient	--	TO-92	150
	S=5cm ²	SOT-89	40





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

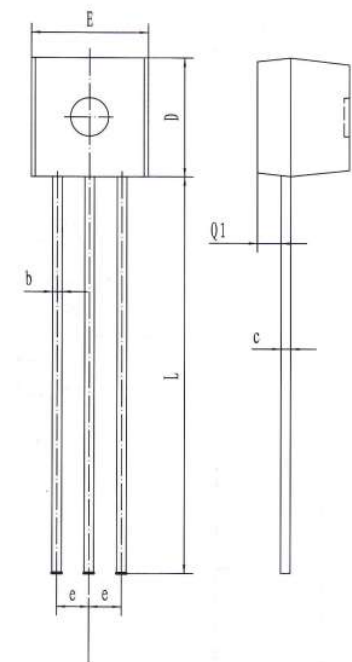




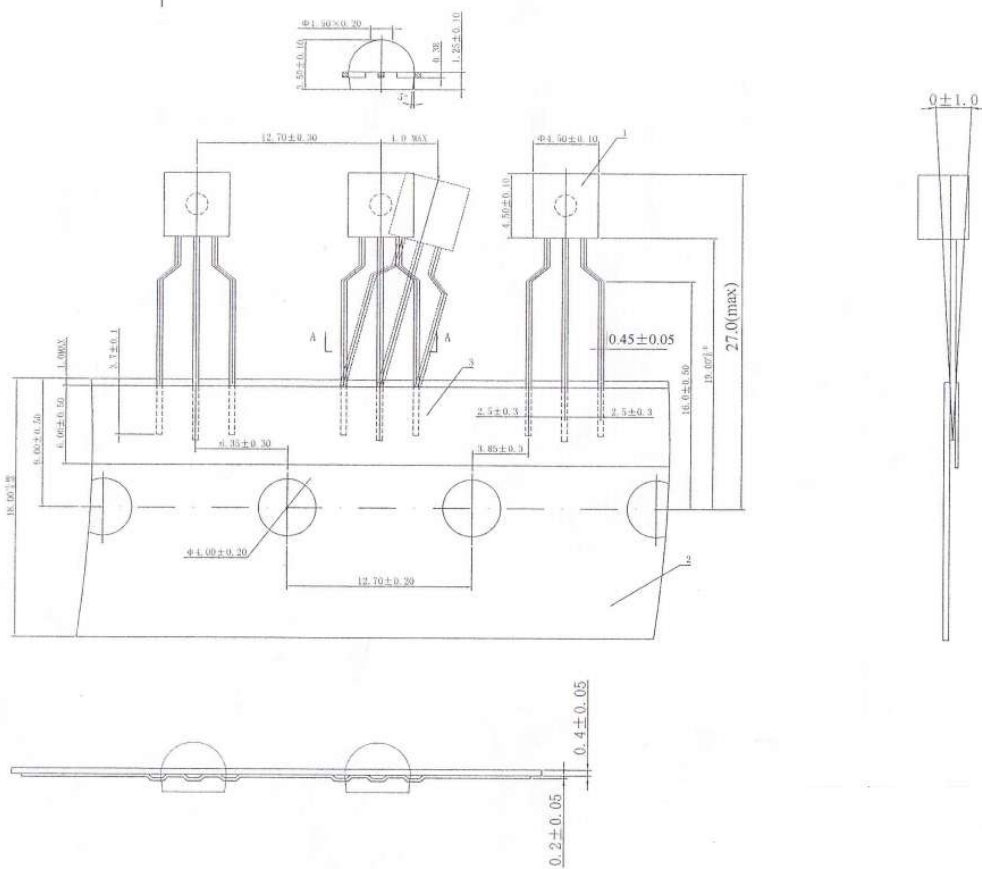
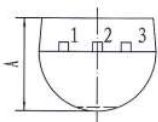
外形尺寸 PACKAGE MECHANICAL DATA

TO-92

单位 Unit : mm



A	3.30-3.90
b	0.35-0.55
c	0.31-0.51
D	4.30-4.90
E	4.30-4.90
e	1.17-1.37
L	12.50-15.50
Q1	0.85-1.00



**注意事项**

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- 2.购买时请认清公司商标，如有疑问请与公司本部联系。
- 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

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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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附录 (Appendix)：修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes
2009-11-3	200901C	200911D	中英文格式改版，修改电话号码
2015-9-15	200911D	201509E	增加产品外形

