

3CT08B



TO-92 Sensitive Gate SCRs

主要参数 MAIN CHARACTERISTICS

$I_{T(AV)}$	0.8 A
V_{DRM}/V_{RRM}	800 V
I_{GT}	10-100 μ A

用途

- 半交流开关
- 相位控制

APPLICATIONS

- Half AC switching
- Phase control

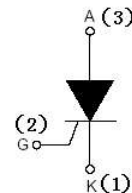
产品特性

- 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

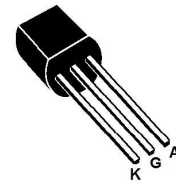
- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

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



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
3CT08B -O-T-N-C	3CT08B	否 NO	TO-92	袋装 Bag
3CT08B -O-T-B-A	3CT08B	否 NO	TO-92	编带 Brede

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绝对最大额定值 ABSOLUTE RATINGS (T_c=25℃)

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}	800	V
反向重复峰值电压 Repetitive peak reverse voltage	V _{RRM}	800	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 (half sine wave)	I _{T(RMS)}	1.2	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current (half sine wave ,t=10ms)	I _{TSM}	12	A
I ² t for fusing (t=10ms)	I ² t	0.72	A ² s
门极峰值电流 Peak gate current	I _{GM}	1	A
门极峰值电压 Peak gate voltage	V _{GM}	5	V
反向门极峰值电压 Peak reverses gate voltage	V _{RGM}	5	V
门极峰值功率 Peak gate power	P _{GM}	2	W
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	℃
操作结温 Operation junction temperature	T _J	125	℃

电特性 ELECTRICAL CHARACTERISTIC (T_c=25℃ unless otherwise stated)

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℃, 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℃, 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 _{DM} =12V, I _T =0.1A	10	-	100	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	-	-	1	mA

动态特性 DYNAMIC CHARACTERISTICS (T_c=25℃ unless otherwise stated)

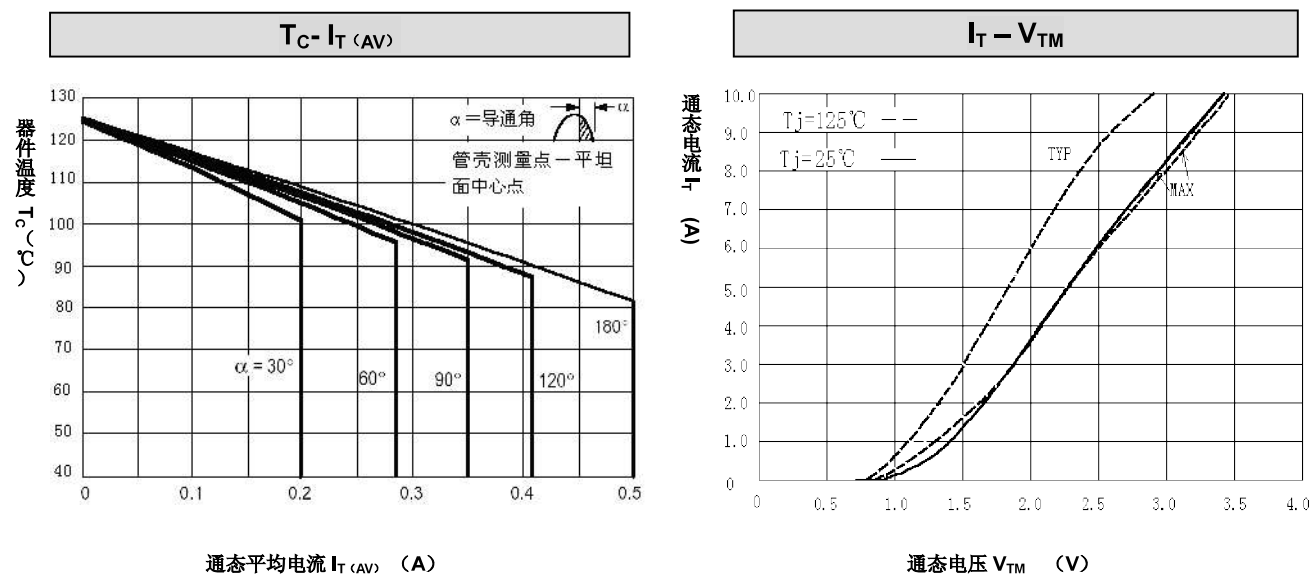
项 目 Parameter	符号 Symbol	测试条件 Tests conditions	最小 min	典型 typ	最大 max	单位 Unit
断态临界电压上升率 Critical rate of rise of off- state voltage	dV/dt	V _{DM} =67% V _{DRM(MAX)} , T _j =125℃, R _{GK} =1KΩ	10	-	-	V/μs
换向关断时间 Circuit commutaded turn-off time	t _q	V _{DM} =67V _{DRM} , T _j =125℃, V _R =35V, I _{TM} =1.6A, dI _{TM} /dt=30A/μs, dV/dt=2V/μs, R _{GK} =1KΩ	-	100	-	μs

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热特性 THERMAL CHARACTERISTIC

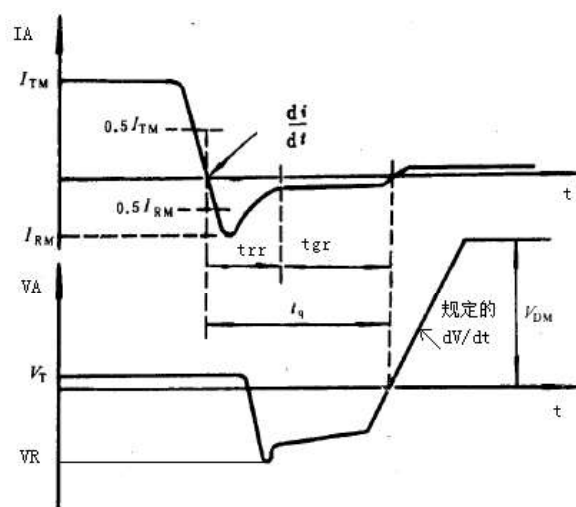
项 目 Parameter	符 号 Symbol	值 value	单 位 Unit
结到引线的热阻 Thermal resistance junction to lead	$R_{th(j-l)}$	60 max	°C/W
结到环境的热阻 Thermal resistance junction to ambient	$R_{th(j-a)}$	150 typ	

特征曲线 ELECTRICAL CHARACTERISTICS (curves)



tq测试示意图

tq circuit principle

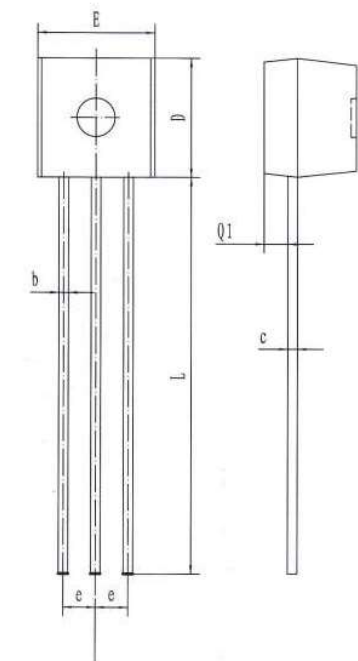


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外形尺寸 PACKAGE MECHANICAL DATA

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

