

# 3CT06B

## 主要参数 MAIN CHARACTERISTICS

$I_{T(AV)}$	0.5A
$V_{DRM}/V_{RRM}$	600 V
$I_{GT}$	10-140 $\mu$ A

### 用途

- 半交流开关
- 相位控制

### APPLICATIONS

- Half AC switching
- Phase control

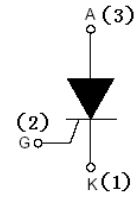
### 产品特性

- 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

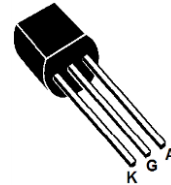
- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High  $I_{TSM}$
- RoHS products

## 封装 Package

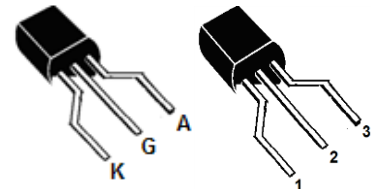


序号 Pin	引线名称 Description
1	阴极 K
2	门极 G
3	阳极 A

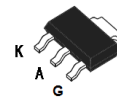
### TO-92



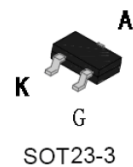
### TO-92-F1



### SOT-223



### SOT-23-3



**订货信息 ORDER MESSAGE**

订货型号 Order codes		印记 Marking	封装 Package
有卤-编带弹带盒装 Halogen-Tape	无卤-编带弹带盒装 Halogen-Free-Tape	3CT06B	T0-92
3CT06B-T-E	3CT06B-T-ER		
有卤-编带弹带盒装 Halogen-Tape	无卤-编带弹带盒装 Halogen-Free-Tape		
3CT06B-T1-E	3CT06B-T1-ER	3CT06B	T0-92-F1
有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free- Reel		
3CT06B-NC-A	3CT06B-NC-AR		
有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free- Reel	3CT06B	S0T-223
3CT06B-NP-A	3CT06B-NP-AR		
有卤-编带 Halogen-Reel	无卤-编带 Halogen-Free- Reel		
3CT06B-NP-A	3CT06B-NP-AR	3CT06B	S0T-23-3

**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=10ms)	$I_{TSM}$	8	A
峰值门极电流 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	°C
操作结温 Operation junction temperature	$T_{VJ}$	125	°C

**电特性 ELECTRICAL CHARACTERISTIC ( $T_C=25^\circ\text{C}$  unless otherwise stated)**

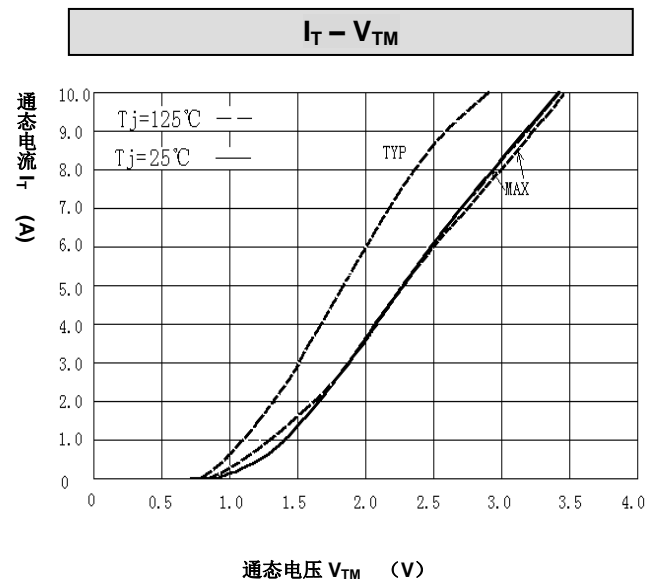
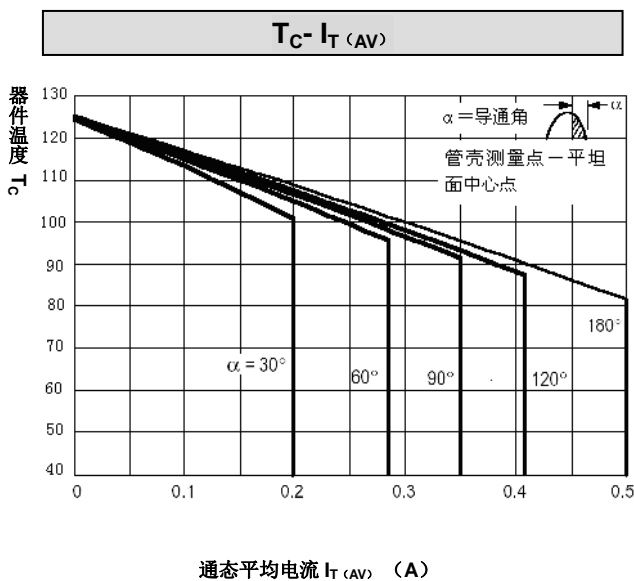
项 目 Parameter	符号 Symbol	测试条件 Tests conditions	最小 min	典型 typ	最大 max	单位 Unit
断态峰值重复电流 Peak Repetitive Blocking Current	$I_{DRM}$	$V_{DM}=V_{DRM}, T_j=125^\circ\text{C}, R_{GK}=1\text{K}\Omega$	-	-	0.1	mA
反向峰值重复电流 Peak Repetitive Reverse Current	$I_{RRM}$	$V_{RM}=V_{RRM}, T_j=125^\circ\text{C}, R_{GK}=1\text{K}\Omega$	-	-	0.1	mA
峰值通态电压 Peak on-state voltage	$V_{TM}$	$I_{TM}=2\text{A}$	-	-	1.8	V
门极触发电流 Gate trigger current	$I_{GT}$	$V_{DM}=12\text{V}, I_T=0.1\text{A}$	10	-	140	$\mu\text{A}$
门极触发电压 Gate trigger voltage	$V_{GT}$	$V_{DM}=12\text{V}, I_T=0.1\text{A}$	-	0.65	0.8	V
维持电流 Holding current	$I_H$	$V_{DM}=12\text{V}, I_{GT}=1\text{mA}$	-	-	5	mA

**动态特性 DYNAMIC CHARACTERISTICS ( $T_C=25^\circ\text{C}$  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	$V_{DM}=67\% V_{DRM(\text{MAX})}, T_j=125^\circ\text{C}, R_{GK}=1\text{K}\Omega$	10	-	-	V/ $\mu\text{s}$

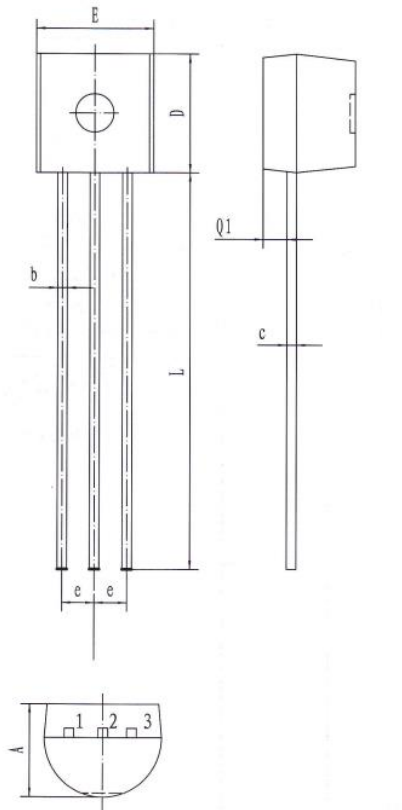
**热特性 THERMAL CHARACTERISTIC**

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	$^\circ\text{C}/\text{W}$
结到表面的热阻 Thermal resistance junction to tab	$R_{th(j-t)}$	30 max	
结到环境的热阻 Thermal resistance junction to ambient	$R_{th(j-a)}$	150 typ	
	S=5cm <sup>2</sup>	60 typ	

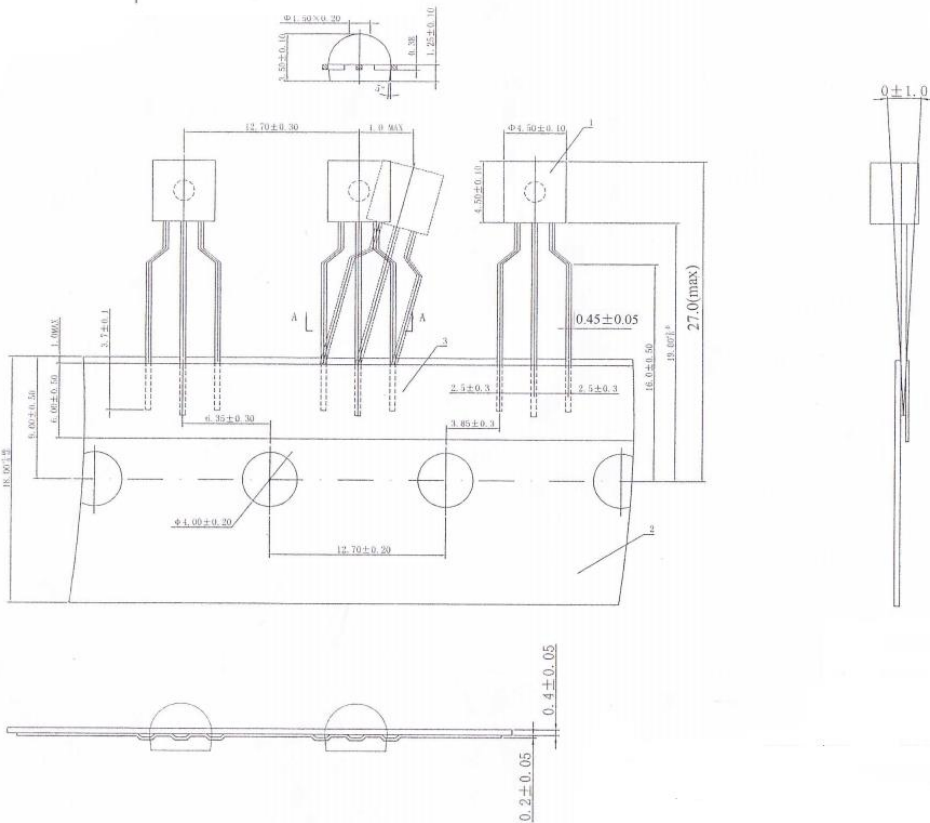
**特征曲线 ELECTRICAL CHARACTERISTICS (curves)**


外形尺寸 PACKAGE MECHANICAL DATA  
**TO-92**

单位 Unit : mm

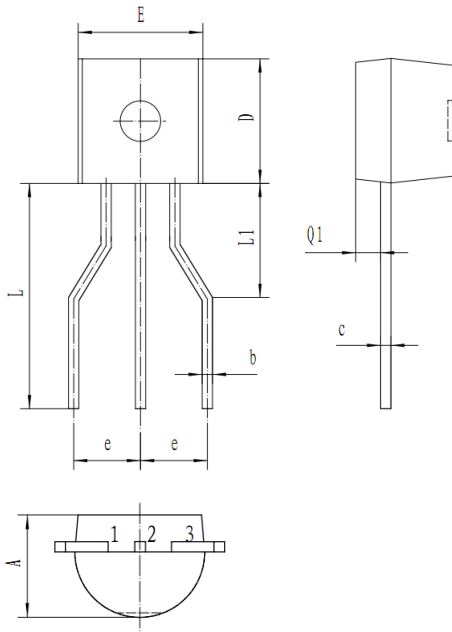


<b>A</b>	3.30-3.90
<b>b</b>	0.35-0.55
<b>c</b>	0.31-0.51
<b>D</b>	4.30-4.90
<b>E</b>	4.30-4.90
<b>e</b>	1.17-1.37
<b>L</b>	12.50-15.50
<b>Q1</b>	0.85-1.00



外形尺寸 PACKAGE MECHANICAL DATA  
**TO-92-F1**

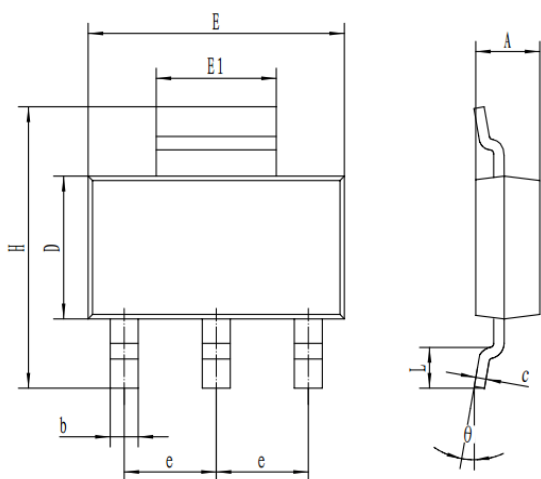
单位 Unit : mm



<b>A</b>	3.30-3.90
<b>b</b>	0.35-0.55
<b>c</b>	0.31-0.51
<b>D</b>	4.30-4.90
<b>E</b>	4.30-4.90
<b>e</b>	1.17-1.37
<b>L</b>	5.00-6.00
<b>L1</b>	2.70-3.30
<b>Q1</b>	0.74-0.89

外形尺寸 PACKAGE MECHANICAL DATA  
**SOT-223**

单位 Unit : mm

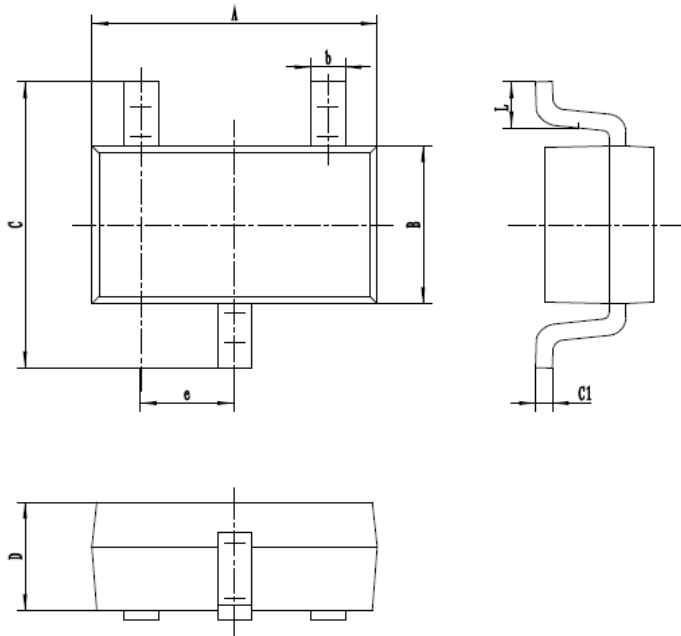


<b>A</b>	1.50-1.70
<b>A1</b>	0.02-0.10
<b>b</b>	0.60-0.80
<b>c</b>	0.24-0.31
<b>D</b>	3.30-3.70
<b>E</b>	6.30-6.50
<b>E1</b>	2.90-3.10
<b>e</b>	2.30 type
<b>H</b>	6.75-7.05
<b>L</b>	0.80-1.20
<b><math>\theta</math></b>	0° -10°

外形尺寸 PACKAGE MECHANICAL DATA

SOT-23-3

单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	2.82	3.02
B	1.50	1.70
C	2.65	2.95
D	1.00	1.20
L	0.30	0.60
b	0.29	0.51
e	0.95(BSC)	
C1	0.1	0.2