



# 3CG5401A

## 主要参数 MAIN CHARACTERISTICS

$I_C$	-0.6A
$V_{CEO}$	-150V
$P_C$ (TO-92)	0.625W
$P_C$ (SOT-23)	0.350W

### 用途

- 高频开关电源
- 高频功率变换
- 一般功率放大电路

### APPLICATIONS

- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier circuit

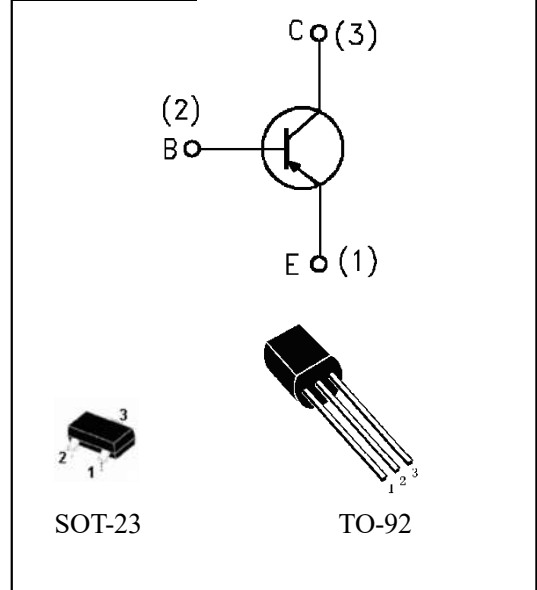
### 产品特性

- 硅外延
- 高开关速度
- 与 3DG5551A 互补
- 环保 (RoHS) 产品

### FEATURES

- Epitaxial silicon
- High switching speed
- Complementary to 3DG5551A
- RoHS product

## 封装 Package



## 订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel	有卤-袋装 Halogen-Reel	无卤-袋装 Halogen Free-Reel		
3CG5401A -T-A	3CG5401A -T-AR	3CG5401A -T-C	N/A	5401	TO-92
N/A	3CG5401A -NP-AR	N/A	N/A	2L	SOT-23

**绝对最大额定值 ABSOLUTE RATINGS (Tc=25°C)**

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
集电极—基极直流电压 Collector- Base Voltage ( I <sub>E</sub> =0)	V <sub>CBO</sub>	-160	V
集电极—发射极直流电压 Collector- Emitter Voltage ( I <sub>B</sub> =0)	V <sub>CEO</sub>	-150	V
发射极—基极直流电压 Emitter-Base Voltage ( I <sub>C</sub> =0)	V <sub>EBO</sub>	-5	V
最大集电极直流电流 Collector Current (DC)	I <sub>C</sub>	-0.6	A
最大集电极耗散功率 Total Dissipation (TO-92)	P <sub>C</sub>	0.625	W
最大集电极耗散功率 Total Dissipation (SOT-23)	P <sub>C</sub>	0.350	W
最高结温 Junction Temperature	T <sub>j</sub>	150	°C
贮存温度 Storage Temperature	T <sub>stg</sub>	-55~+150	°C

**电特性 ELECTRICAL CHARACTERISTIC**

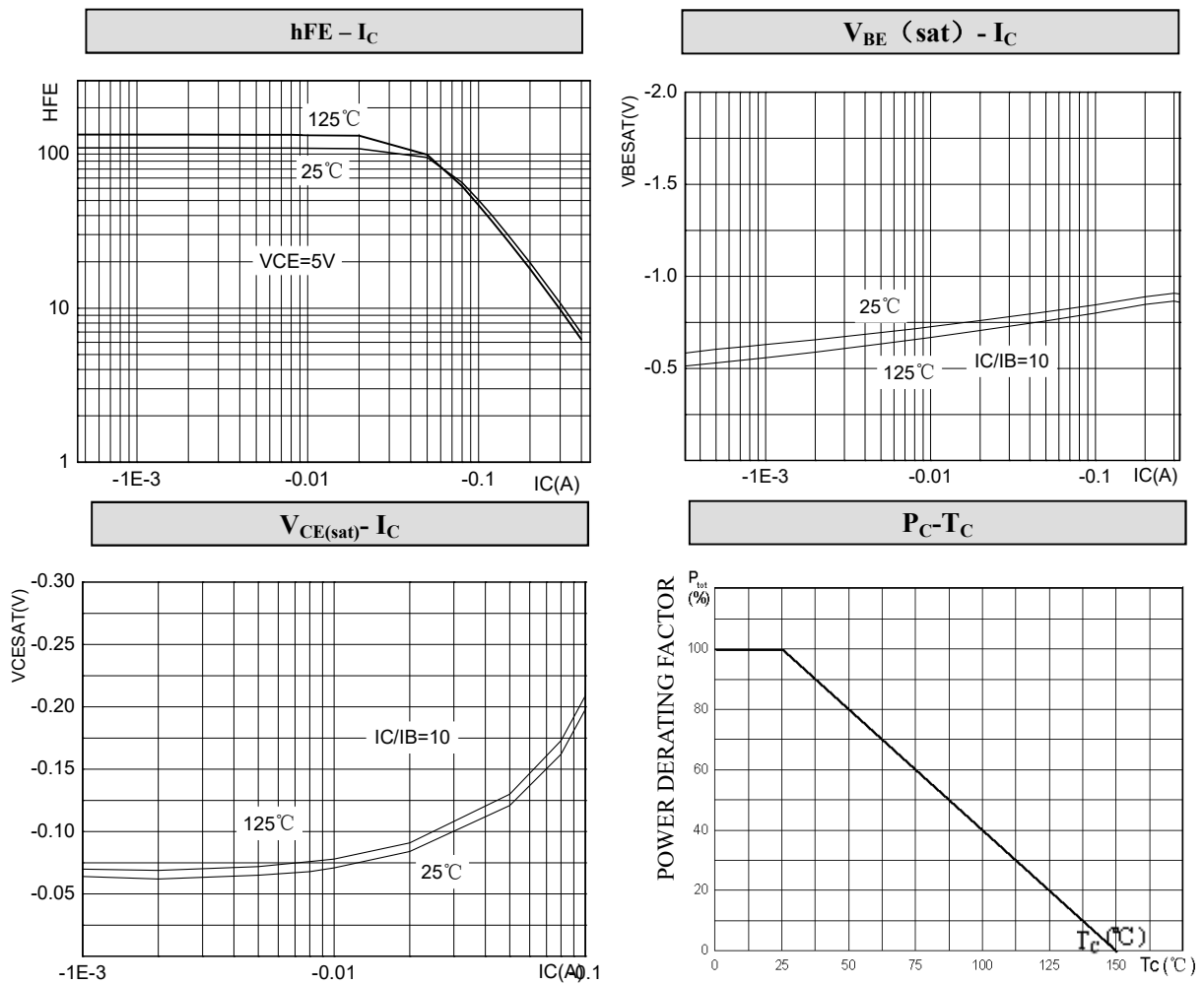
项 目 Parameter	测试条件 Tests conditions	最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
V(BR) <sub>CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-160	-	-	V
V(BR) <sub>CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-150	-	-	V
V(BR) <sub>EBO</sub>	I <sub>E</sub> =-10μA, I <sub>C</sub> =0	-5	-	-	V
I <sub>CBO</sub>	V <sub>CB</sub> =-120V, I <sub>E</sub> =0	-	-	-50	nA
I <sub>EBO</sub>	V <sub>EB</sub> =-3V, I <sub>C</sub> =0	-	-	-50	nA
hFE	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA	60	150	240	
	V <sub>CE</sub> =-5V, I <sub>C</sub> =-1mA	50			
	V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA	50			
V <sub>CE(sat)</sub>	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA	-	-	-0.5	V
V <sub>BE(sat)</sub>	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA	-	-	-1.0	V
f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> =-10mA	100	-	-	MHz

**热特性 THERMAL CHARACTERISTIC**

项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 TO-92 Thermal Resistance Junction Ambient TO-92	R <sub>th(j-a)</sub>	-	200	°C/W
结到环境的热阻 SOT-23 Thermal Resistance Junction Ambient SOT-23	R <sub>th(j-a)</sub>	-	357	°C/W



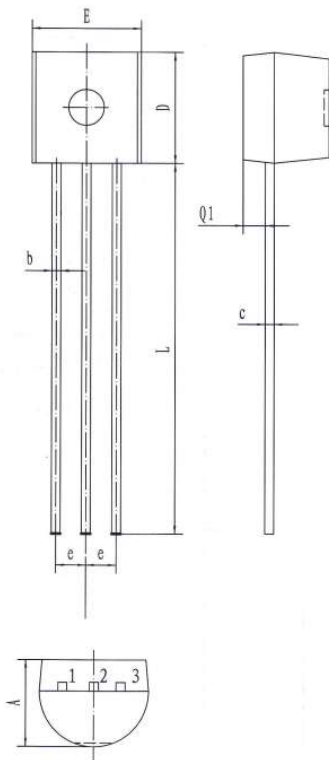
### 特征曲线 ELECTRICAL CHARACTERISTICS (curves)



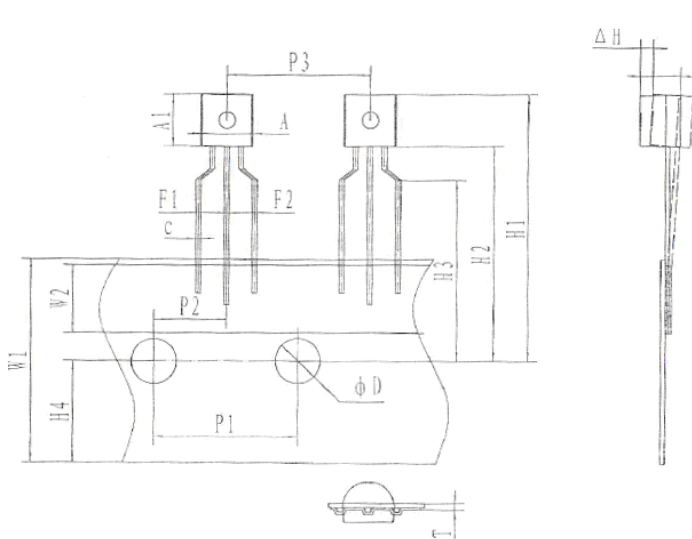


外形尺寸 PACKAGE MECHANICAL DATA  
TO-92

单位 Unit : mm



符号 Symbol	尺寸 (mm) Size (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

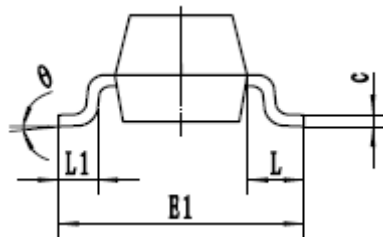
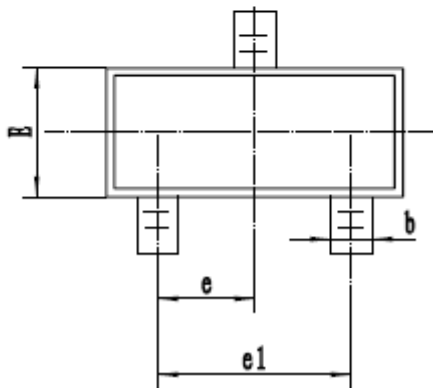
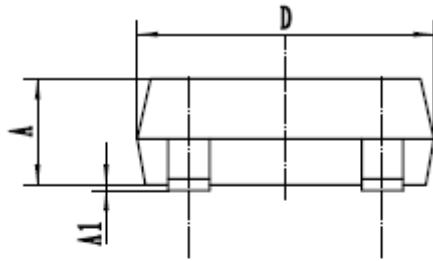


符号 Symbol	尺寸 (mm) Size (mm)
A	4.30-4.90
A1	4.30-4.90
A2	3.30-3.90
c	TYP 0.45
F1/F2	2.20-2.80
W1	17.5-18.5
W2	5.50-6.50
H1	22.0-27.0
H2	18.0-20.0
H3	15.0-17.0
H4	8.50-9.50
P1	12.5-12.9
P2	6.00-6.70
P3	12.5-12.9
T	0.40-0.45
φ D	3.80-4.20
ΔH	0.00-1.00



外形尺寸 PACKAGE MECHANICAL DATA  
SOT-23

单位 Unit : mm



SYMBOL	mm	
	MIN	MAX
A	0.85	1.20
A1	0.00	0.15
b	0.25	0.60
c	0.075	0.20
D	2.75	3.05
E	1.15	1.45
E1	2.20	2.60
e	0.950TYP	
e1	1.75	2.05
L	0.55REF	
L1	0.15	0.55
$\theta$	0°	10°



## 注意事项

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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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