

KTA1049

Rev. A Mar.-2025

描述 / Descriptions

TO-220F 塑封封装 PNP 半导体三极管。
Silicon PNP transistor in a TO-220F Plastic Package.

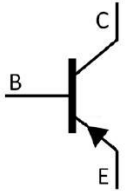
特征 / Features

与 KTC2028 互补。
Complement to KTC2028.

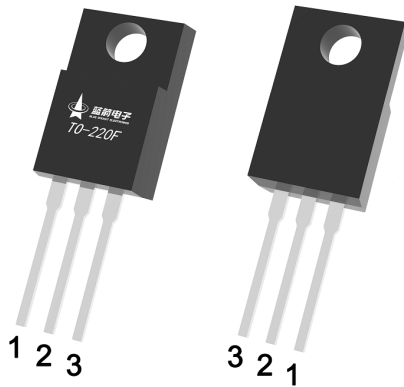
用途 / Applications

用于中功率线性开关放大。
Medium power linear switching applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base PIN 2 : Collector PIN 3 : Emitter

放大及印章代码 / h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	70~140	120~240

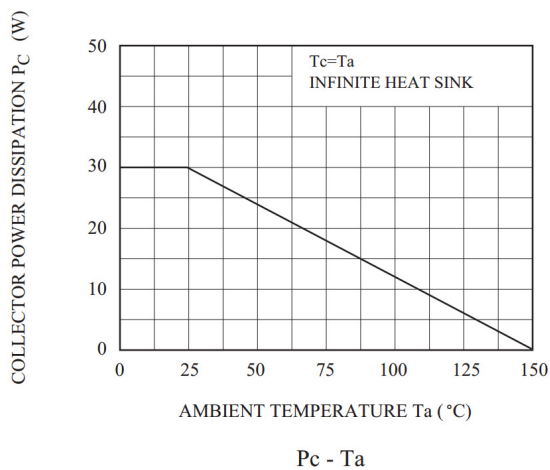
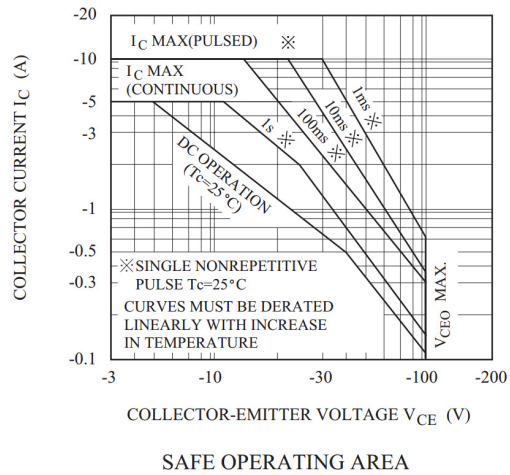
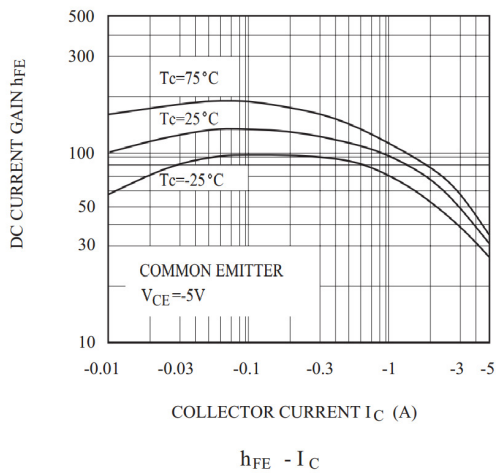
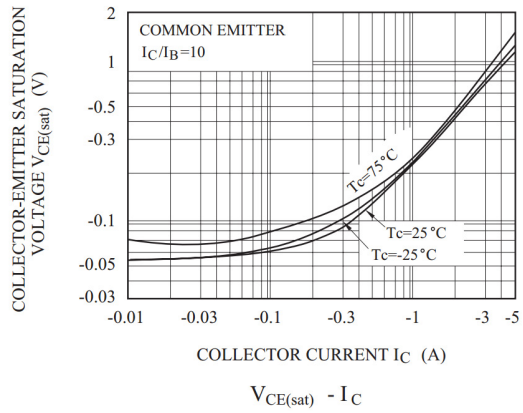
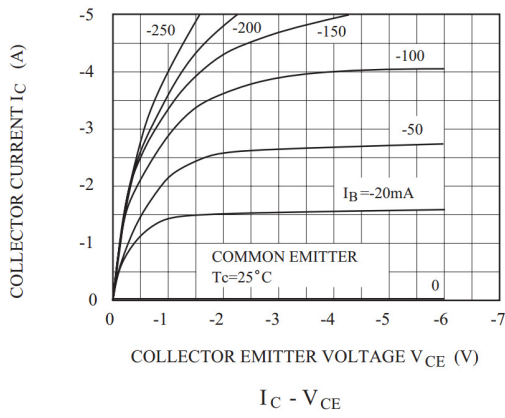
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CBO}	-100	V
Collector to Emitter Voltage	V _{CEO}	-100	V
Emitter to Base Voltage	V _{EBO}	-5.0	V
Collector Current-Continuous	I _C	-5.0	A
Base Current - Continuous	I _B	-0.5	A
Collector Power Dissipation	P _C (T _C =25°C)	30	W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{sag}	-55~150	°C

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =-50mA I _B =0	-100			V
Collector Cut-off Current	I _{CBO}	V _{EB} =-100.0V I _C =0			-1.0	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-5.0V I _C =0			-1.0	μA
DC Current Gain	h _{FE(1)}	V _{CE} =-5.0V I _C =-1.0A	70		240	
	h _{FE(2)}	V _{CE} =-5.0V I _C =-4.0A	20			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =-4.0A I _B =-0.4A			-2.0	V
Base to Emitter Saturation Voltage	V _{BE(ON)}	I _C =-4.0A V _{CE} =-5.0V			-1.5	V
Transition Frequency	f _T	V _{CE} =-5V I _C =-1A		30		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz I _E =0		90		pF

电参数曲线图 / Electrical Characteristic Curve



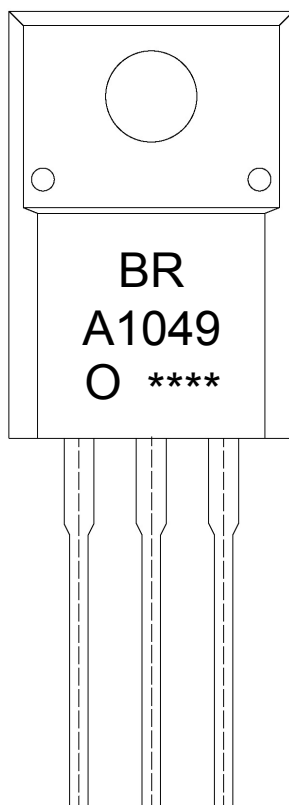
外形尺寸图 / Package Dimensions

T□-220F

单位: mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

A1049： 为型号代码

O： 为 hFE 分档代码

****： 为生产批号代码，随生产批号变化

Note:

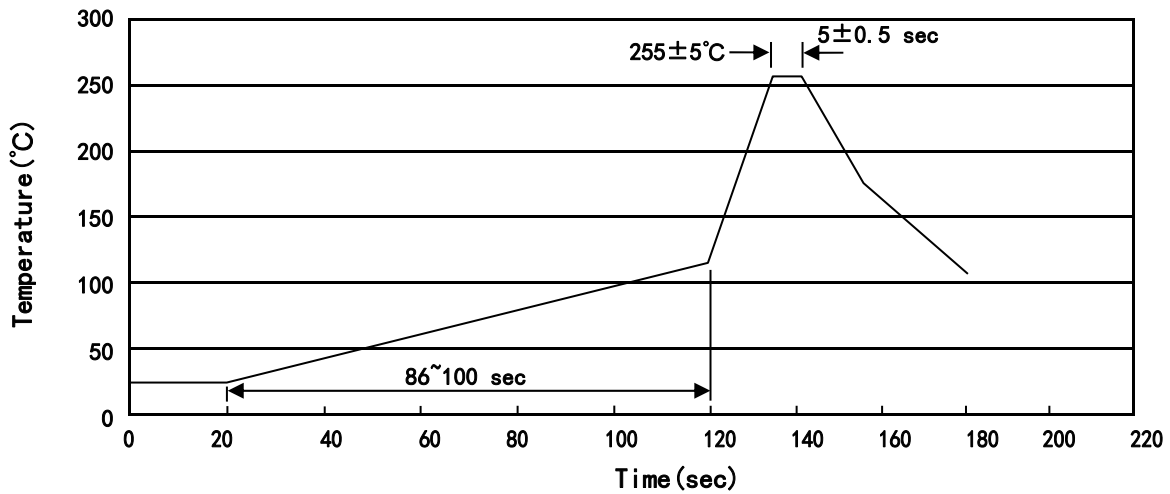
BR: Company Code

A1049: Product Type Code

O: hFE Classifications Symbol

****: Lot No. Code, code change with Lot No

波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)



说明：

- 1、预热温度 25~150°C，时间 60~90sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：270±5°C 时间：10±1 sec. Temp.:270±5°C Time:10±1 sec

包装规格 / Packaging SPEC.

散件包装 / BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明 / Notices

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