

## Descriptions

Silicon NPN transistor in a TO-220 Plastic Package

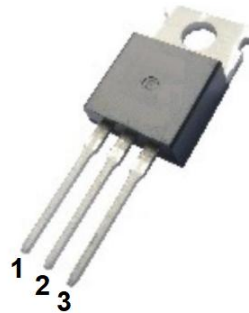
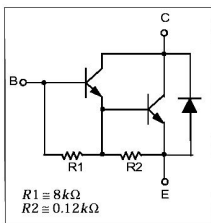
## Features

- Complement to TIP127.

## Applications

- Medium power linear switching applications.

## Equivalent Circuit & Pinning



PIN1: Base PIN 2: Collector PIN 3: Emitter

## hFE Classifications & Marking

See Marking Instructions.

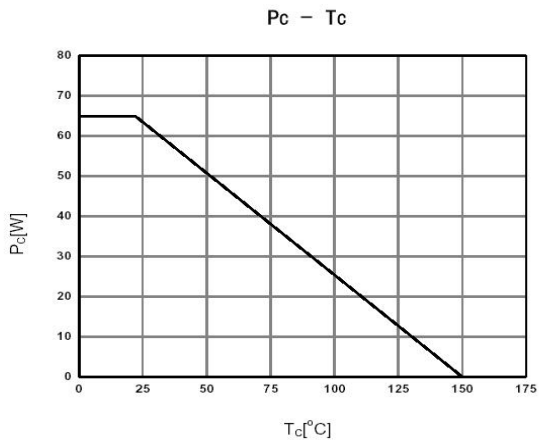
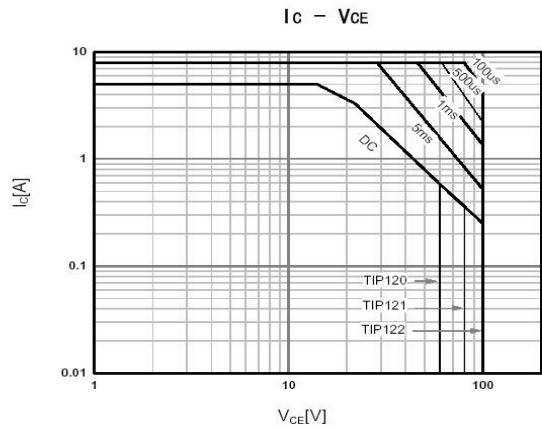
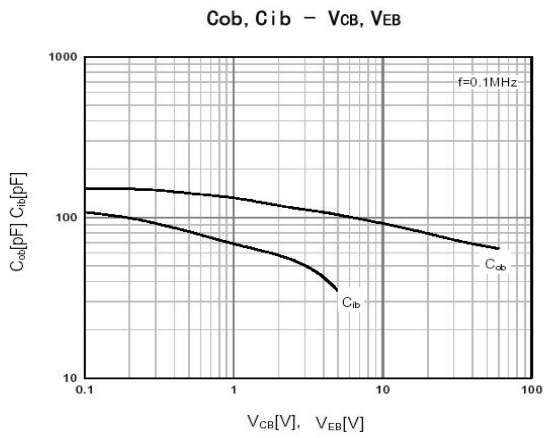
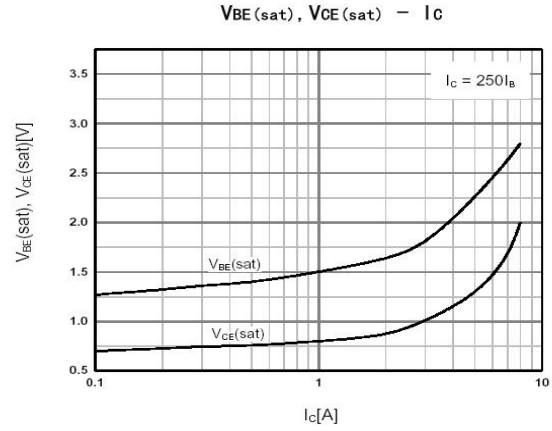
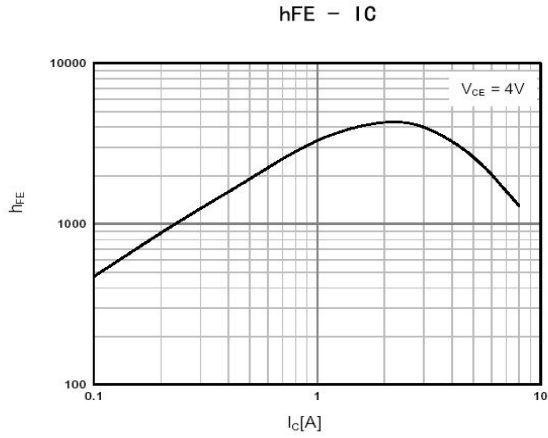
## Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	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
Peak Collector Current	$I_{CP}$	8.0	A
Base Current - Continuous	$I_B$	120	mA
Collector Power Dissipation	$P_C$	2.0	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	65	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

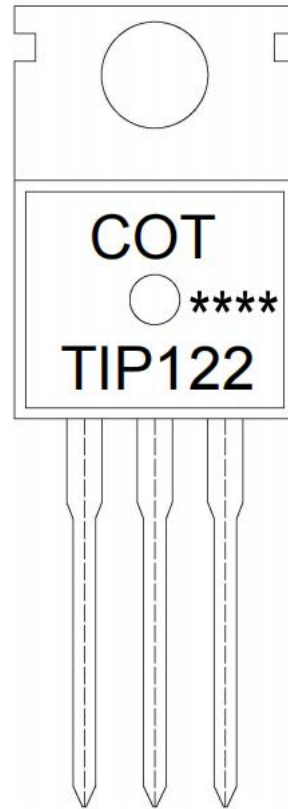
## Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=100\text{mA}$ $I_B=0$	100			V
Collector Cut-Off Current	$I_{CEO}$	$V_{CE}=50\text{V}$ $I_B=0$			0.5	mA
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=100\text{V}$ $I_E=0$			0.2	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0\text{V}$ $I_C=0$			2.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=3.0\text{V}$ $I_C=0.5\text{A}$	1000			
	$h_{FE(2)}$	$V_{CE}=3.0\text{V}$ $I_C=3.0\text{A}$	1000			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=3.0\text{A}$ $I_B=12\text{mA}$			2.0	V
	$V_{CE(sat)(2)}$	$I_C=5.0\text{A}$ $I_B=20\text{mA}$			4.0	V
Base to Emitter Voltage	$V_{BE}$	$I_C=3.0\text{A}$ $V_{CE}=3.0\text{V}$			2.5	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}$ $I_E=0$ $f=0.1\text{MHz}$			200	pF

Electrical Characteristic Curve



**Marking Instructions**



Note:  
 COT: Company Code  
 TIP122: Product Type.  
 \*\*\*\*: Lot No. Code, code change with Lot No

**Packaging SPEC**

**BULK**

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

**TUBE**

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

Package Outline Dimensions

TO-220

单位: mm

