

**/ Descriptions**

Silicon NPN transistor in a TO-220F Plastic Package.

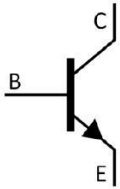
**/ Features**

Complementary to KTA1725.

**/ Applications**

High Power amplifier application.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ Classifications Symbol	R	O
$h_{FE}$ Range	55 100	80 160

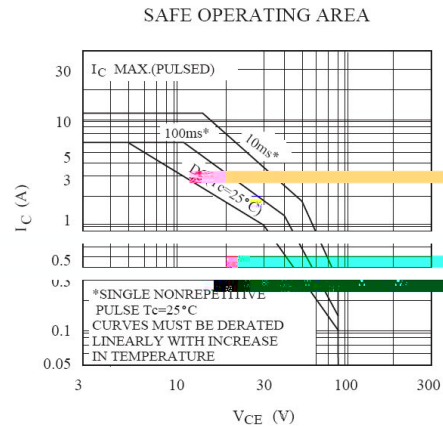
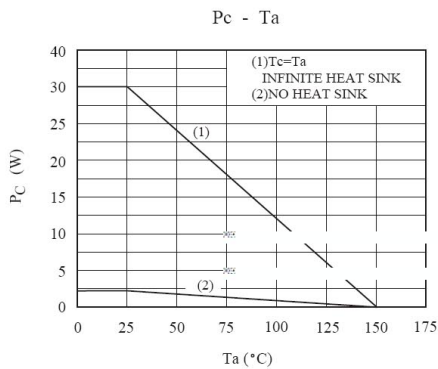
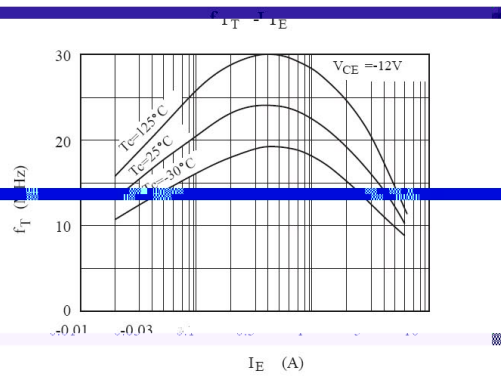
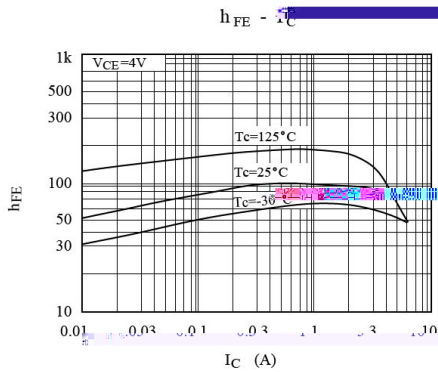
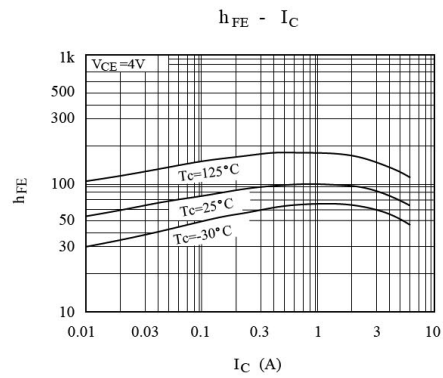
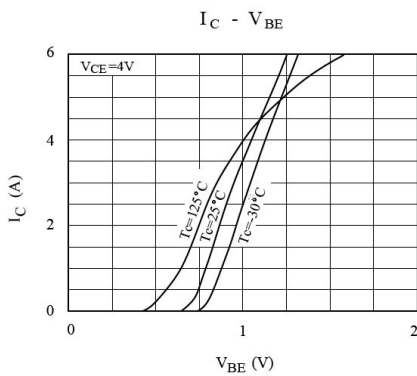
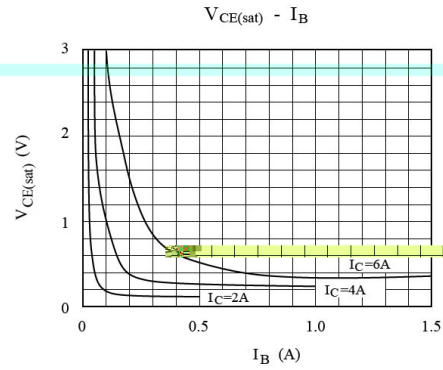
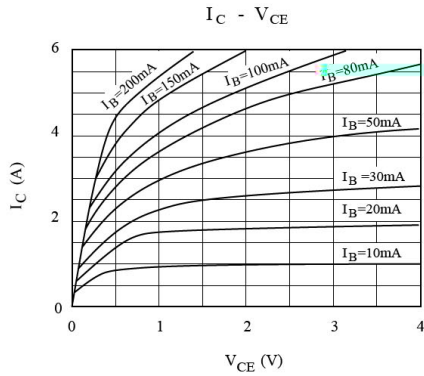
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	80	V
Collector to Emitter Voltage	$V_{CEO}$	80	V
Emitter to Base Voltage	$V_{EBO}$	6.0	V
Collector Current - Continuous	$I_C$	6.0	A
Base Current	$I_B$	3.0	A
Collector Power Dissipation	$P_c(T_c=25^{\circ}C)$	30	W
Junction Temperature	$T_j$	150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 150	$^{\circ}C$

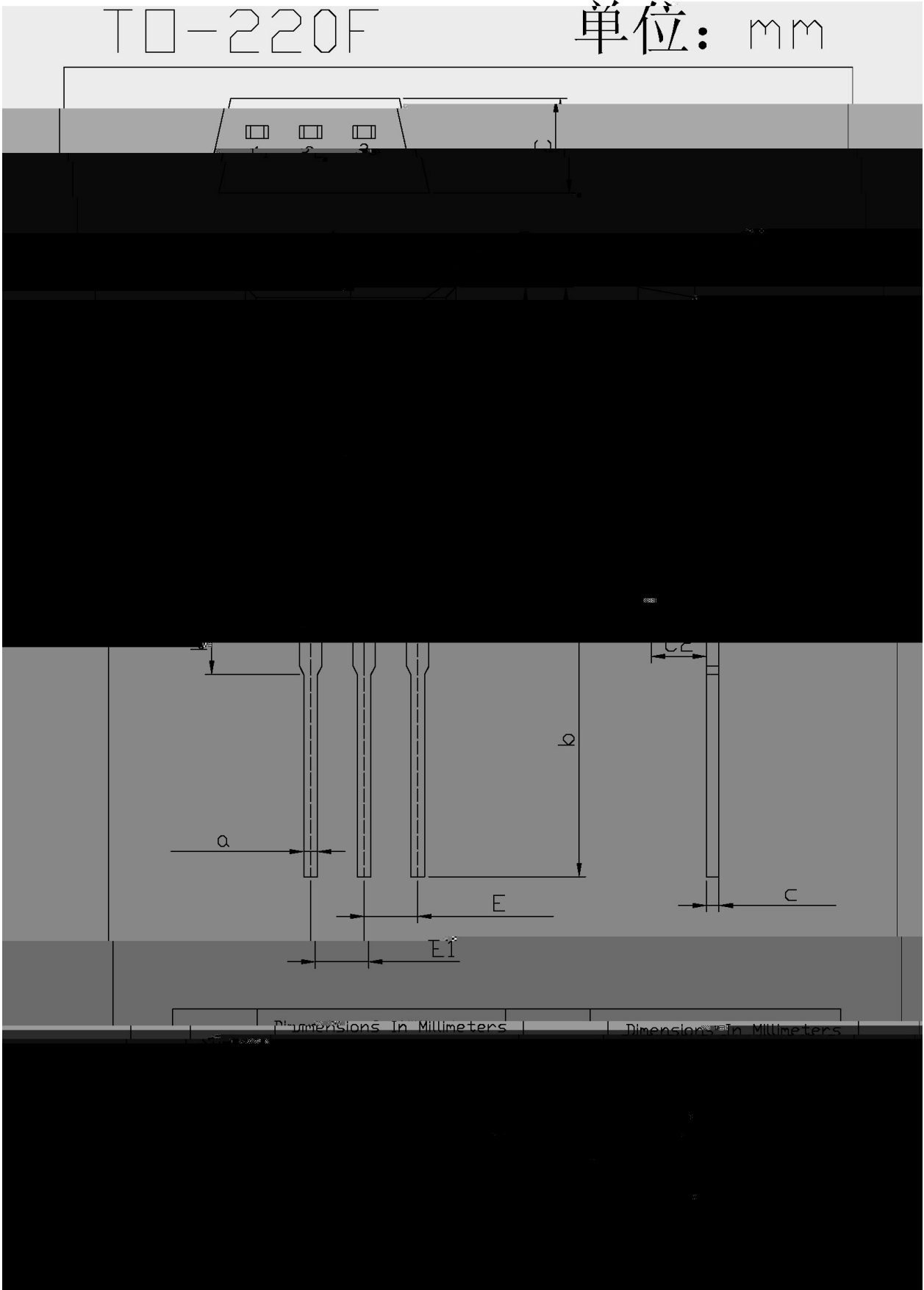
**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	$V_{CEO}$	$I_C=25mA$ $I_B=0$	80			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=80V$ $I_E=0$			10	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=6.0V$ $I_C=0$			10	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=4.0V$ $I_C=2.0A$	55		160	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A$ $I_B=0.2A$			0.5	V
Transition Frequency	$f_T$	$V_{CE}=12V$ $I_C=0.5A$		20		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V$ $f=1.0MHz$ $I_E=0$		150		pF

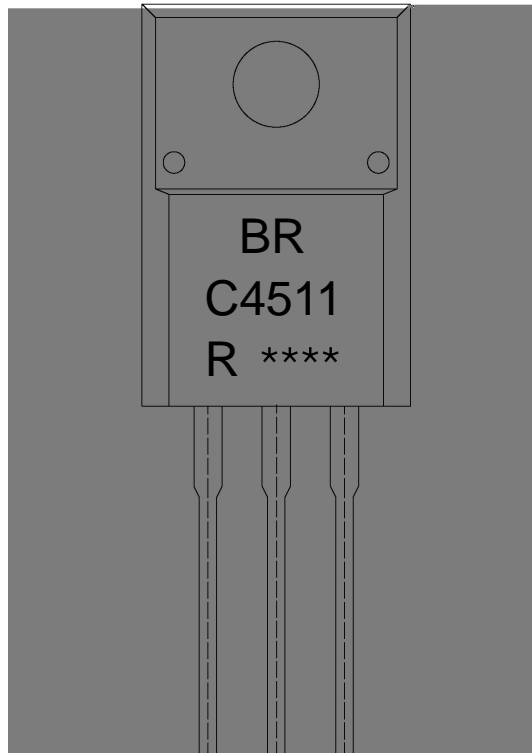
**/ Electrical Characteristic Curve**



/ Package Dimensions



/ Marking Instructions



BR

C4511

R:  $h_{FE}$

\*\*\*\*

Note:

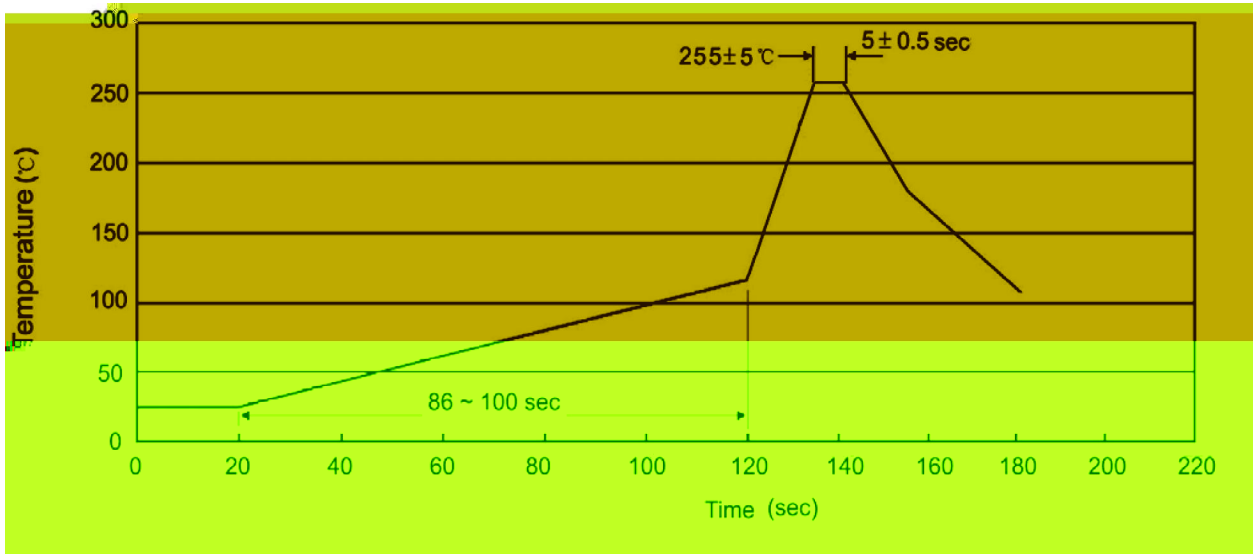
BR: Company Code.

C4511: Product Type.

R:  $h_{FE}$  Classifications Symbol

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

( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	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-220F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195