

**/ Descriptions**

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

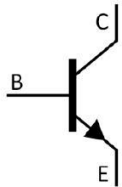
**/ Features**

High breakdown voltage, low collector output capacitance, wide SOA.

**/ Applications**

Ideal for Color TV chroma output and amplification of video signals.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

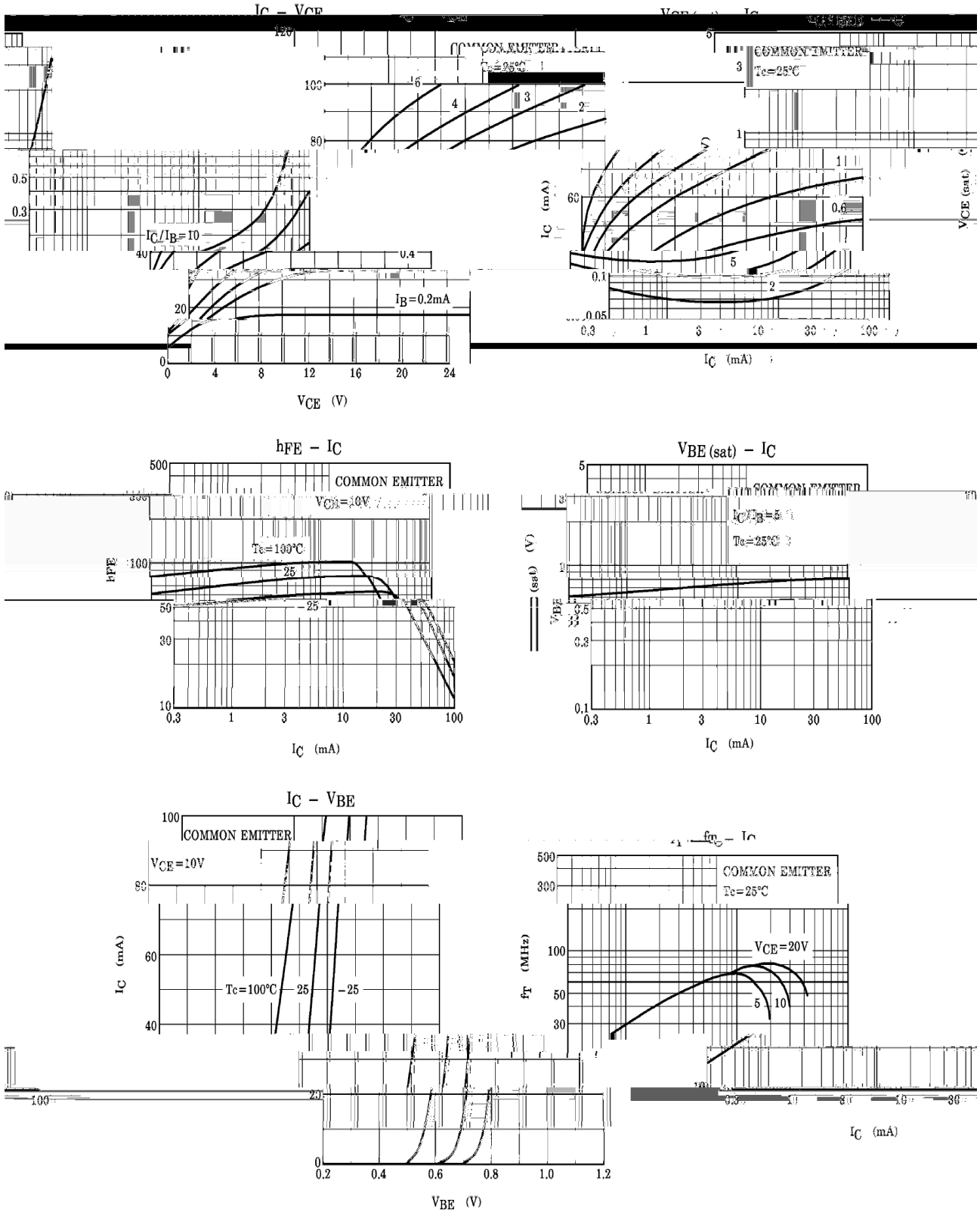
**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ Classifications Symbol	D	E
$h_{FE}$ Range	60~120	100~200

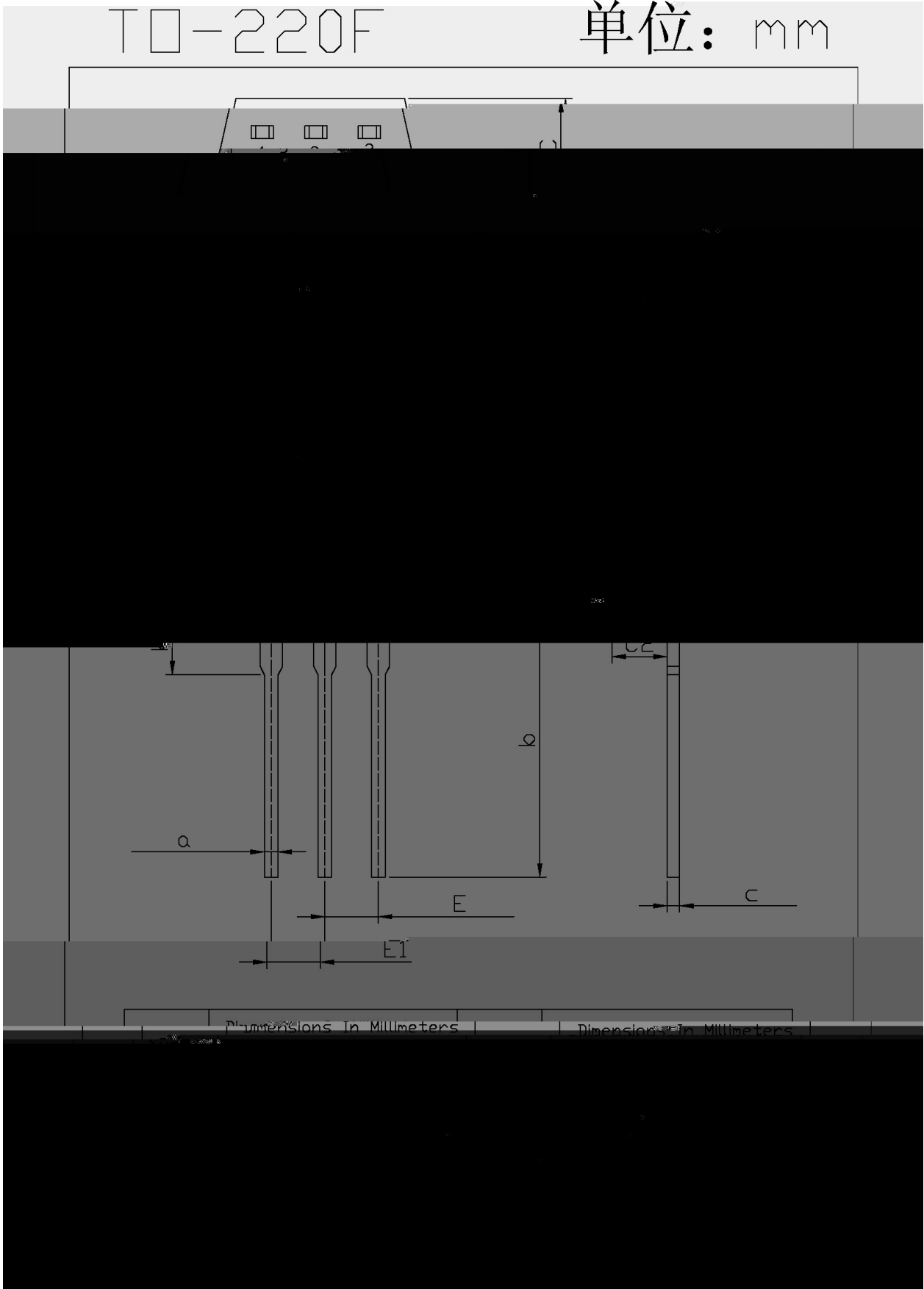
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	300	V
Collector to Emitter Voltage	$V_{CEO}$	300	V
Emitter to Base Voltage	$V_{EBO}$	5.0	V
Collector Current - Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_C$	2.0	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	10	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55~150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=50\mu\text{A}$ $I_E=0$	300			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=100\mu\text{A}$ $I_B=0$	300			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=50\mu\text{A}$ $I_C=0$	5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=200\text{V}$ $I_B=0$			0.5	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=4.0\text{V}$ $I_B=0$			0.5	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=10\text{V}$ $I_C=10\text{mA}$	60		200	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50\text{mA}$ $I_B=5.0\text{mA}$		0.2	1.0	V

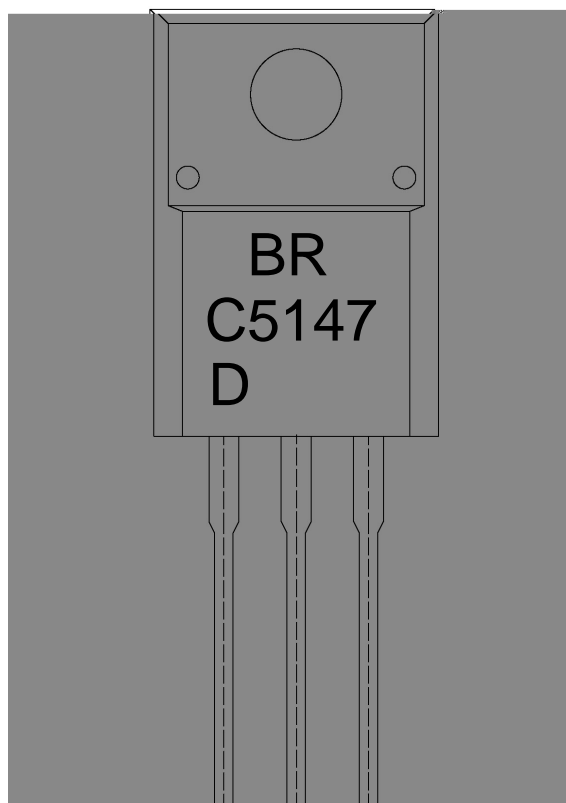
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

$h_{FE}$

Note:

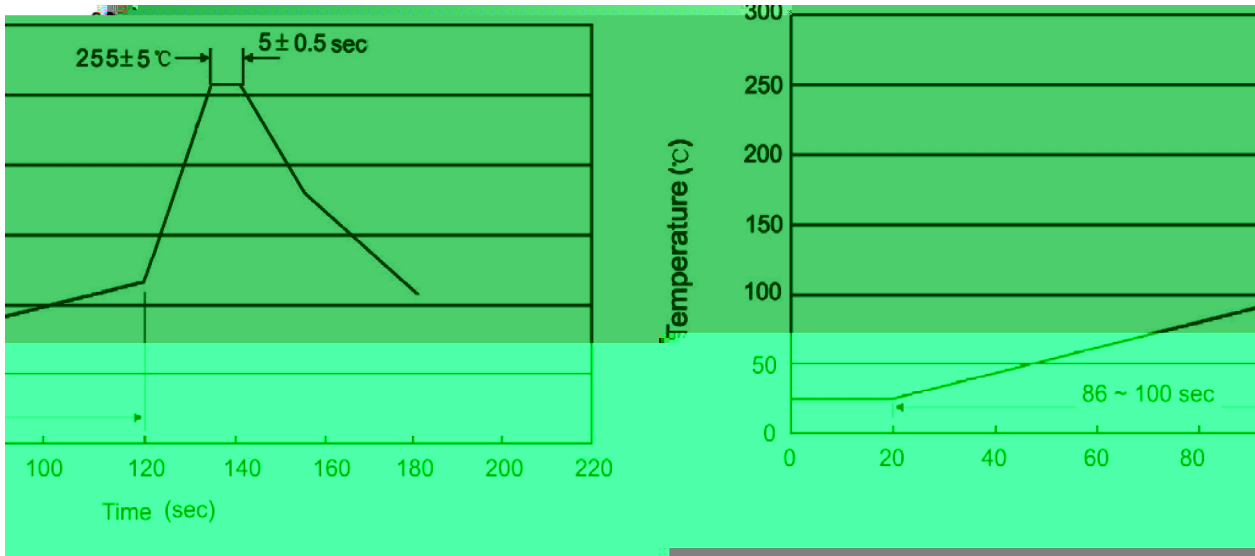
BR: Company Code.

C5147: Product Type.

D:  $h_{FE}$  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                      Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units				Dimension (unit mm <sup>3</sup> )		

/ TUBE

Package Type	Units				Dimension (unit mm <sup>3</sup> )		

/ Notices