

**/ Descriptions**

KF \$) )' = GE G` Silicon PNP transistor in a TO-220F Plastic Package.

**/ Features**

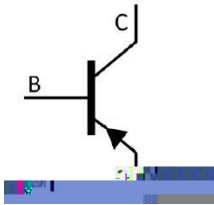
High  $V_{CE0}$ , large  $P_C$ .

**/ Applications**

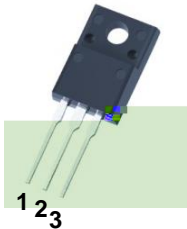
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Power amplifier, TV vertical deflection output.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

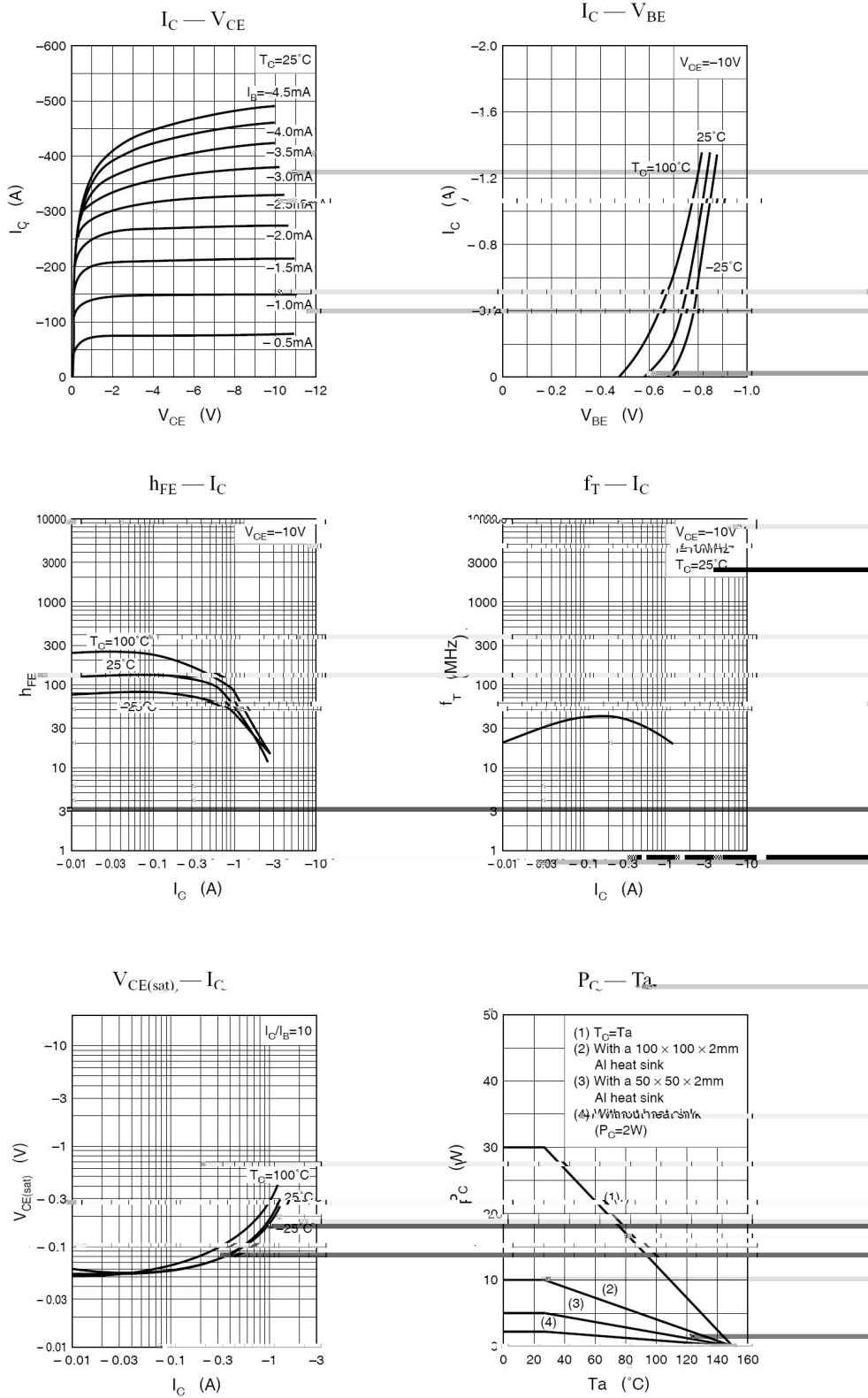
**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ Classifications Symbol	Q	P
$h_{FE}$ Range	60 140	100 240

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-200	V
Collector to Emitter Voltage	$V_{CEO}$	-150	V
Emitter to Base Voltage	$V_{EBO}$	-6.0	V
Collector Current - Continuous	$I_C$	-2.0	A
Collector Current – Continuous(Pulse)	$I_{CP}$	-3.0	A
Collector Power Dissipation	$P_C$	2.0	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	30	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

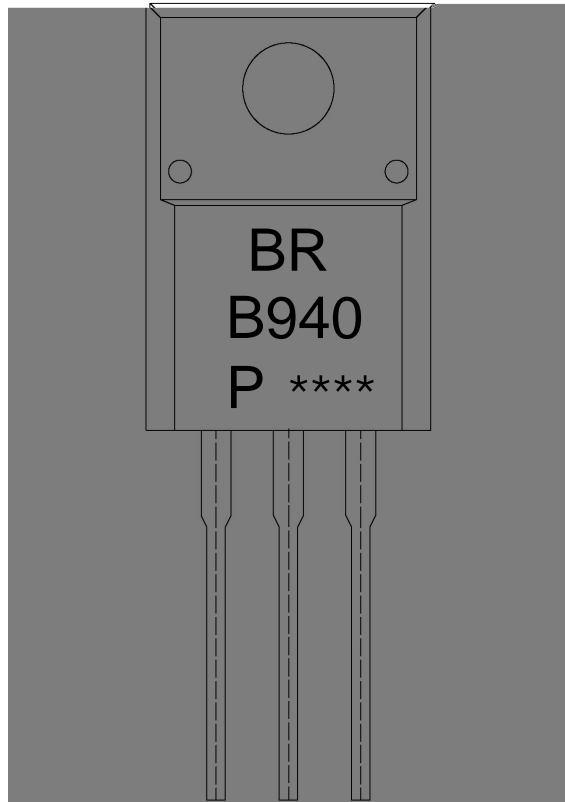
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-500\mu\text{A}$ $I_E=0$	-200			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-5.0\text{mA}$ $I_B=0$	-150			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=0$ $I_C=0$ $I_B=-5.0\text{mA}$	-6.0			V

**/ Electrical Characteristic Curve**





/ Marking Instructions



91

90+

G1

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Note:

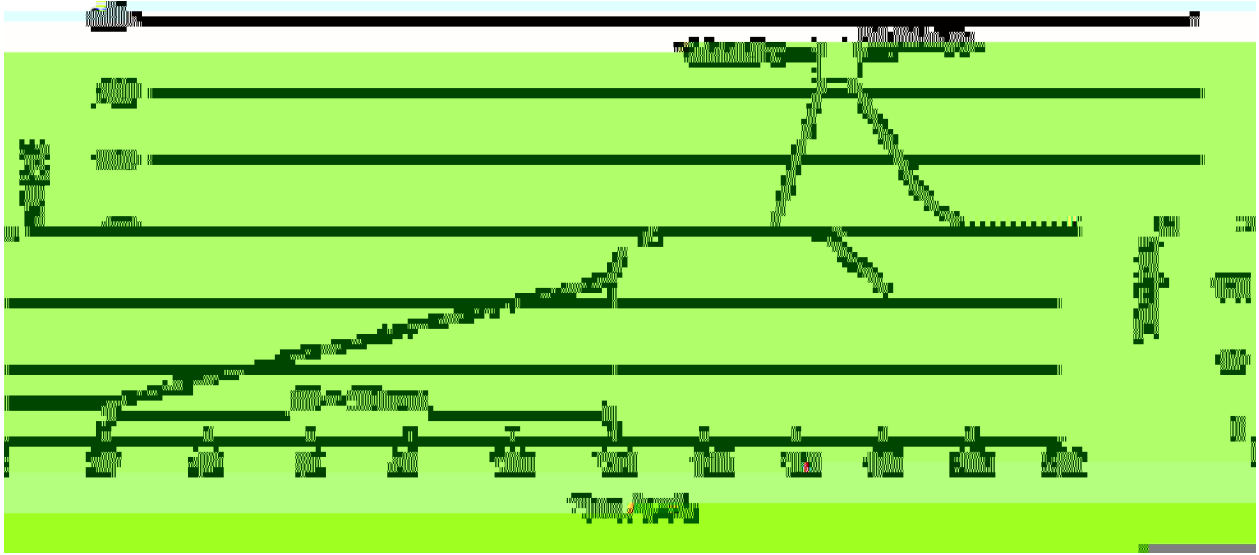
BR: Company Code.

B940: Product Type.

P:  $h_{FE}$  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> )		
	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