

**/ Descriptions**

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

**/ Features**

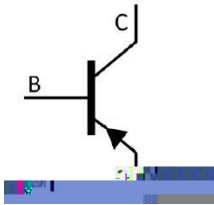
High  $V_{CE0}$ , large  $P_C$ .

**/ Applications**

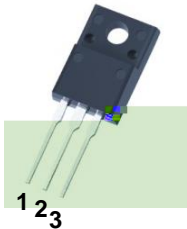
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Power amplifier, TV vertical deflection output.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base      PIN 2 Collector      PIN 3 Emitter

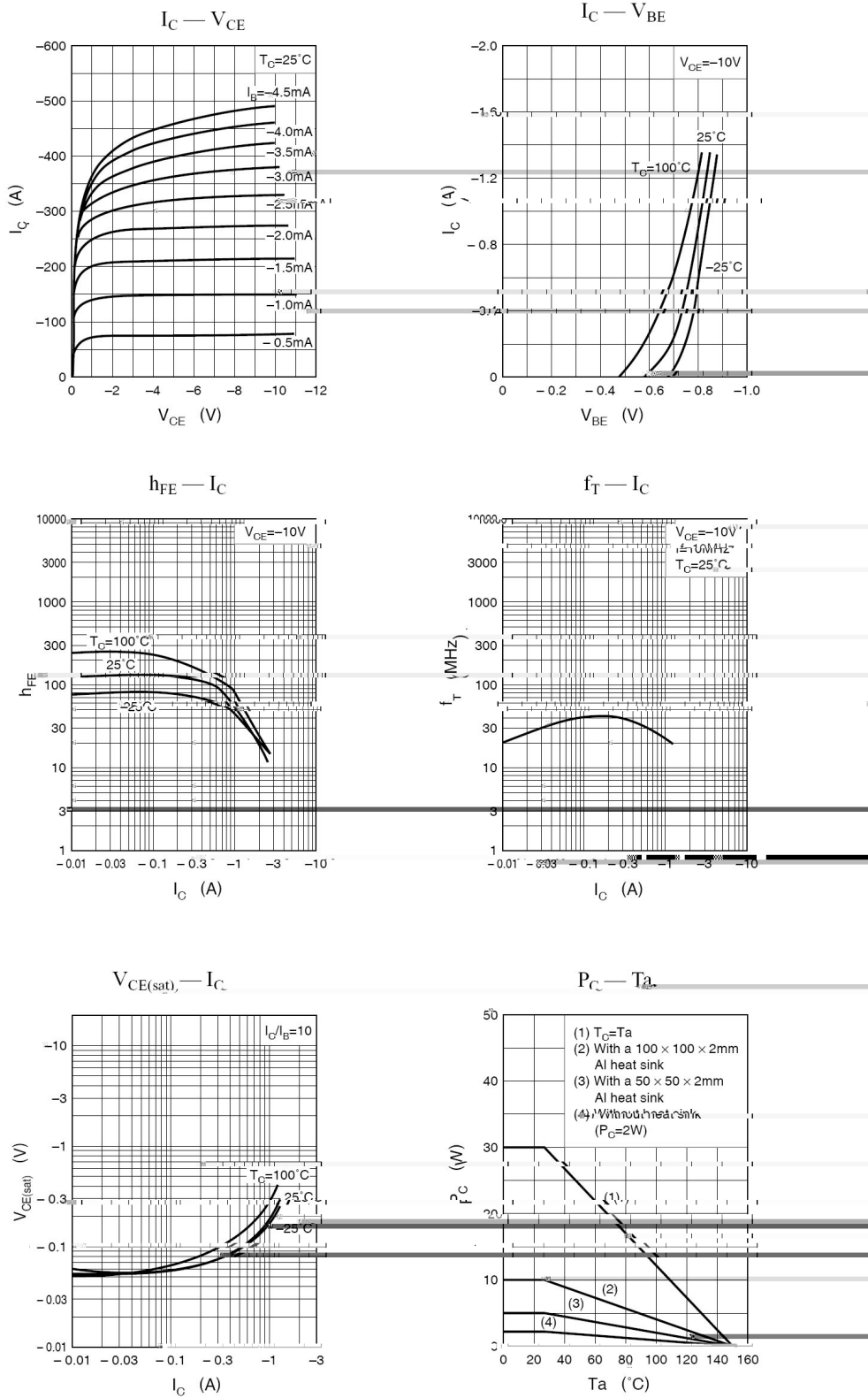
**/  $h_{FE}$  Classifications & Marking**

$h_{FE}$ 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	$P_C(T_c=25^\circ C)$	30	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

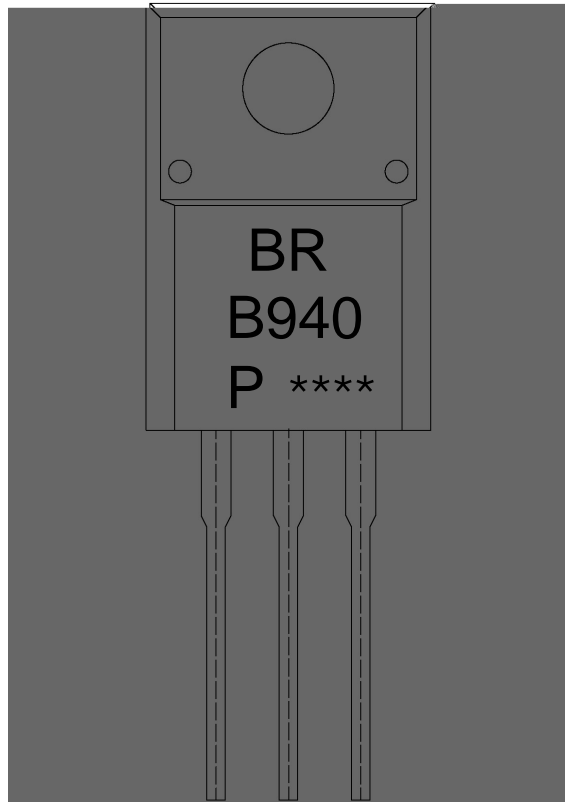
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-500\mu A$ $I_E=0$	-200			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-5.0mA$ $I_B=0$	-150			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=0$ $I_C=0$ $I_B=-5.0mA$	-6.0			V

**/ Electrical Characteristic Curve**





/ Marking Instructions



91

90+

G1

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Note:

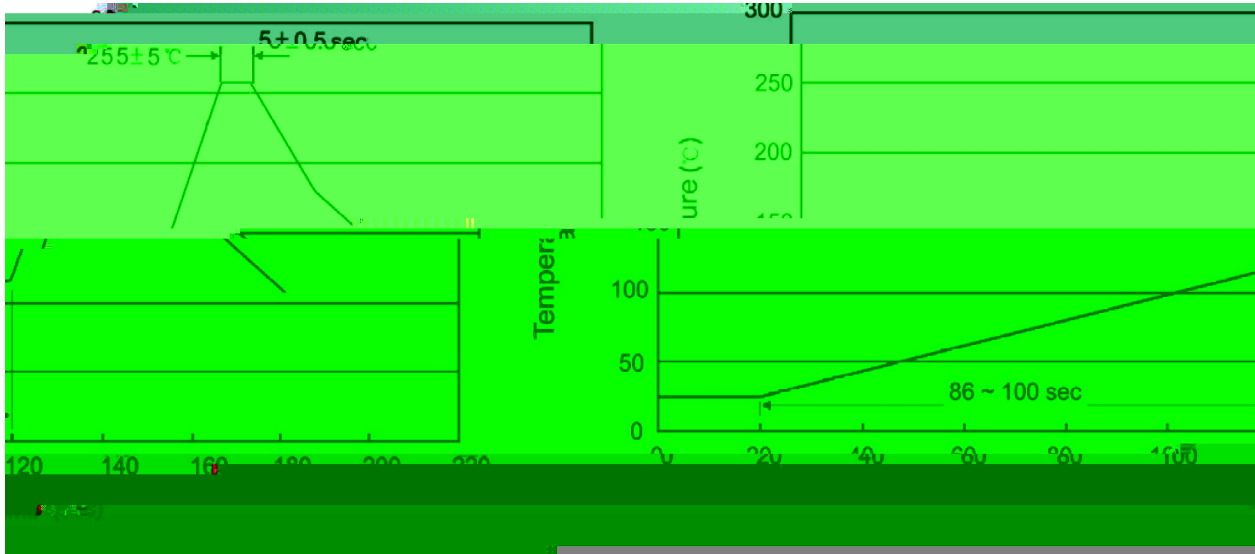
BR: Company Code.

B940: Product Type.

P:  $h_{FE}$  Classifications Symbol

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

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



- 1            25 150                    60 90sec;
- 2            255..5                            5..0.5sec;
- 3                                    2 10 /sec.

Note:

- 1.Preheating:25~150 , Time:60~90sec.
- 2.Peak Temp.:255..5 , Duration:5..0.5sec.
- 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