

**/ Descriptions**

KF (\$) - E GE Silicon NPN transistor in a TO-126 Plastic Package.

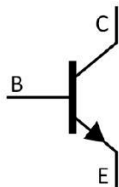
**/ Features**

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Complementary pair with 2SB1109.

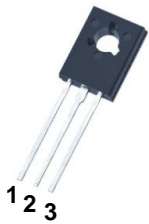
**/ Applications**

Low frequency high voltage amplifier.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Emitter      PIN 2 Collector      PIN 3 Base

**/ h<sub>FE</sub> Classifications & Marking**

h <sub>FE</sub> Classifications Symbol	B	C	D
h <sub>FE</sub> Range	60 120	100 200	160 320

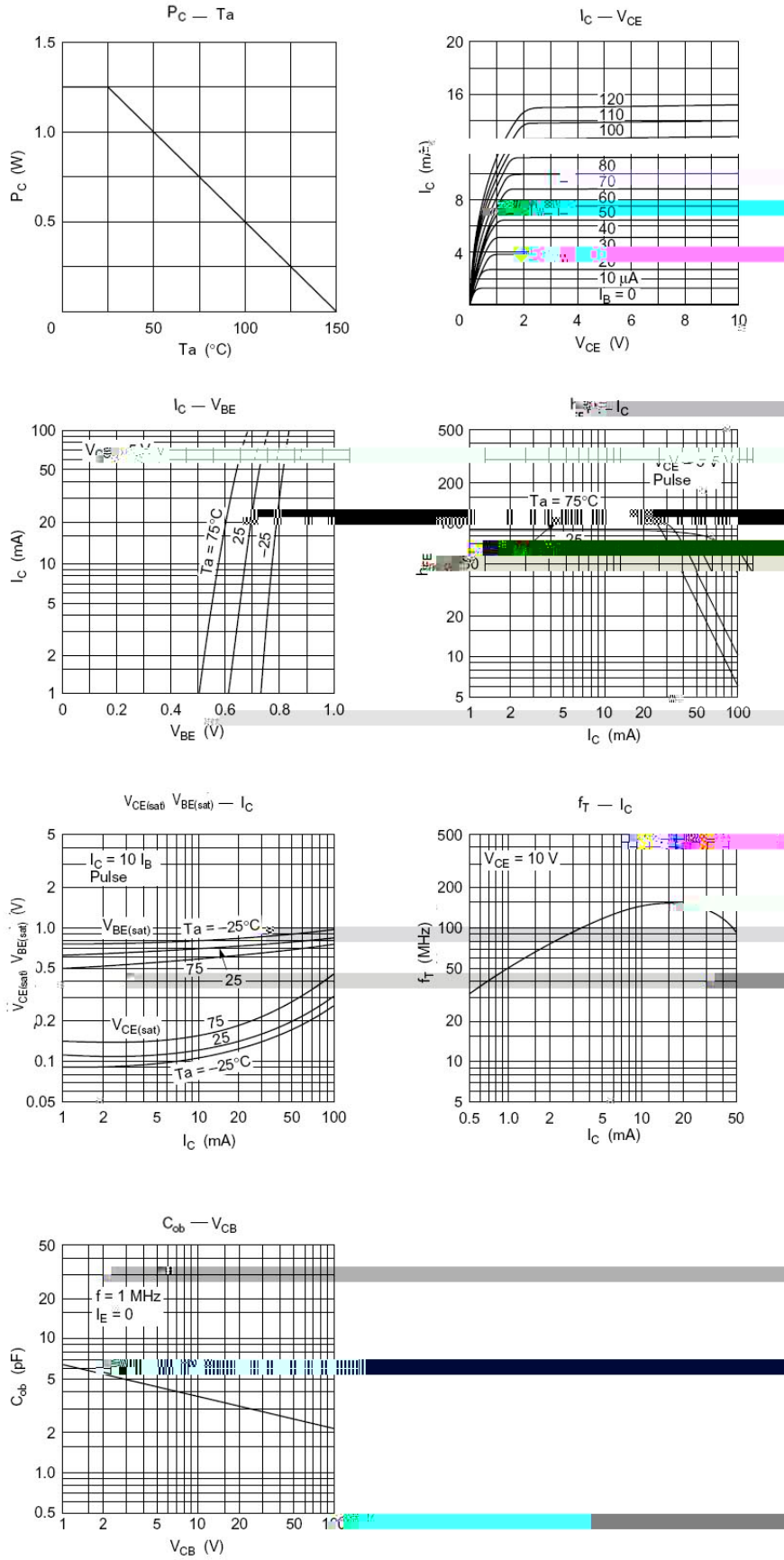
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	160	V
Collector to Emitter Voltage	$V_{CEO}$	160	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collector Current - Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_C$	1.25	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=10\mu A$ $I_E=0$	160			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=1mA$ $I_B=$	160			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=10\mu A$ $I_C=0$	5			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=140V$ $I_E=0$			10	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V$ $I_C=10mA$	60		320	
	$h_{FE(2)}$	$V_{CE}=5V$ $I_C=1mA$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=3mA$			2	V
Base to Emitter Voltage	$V_{BE}$	$V_{CE}=5V$ $I_C=10mA$			1.5	V
Transition Frequency	$f_T$	$V_{CE}=5V$ $I_C=10mA$		140		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V$ $f=1MHz$ $I_E=0$		3.8		pF

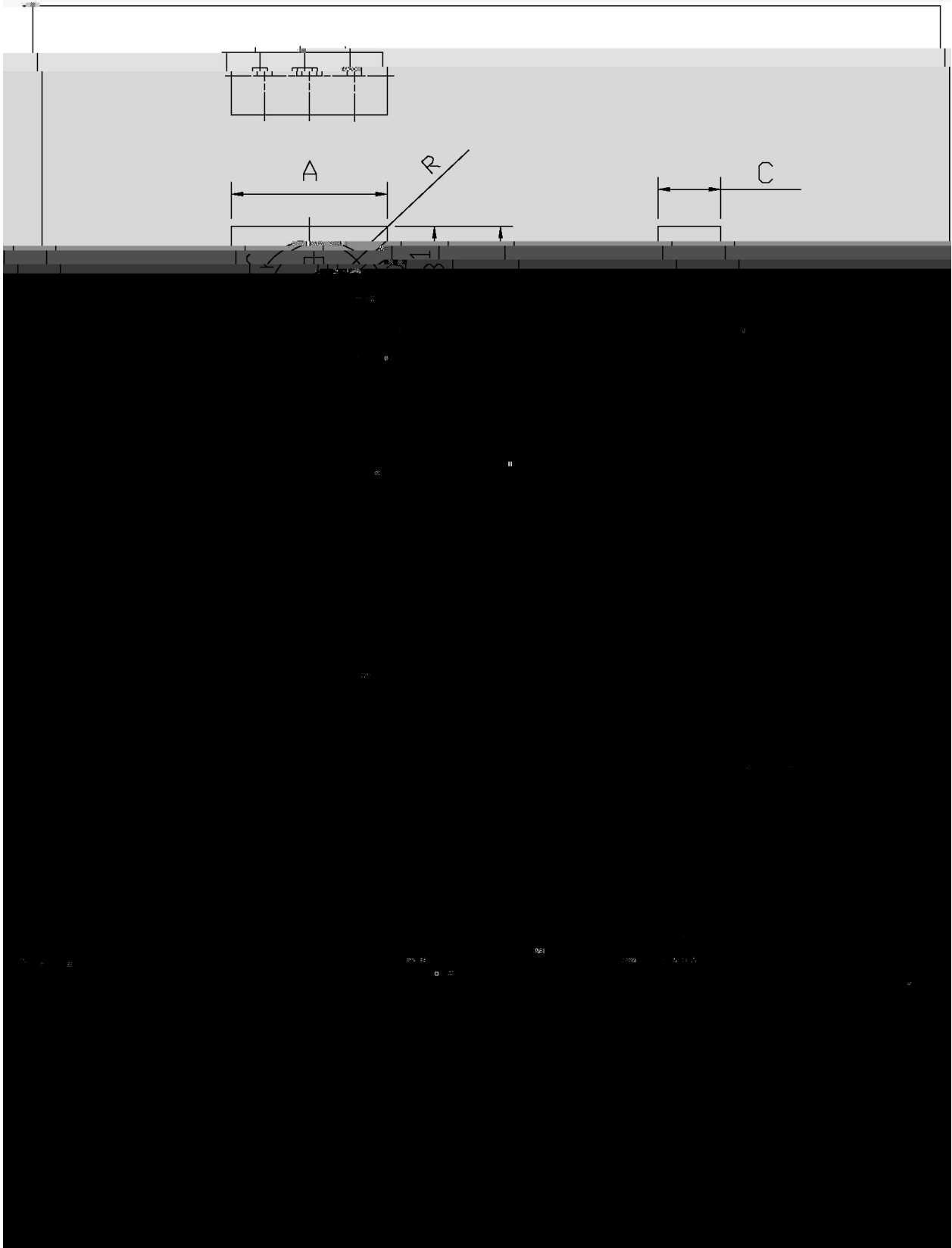
/ Electrical Characteristic Curve



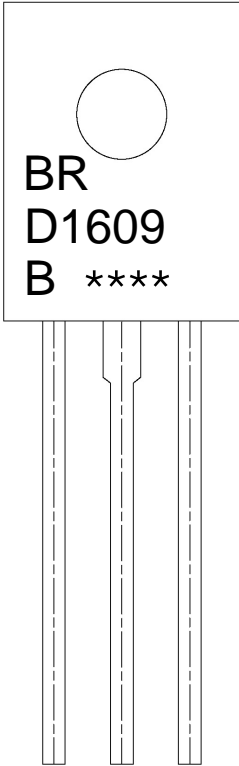
/ Package Dimensions

T0-126

单位: mm



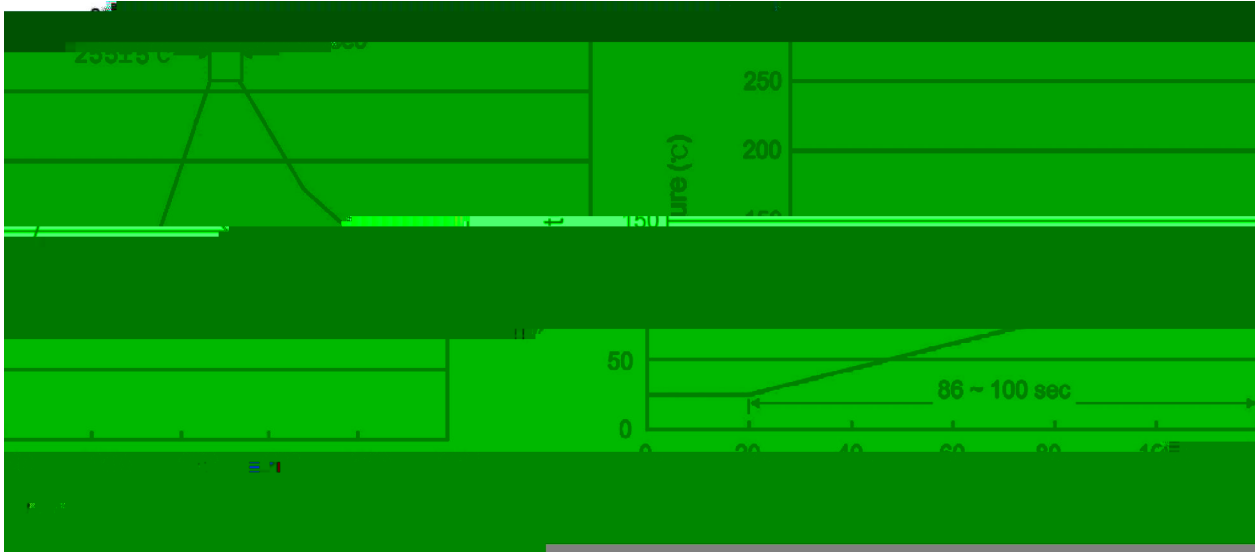
/ Marking Instructions



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- Note:
- BR: Company Code
  - D1609: Product Type.
  - B:  $h_{FE}$  Classifications Symbol
  - \*\*\*\*: Lot No. Code, code change with Lot No.

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



- |   |        |     |            |        |       |   |
|---|--------|-----|------------|--------|-------|---|
| 1 | 25     | 150 | 60         | 90sec; | Note: | 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