

**/ Descriptions**

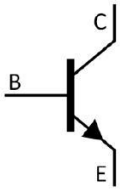
Silicon NPN transistor in a TO-92(R) Plastic Package.

**/ Features**

Low current, low voltage.

**/ Applications**

IF pre-amplifiers of television receivers.

**/ Equivalent Circuit****/ Pinning**

PIN1 Emitter      PIN 2 Base      PIN 3 Collector

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

See Marking Instructions.

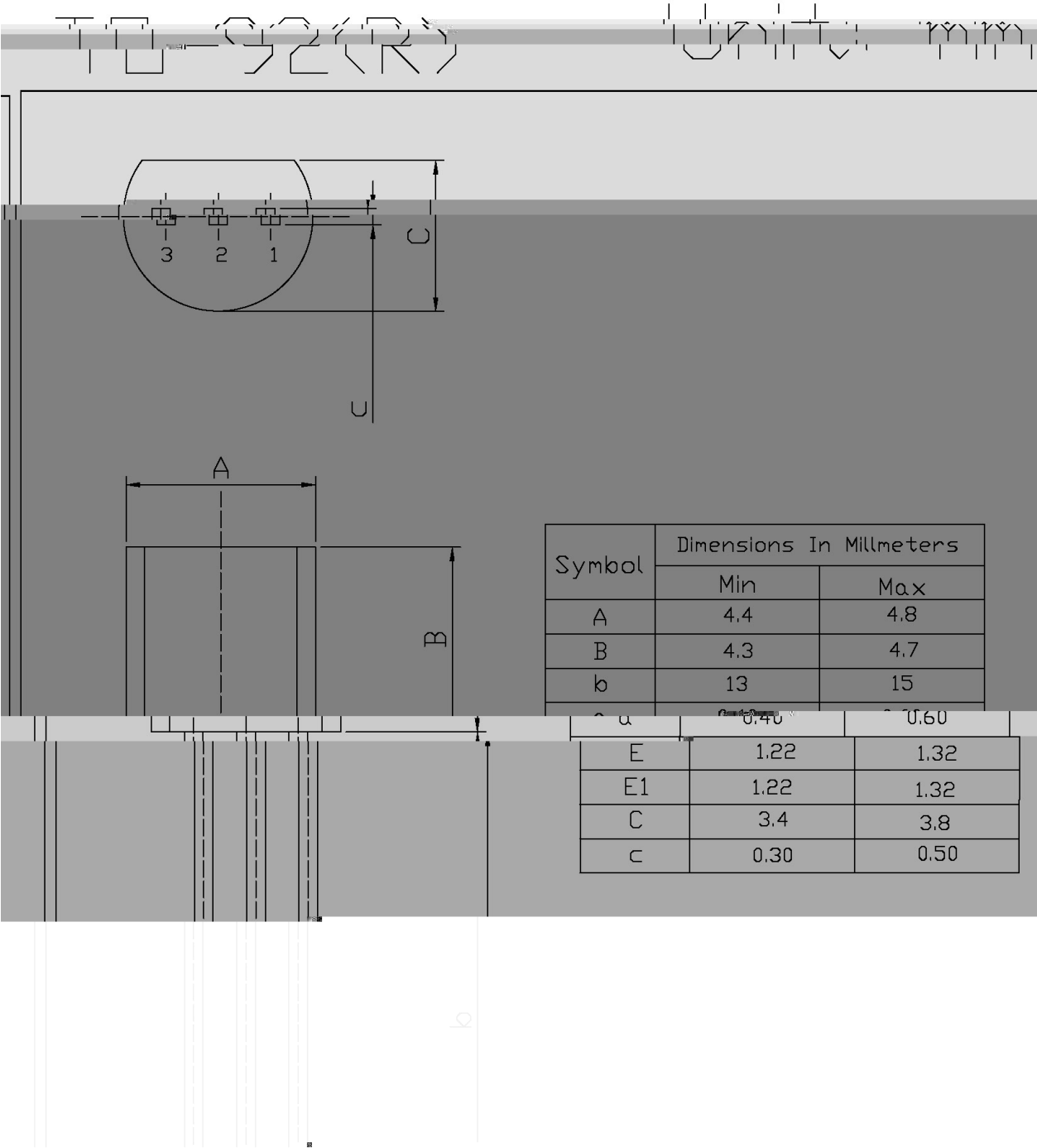
**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                      | Symbol    | Rating  | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage      | $V_{CBO}$ | 40      | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | 15      | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | 4.5     | V    |
| Collector Current - Continuous | $I_C$     | 100     | mA   |
| Peak Collector Current         | $I_{CM}$  | 200     | mA   |
| Collector Power Dissipation    | $P_C$     | 500     | mW   |
| Junction Temperature           | $T_j$     | 150     |      |
| Storage Temperature Range      | $T_{stg}$ | -55~150 |      |

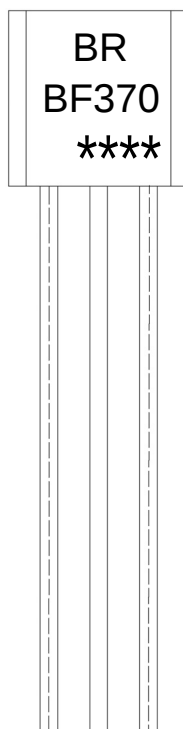
**/ Electrical Characteristics(Ta=25 )**

| Parameter                 | Symbol    | Test Conditions                      | Min | Typ | Max | Unit    |
|---------------------------|-----------|--------------------------------------|-----|-----|-----|---------|
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}=20V$ $I_E=0$                 |     |     | 30  | $\mu A$ |
| Emitter Cut-Off Current   | $I_{EBO}$ | $V_{EB}=2.0V$ $I_C=0$                |     |     | 0.1 | $\mu A$ |
| DC Current Gain           | $h_{FE}$  | $V_{CE}=1.0V$ $I_C=10mA$             | 40  |     |     |         |
| Collector Capacitance     | $C_c$     | $I_E=I_C=0$ $f=1.0MHz$ $V_{CB}=10V$  |     | 2.2 |     | pF      |
| Emitter Capacitance       | $C_e$     | $I_C=I_E=0$ $f=1.0MHz$ $V_{EB}=1.0V$ |     |     | 4.5 | pF      |
| Feedback Capacitance      | $C_{re}$  | $V_{CB}=10V$ $I_C=0$ $f=1.0MHz$      |     | 1.6 |     | pF      |
| Transition Frequency      | $f_T$     | $V_{CE}=10V$ $I_C=10mA$ $f=100MHz$   | 500 |     |     | MHz     |
|                           |           | $V_{CE}=10V$ $I_C=40mA$ $f=100MHz$   | 490 |     |     | MHz     |

/ Package Dimensions



**/ Marking Instructions**



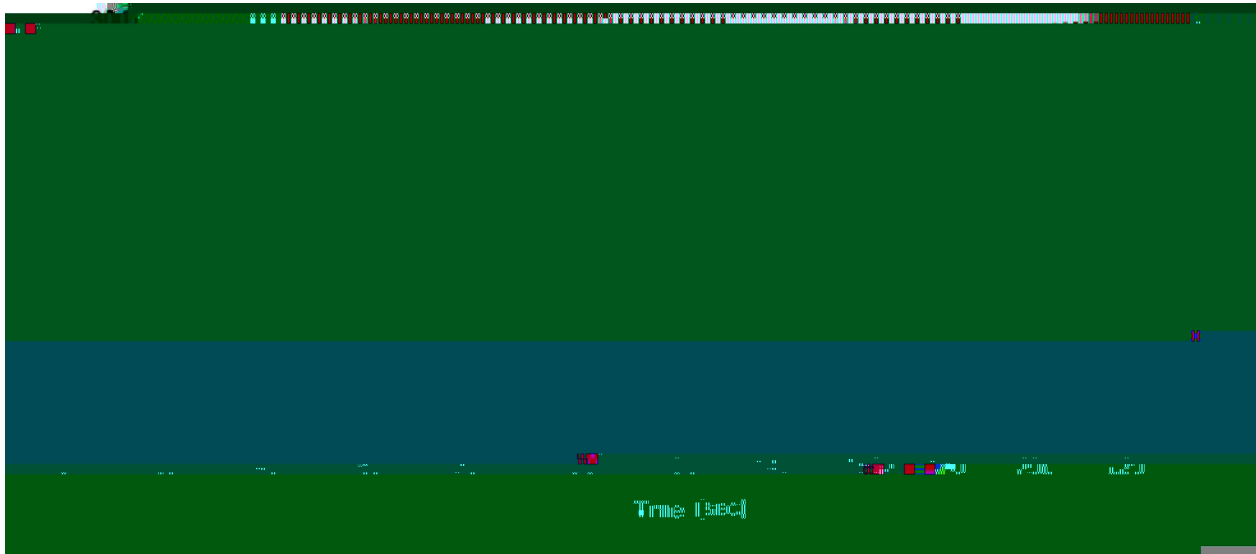
Note:

BR: Company Code.

BF370: Product Type.

\*\*\*\*: 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 mm3) |             |             |
|--------------|-------------|------------------|-------------------|-------------------------|-------------------|----------------------|-------------|-------------|
|              | Units/Bag / | Bags/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Bag                  | Inner Box   | Outer Box   |
| TO-92        | 1,000       | 10               | 10,000            | 5                       | 50,000            | 135×190              | 237×172×102 | 560×245×195 |
|              | 1,000       | 10               | 10,000            | 10                      | 100,000           | 135×190              | 237×172×102 | 560×245×375 |

/ AMMO

| Package Type | Units        |                  |                  |                         |                   | Dimension (unit mm3) |                            |
|--------------|--------------|------------------|------------------|-------------------------|-------------------|----------------------|----------------------------|
|              | Units/tape / | Tape/Inner Box / | Rows/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Inner Box            | Outer Box                  |
| TO-92        | 3,000        | 1                | 120              | 10                      | 30,000            | 328×230×42           | 480×346×235<br>547×407×268 |

/ Notices