

**/ Descriptions**

TO-92          NPN          Silicon NPN transistor in a TO-92 Plastic Package.

**/ Features**

Low noise, high DC current gain, high breakdown voltage

**/ Applications**

Low noise audio amplifier applications.

**/ Equivalent Circuit**



**/ Pinning**



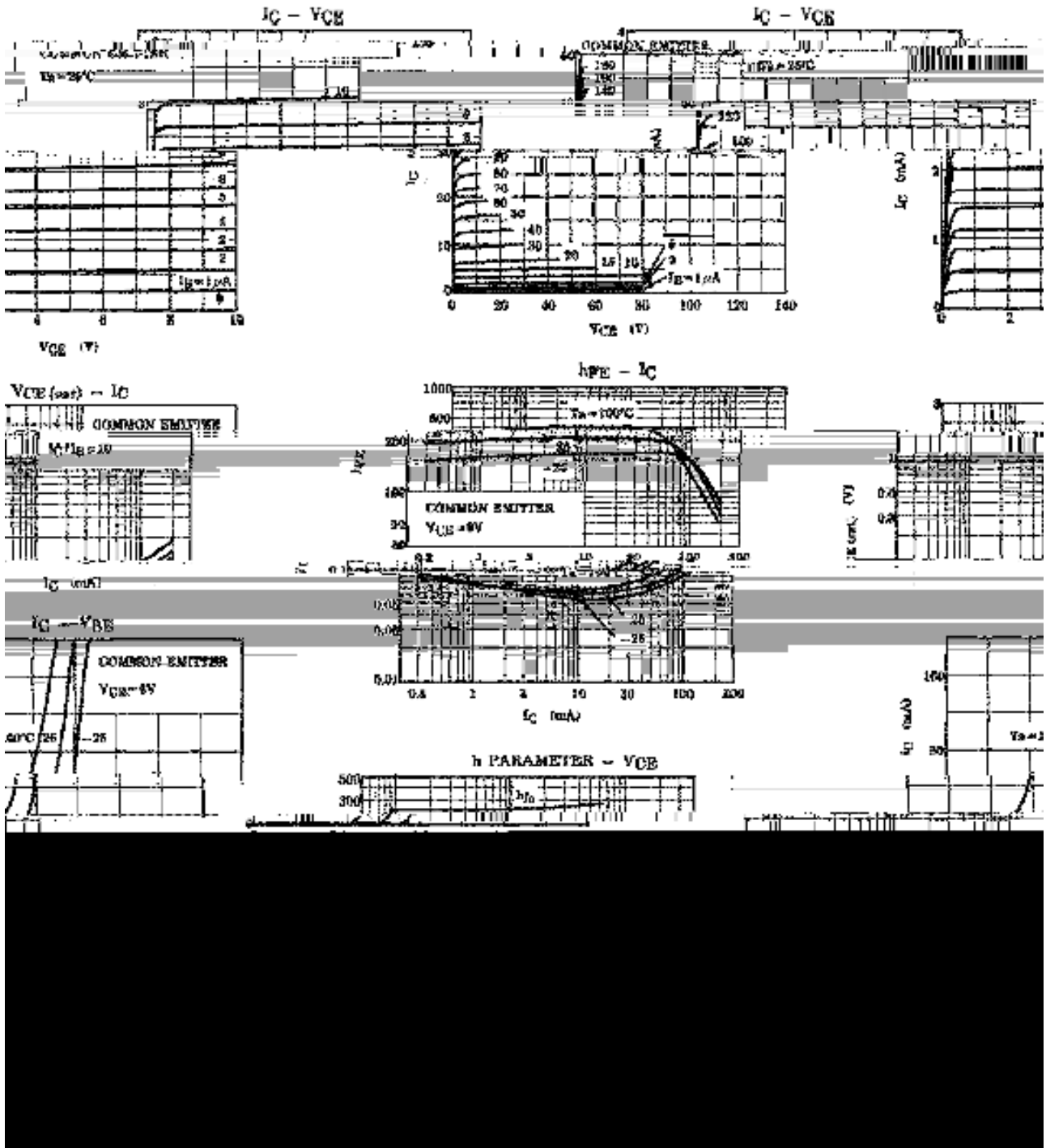
**1** PIN1 Base          PIN 2 Collector          PIN 3 Emitter

**/ hFE Classifications & Marking**

|  |         |         |
|--|---------|---------|
| h <sub>FE</sub> Classifications Symbol | GR      | BL      |
| h <sub>FE</sub> Range                  | 200~400 | 350~700 |

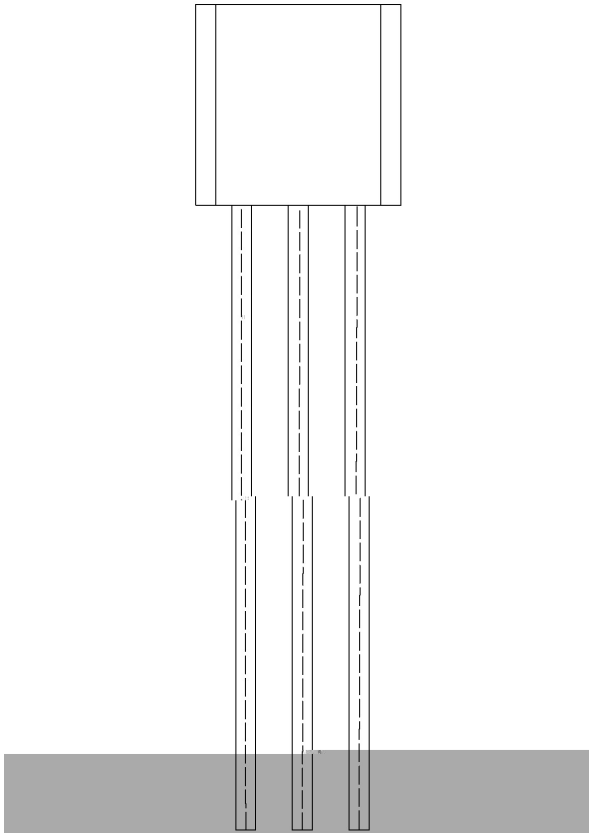
| Parameter                      | Symbol    | Rating                            | Unit |
|--------------------------------|-----------|-----------------------------------|------|
| Collector to Base Voltage      | $V_{CBO}$ | 120                               | V    |
| Collector to Emitter Voltage   | $V_{CEO}$ | 120                               | V    |
| Emitter to Base Voltage        | $V_{EBO}$ | 5.0                               | V    |
| Collector Current - Continuous | $I_C$     | 100                               | mA   |
| Emitter Current - Continuous   | $I_E$     | -100                              | mA   |
| Collector Power Dissipation    | $P_C$     | 300                               | mW   |
| Junction Temperature           | $T_j$     | 152 591d560TJ/TT7 6 1 Tf8 TD10752 |      |

/ Electrical Characteristic Curve





/ Marking Instructions



BR:

C2240

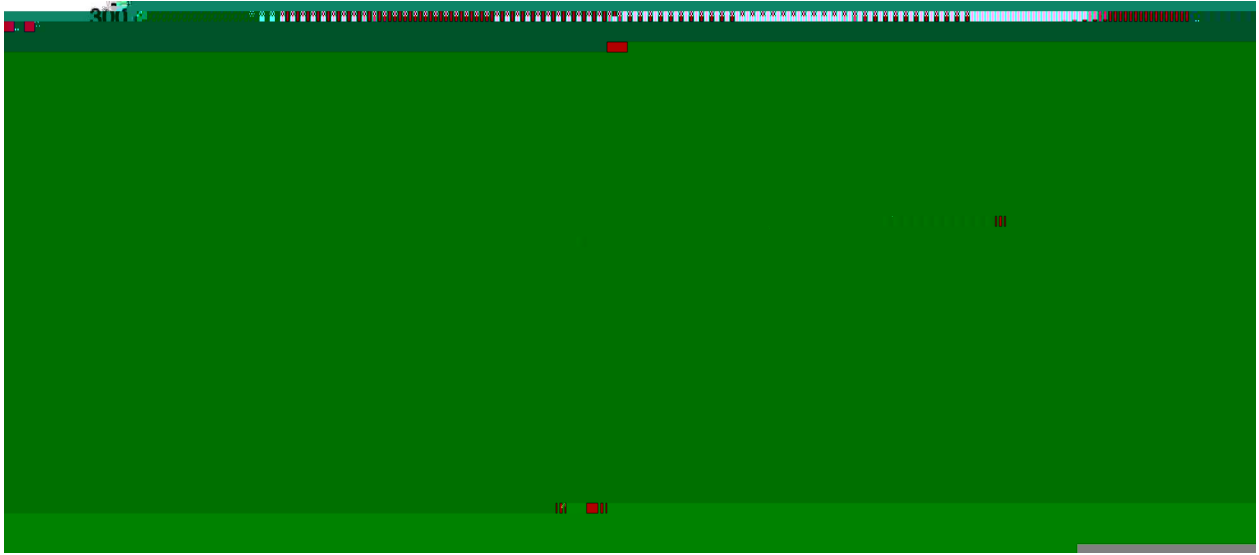
GR:  $h_{FE}$

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Note:

yewuction003Tj(R)A983 Tm557 TD0 TcGR:9 TD( )Tj/TT1TjE10.5533 0000.0005 74.2040in>1577.900034514.9e00

( ) / 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<br>封装形式 | Units 包装数量       |                       |                        |                              |                        | Dimension 包装尺寸 (unit: mm3) |             |             |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|----------------------------|-------------|-------------|
|                      | Units/Bag<br>只/袋 | Bags/Inner Box<br>袋/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Bag 袋                      | Inner Box 盒 | Outer Box 箱 |
| 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<br>封装形式 | Units 包装数量         |                        |                         |                              |                        | Dimension 包装尺寸 (unit: mm3) |                                   |
|----------------------|--------------------|------------------------|-------------------------|------------------------------|------------------------|----------------------------|-----------------------------------|
|                      | Units/tape<br>只/纸带 | Tape/Inner Box<br>纸带/盒 | Rows/Inner Box<br>纸带层/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Inner Box 盒                | Outer Box 箱                       |
| TO-92                | 3,000              | 1                      | 120                     | 10                           | 30,000                 | 328×230×42                 | 小箱 480×346×235,<br>大箱 547×407×268 |

/ Notices