

/ Descriptions

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

/ Features

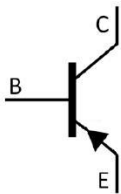
2SC5343

Low $V_{CE(sat)}$, low output capacitance, complementary pair with 2SC5343.

/ Applications

General small signal amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

| h_{FE} Classifications Symbol | O | Y | G | L |
|---------------------------------|--------|---------|---------|---------|
| h_{FE} Range | 70~140 | 120~240 | 200~400 | 300~700 |

/ Absolute Maximum Ratings(Ta=25)

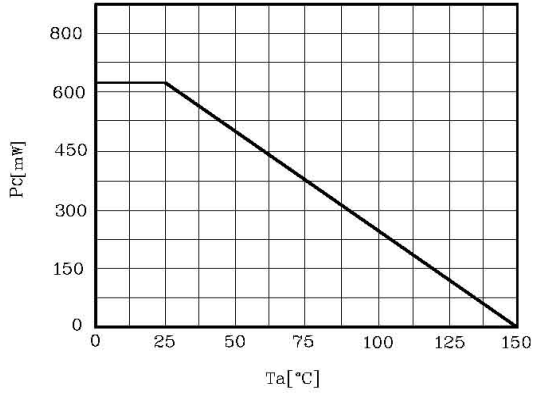
| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage | V_{CBO} | -50 | V |
| Collector to Emitter Voltage | V_{CEO} | -50 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current - Continuous | I_C | -150 | mA |
| Collector Power Dissipation | P_C | 625 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 150 | °C |

/ Electrical Characteristics(Ta=25)

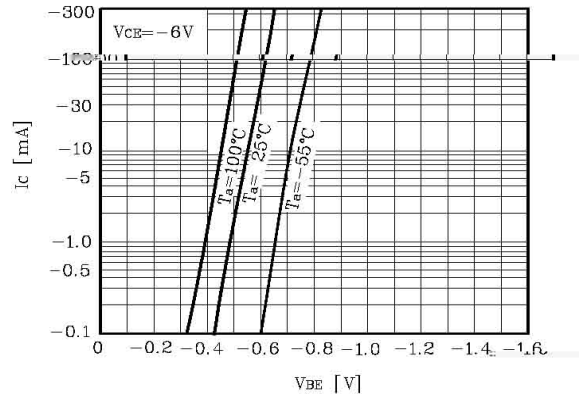
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---------------|--|------|-----|------|---------|
| Collector to Base Breakdown Voltage | V_{CBO} | $I_C=-100\mu A$ $I_E=0$ | -50 | | | V |
| Collector to Emitter Breakdown Voltage | V_{CEO} | $I_C=-1.0mA$ $I_B=0$ | -50 | | | V |
| Emitter to Base Breakdown Voltage | V_{EBO} | $I_E=-10\mu A$ $I_C=0$ | -5.0 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=-50V$ $I_E=0$ | | | -0.1 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=-5.0V$ $I_C=0$ | | | -0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=-6.0V$ $I_C=-2.0mA$ | 70 | | 700 | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-100mA$ $I_B=-10mA$ | | | -0.3 | V |
| Transition Frequency | f_T | $V_{CE}=-10V$ $I_C=-1.0mA$ | 80 | | | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=-10V$ $f=1.0MHz$ $I_E=0$ | | 4.0 | 7.0 | pF |
| Noise Figure | NF | $V_{CE}=-6.0V$ $f=1.0KHz$ $I_C=-0.1mA$ $R_g=10K$ | | | 10 | dB |

/ Electrical Characteristic Curve

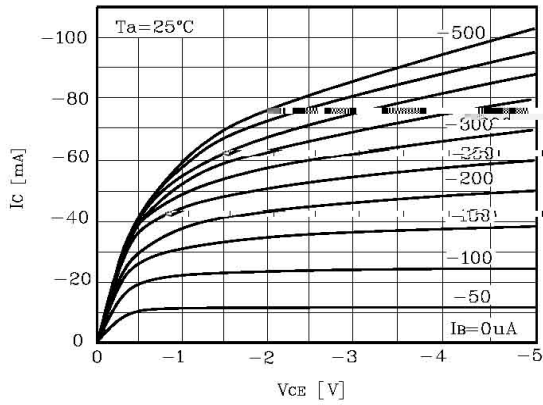
P_C-T_a



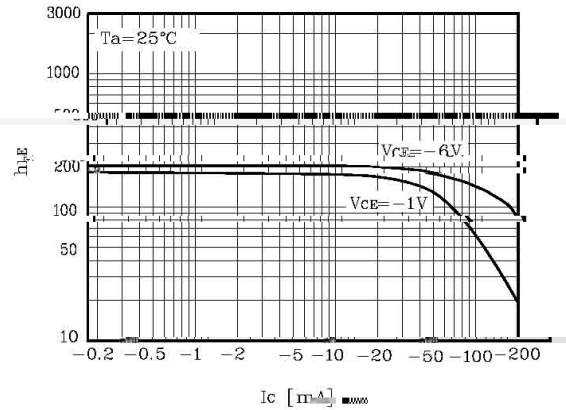
I_C-V_{BE}



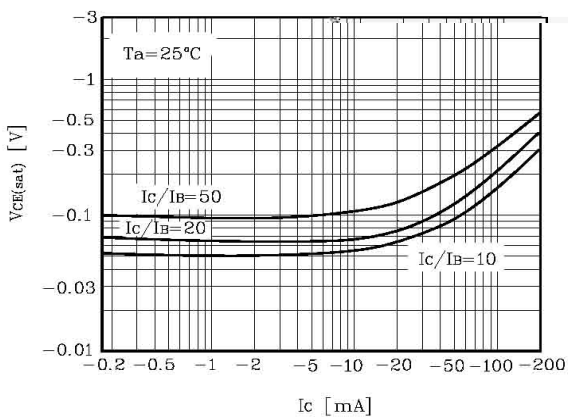
I_C-V_{CE}



$h_{FE}-I_C$



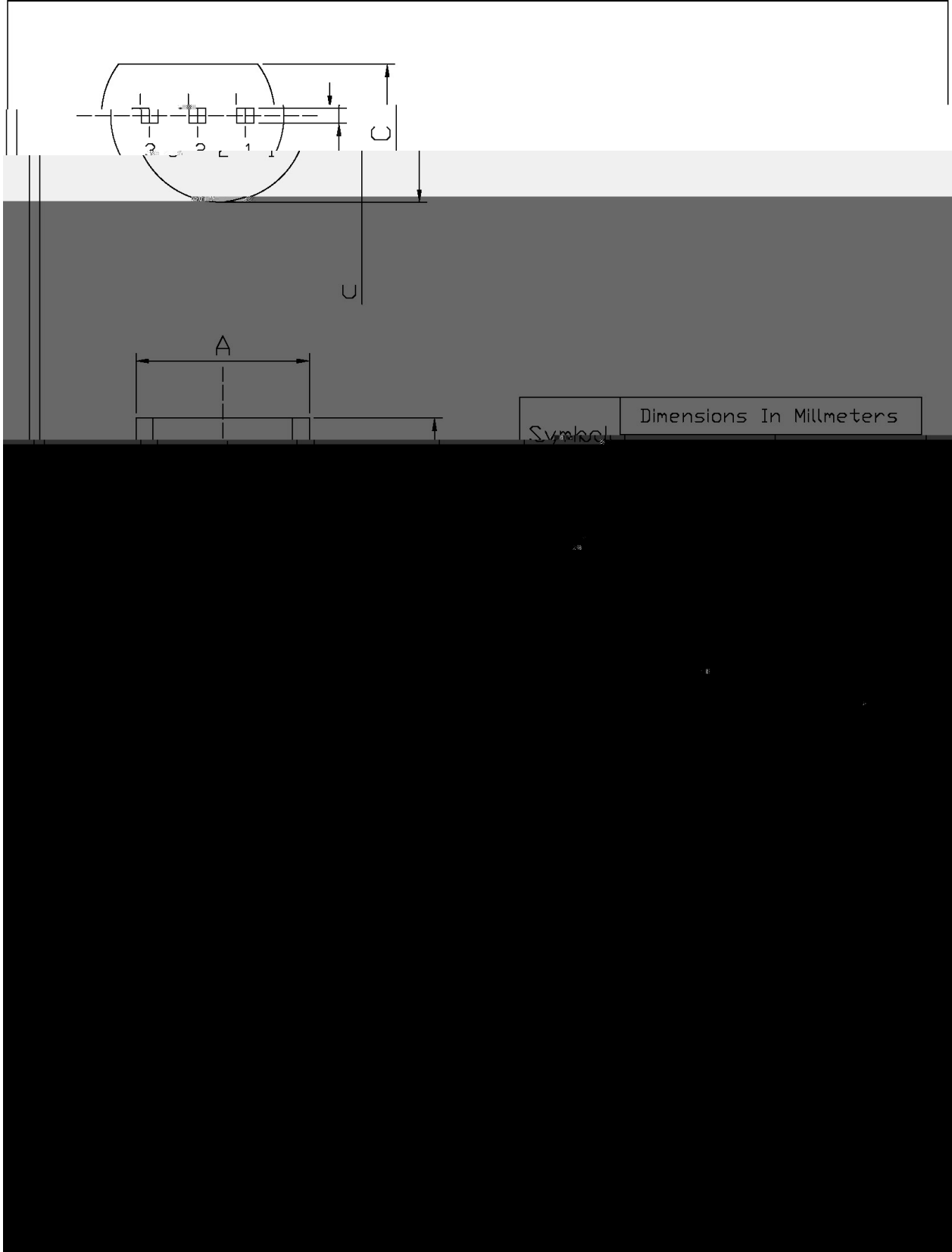
$V_{CE(sat)}-I_C$



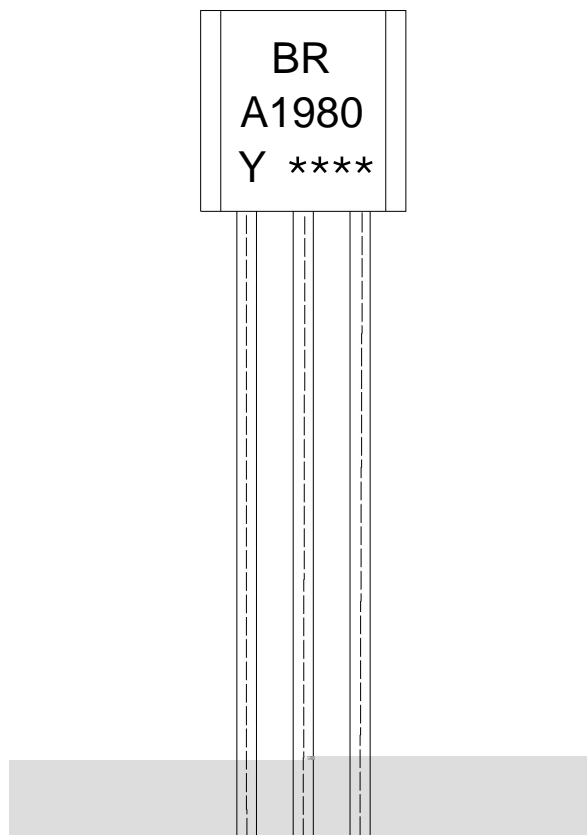
/ Package Dimensions

T0-92

Unit: mm



/ Marking Instructions



BR:

A1980

Y: h_{FE}

Note:

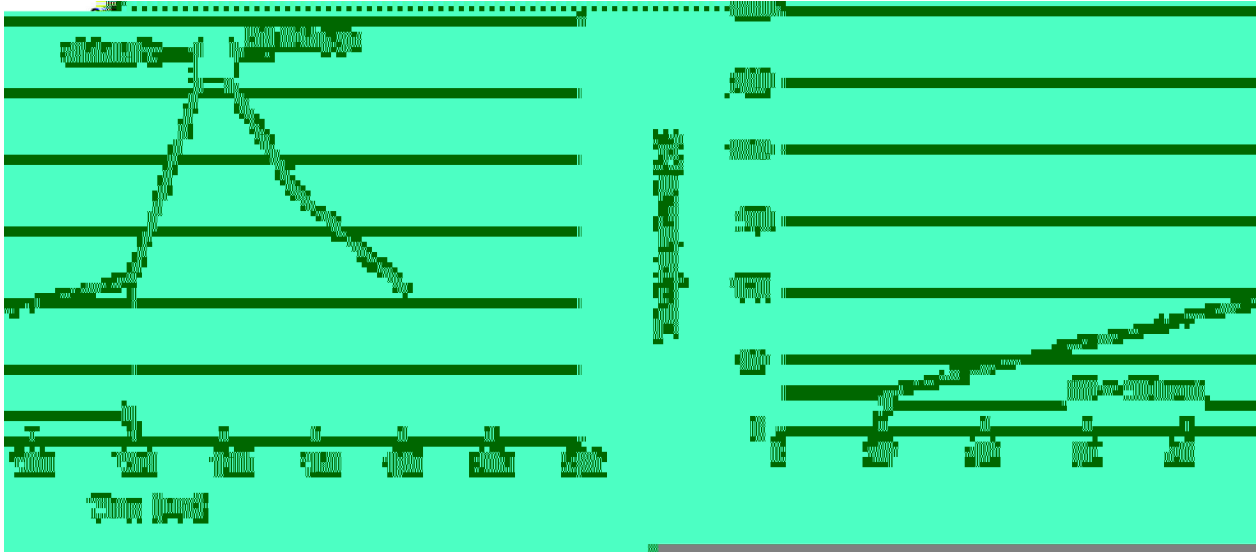
BR: Company Code.

A1980: Product Type.

Y: 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°C Time:10±1 sec

/ Packaging SPEC.

/ BULK

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm3) | | |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|----------------------------|-------------|-------------|
| | Units/Bag 只/袋 | Bags/Inner Box 袋/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 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 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm3) | |
|----------------------|--------------------|------------------------|-------------------------|------------------------------|------------------------|----------------------------|-----------------------------------|
| | Units/tape 只/纸带 | Tape/Inner Box 纸带/盒 | Rows/Inner Box 纸带层/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 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, 大箱 547×407×268 |

/ Notices