

/ Descriptions

Silicon PNP transistor in a TO-220F Plastic Package.

/ Features

Low $V_{CE(sat)}$, wide SOA, complementary pair with 2SD2395.

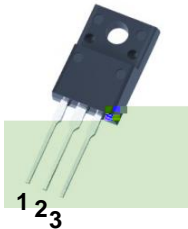
/ Applications

Voltage regulator, DC-DC converter and relay driver, audio frequency power amplifier output.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

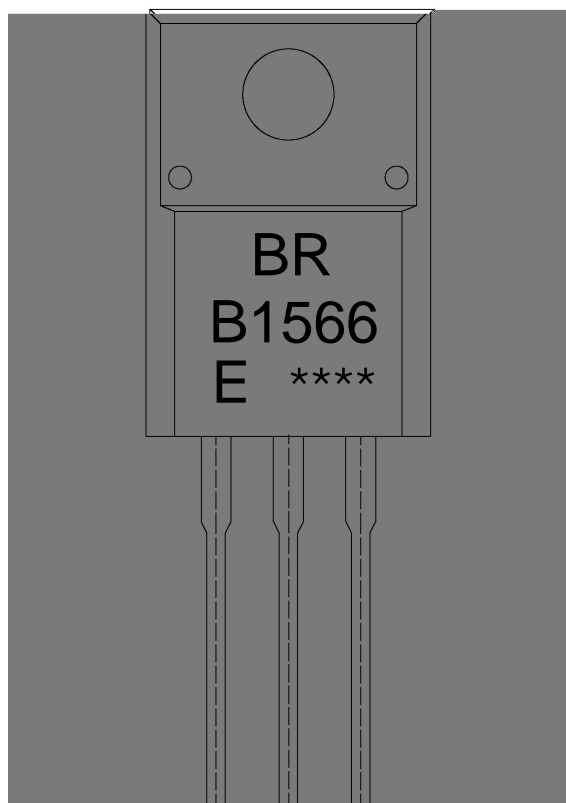
| | | |
|------------------------------------|---------|---------|
| h_{FE} Classifications Symbol | E | F |
| h_{FE} Range | 100 200 | 160 320 |

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------------------------|---------|------|
| Collector to Base Voltage | V_{CBO} | -60 | V |
| Collector to Emitter Voltage | V_{CEO} | -50 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current - Continuous | I_C | -3.0 | A |
| Collector Power Dissipation | P_C | 2.0 | W |
| Collector Power Dissipation | $P_C(T_c=25^\circ\text{C})$ | 25 | 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} | $I_C=-50\mu\text{A}$ | -60 | | | V |
| Collector to Base Breakdown Voltage | V_{CEO} | $I_C=-1.0\text{mA}$ | -50 | | | V |
| Emitter to Base Breakdown Voltage | V_{EBO} | $I_E=-50\mu\text{A}$ | -5.0 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=-60\text{V}$ $I_E=0$ | | | -1.0 | μA |
| Emitter Cut-Off Current | I_{EBO} | | | | | |

2SB1566
Rev.E Mar.-2016

/ Marking Instructions



Note:

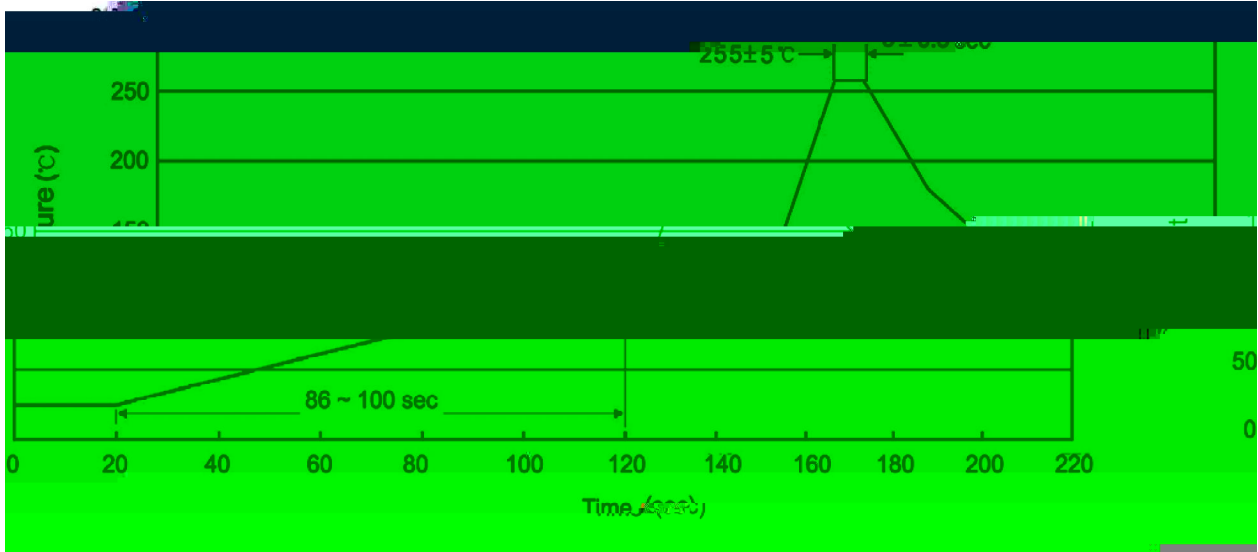
BR: Company Code.

B1566: Product Type.

E: 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 Time:10±1 sec

/ Packaging SPEC.

/ BULK

| Package Type | Units | | | | | Dimension (unit mm ³) | | |
|--------------|-------------|------------------|-------------------|-------------------------|-------------------|-----------------------------------|-------------|-------------|
| | 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 |

/ TUBE

| Package Type | Units | | | | | Dimension (unit mm ³) | | |
|--------------|--------------|-------------------|-------------------|-------------------------|-------------------|-----------------------------------|------------|-------------|
| | Units/Tube / | Tubes/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Tube | Inner Box | Outer Box |
| TO-220/F | 50 | 20 | 1,000 | 5 | 5,000 | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

/ Notices