

/ Descriptions

Silicon NPN transistor in a SOT-323 Plastic Package.

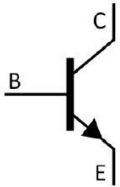
/ Features

High current, low voltage complementary pair with BC807W.

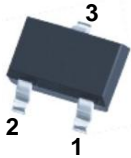
/ Applications

General purpose switching and amplification.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

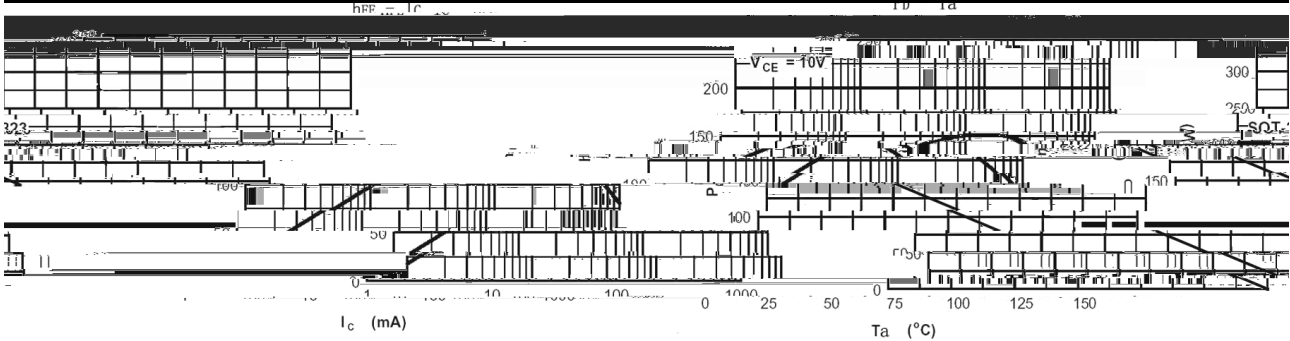
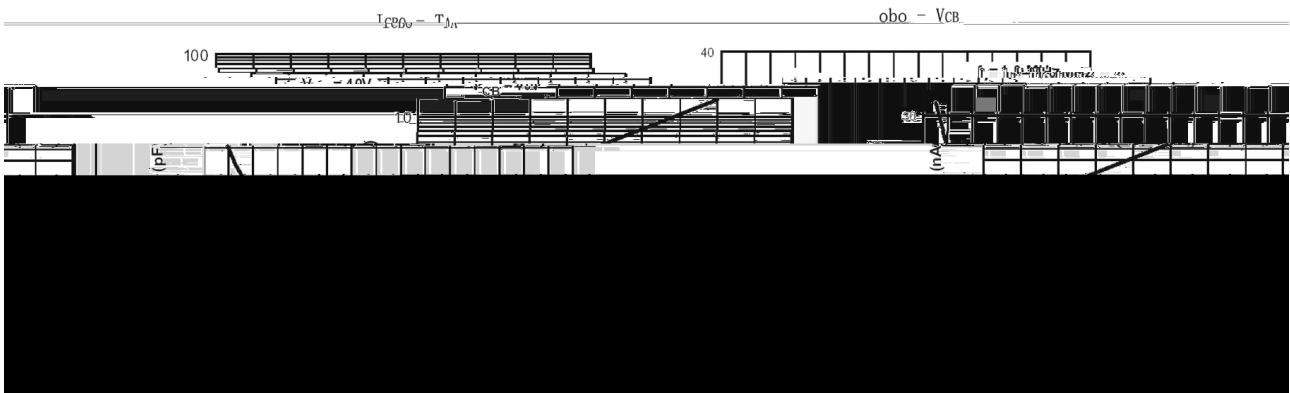
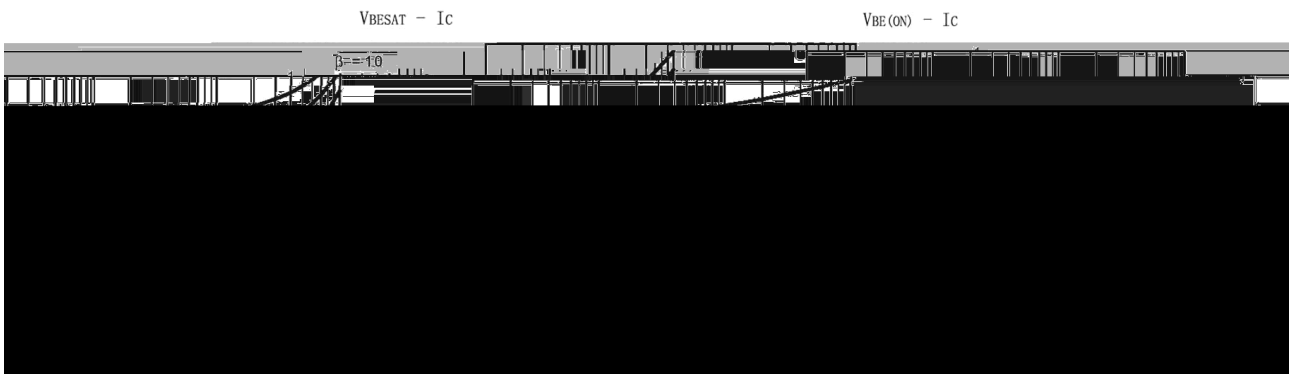
/ Marking

| | | | |
|------------------------------------|---------|---------|---------|
| h_{FE} Classifications Symbol | 16 | 25 | 40 |
| h_{FE} Range | 100 250 | 160 400 | 250 600 |
| Marking | H6A | H6B | H6C |

| Parameter | Symbol | Rating | Unit |
|-------------------------------------|-----------|---------|------|
| Collector to Base Voltage | V_{CBO} | 50 | V |
| Collector to Emitter Voltage | V_{CEO} | 45 | V |
| Emitter to Base Voltage | V_{EBO} | 5.0 | V |
| Collector Current - Continuous | I_C | 500 | mA |
| Peak Collector Current - Continuous | I_{CM} | 1.0 | A |
| Collector Power Dissipation | P_C | 200 | mW |
| Junction Temperature | T_j | 150 | |
| Storage Temperature Range | T_{stg} | -55 150 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---------------|---------------------------|-----|-----|-----|---------|
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=20V$ $I_E=0$ | | | 5.0 | μA |
| Emitter Base Cut-Off Current | I_{EBO} | $V_{EB}=5.0V$ $I_C=0$ | | | 0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=1.0V$ $I_C=100mA$ | 100 | | 600 | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500mA$ $I_B=50mA$ | | | 0.7 | V |
| Base to Emitter Voltage | V_{BE} | $V_{CE}=1.0V$ $I_C=500mA$ | | | 1.2 | V |

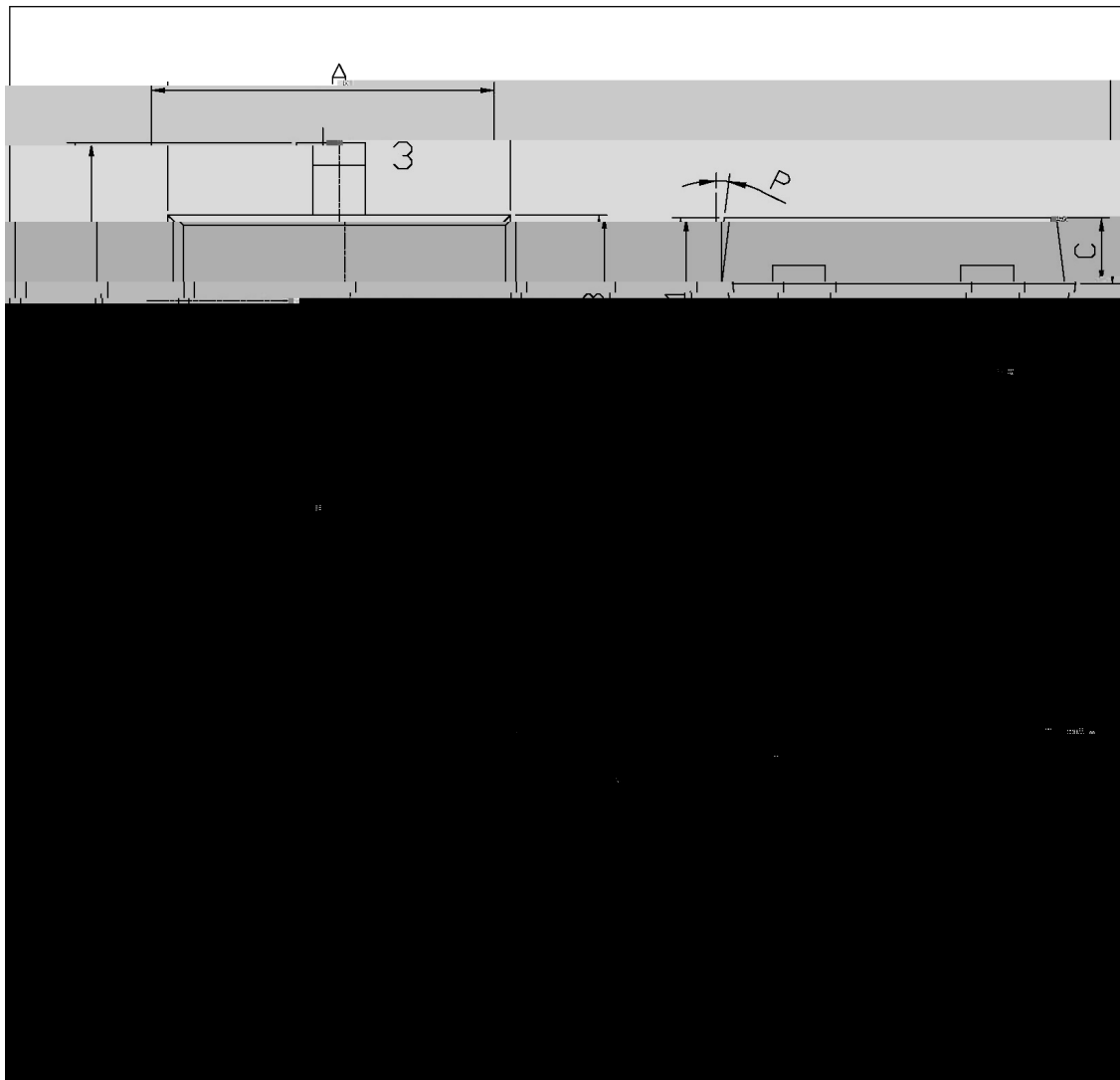
/ Electrical Characteristic Curve



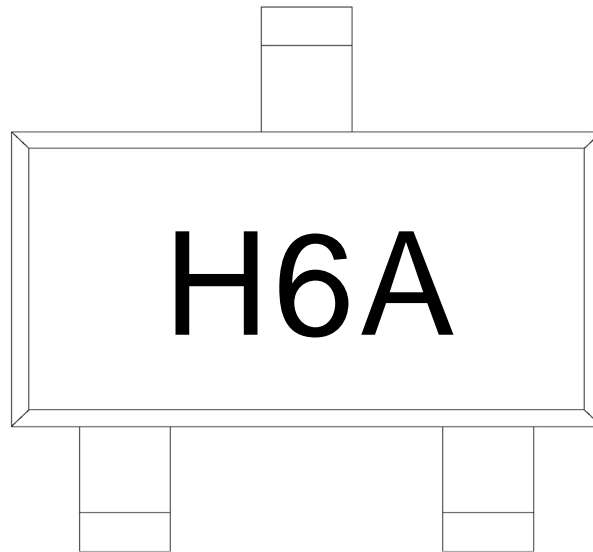
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



H

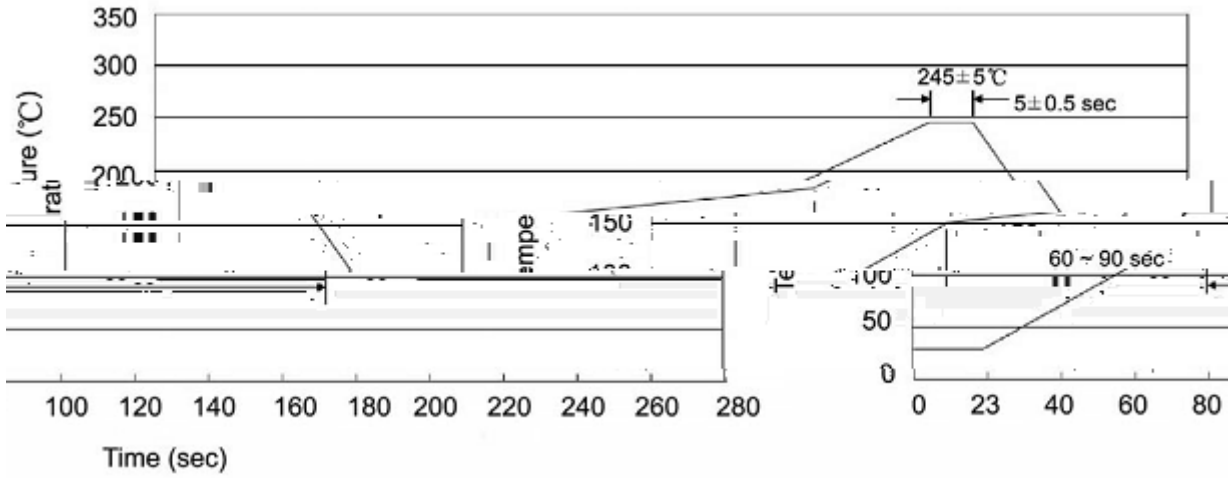
6A

Note:

H: Company Code.

6A: Product Type.

() / Resistance to Soldering Heat Test Conditions



Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245 | 5 | 5 | 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 ±5 10 ±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type | Units | | | | | Dimension (unit mm ³) | | |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
| | Units/Reel | Reels/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Reel | Inner Box | Outer Box |
| SOT-323 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7 ×8 | 180×120×180 | 390×385×205 |

/ Notices