

## / Descriptions

Silicon NPN transistor in a SOT-323 Plastic Package.

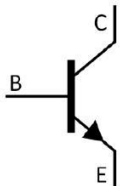
## / Features

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

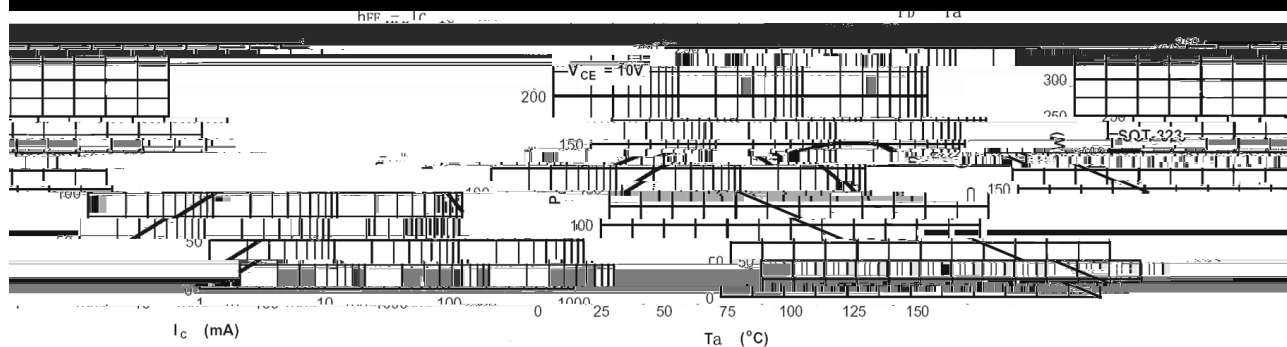
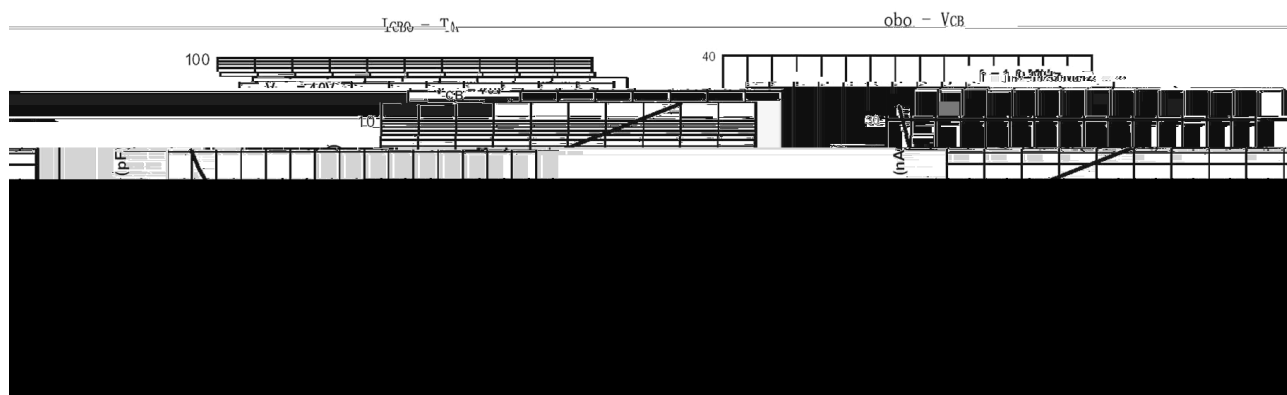
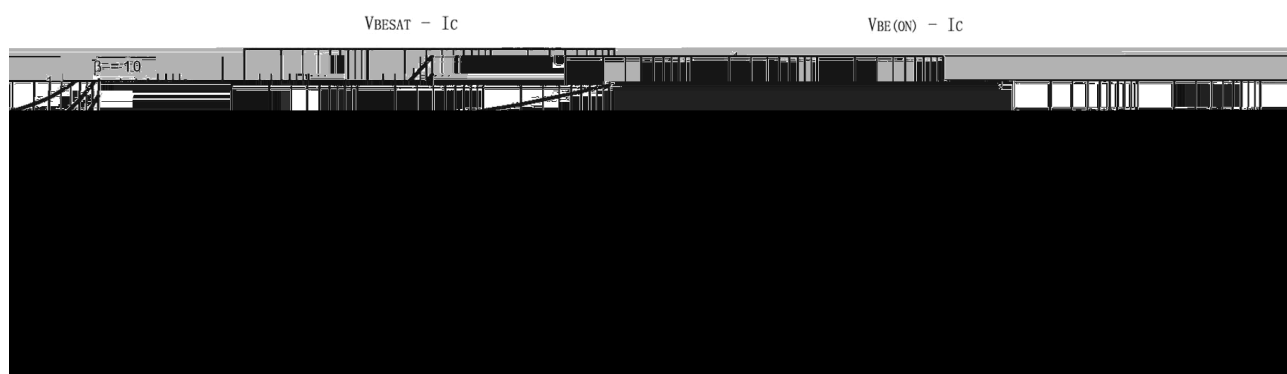
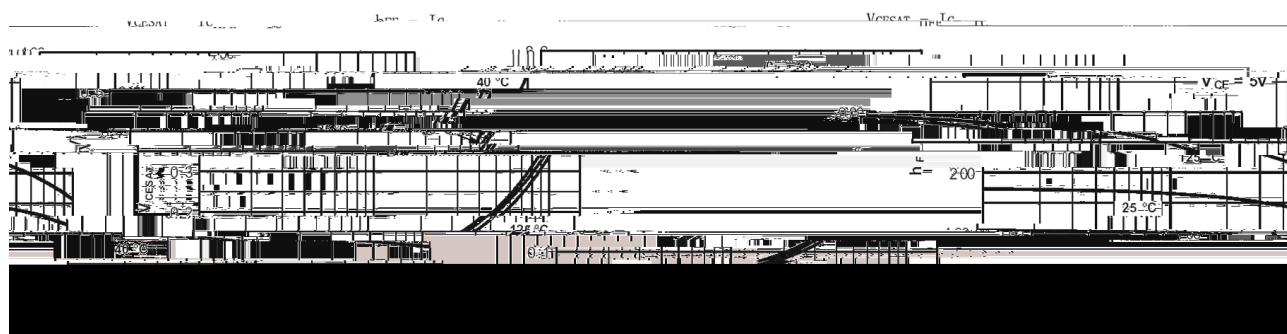
## / Marking

|                                    |         |         |         |
|------------------------------------|---------|---------|---------|
| $h_{FE}$ Classifications<br>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 | $\mu A$ |
| Emitter Base Cut-Off Current            | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$     |     |     | 0.1 | $\mu A$ |
| 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       |

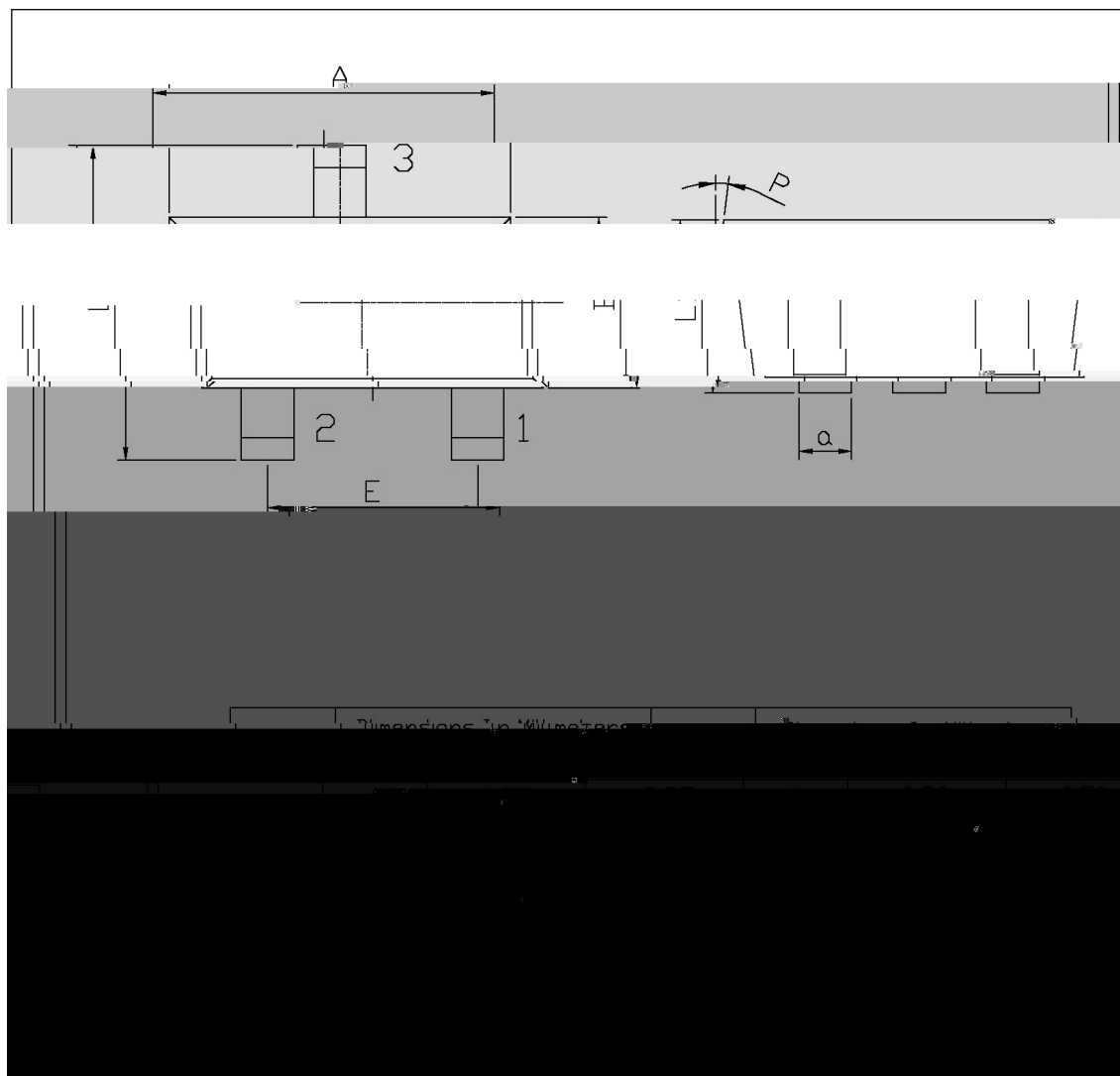
/ Electrical Characteristic Curve



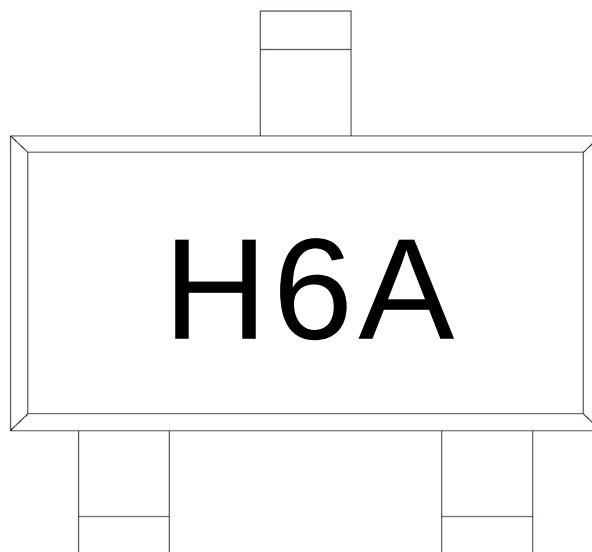
/ Package Dimensions

SOT-323

单位: mm



**/ Marking Instructions**



H

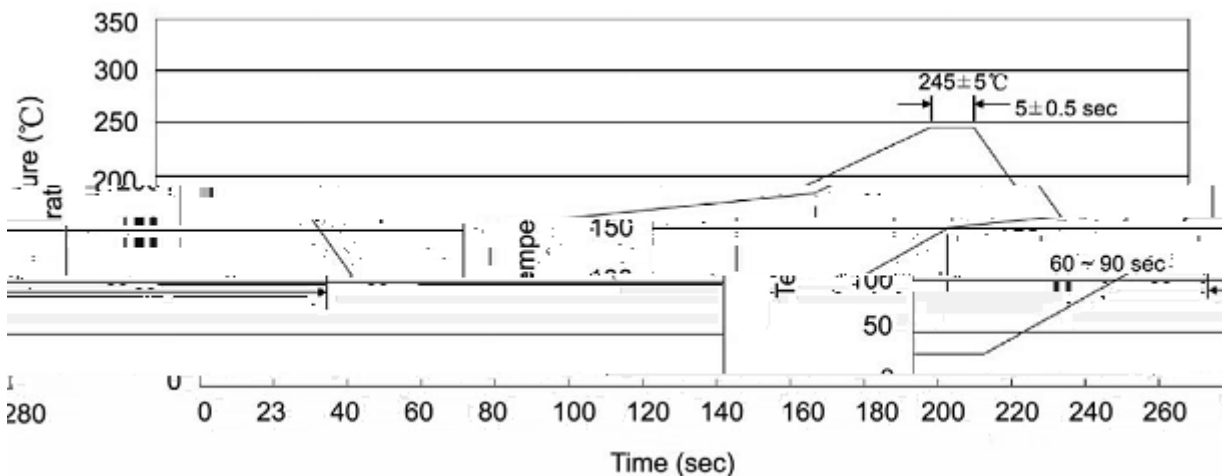
6A

Note:

H: Company Code.

6A: Product Type.

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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 <sup>3</sup> ) |             |             |
|--------------|------------|-----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | 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