

## PNP Transistors

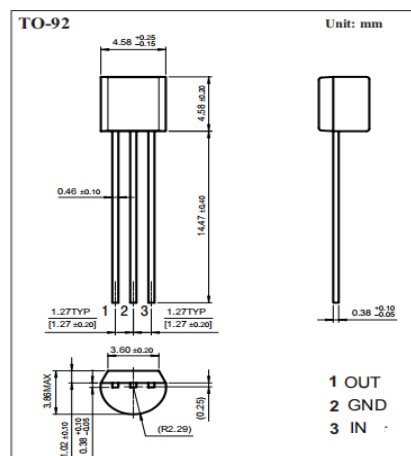
### BC808-40

#### Features

- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary NPN type available(BC818)

#### Absolute Maximum Ratings Ta = 25°C

| Parameter                 | Symbol           | Rating      | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage    | V <sub>CB0</sub> | -30         | V    |
| Collector-emitter voltage | V <sub>CE0</sub> | -25         | V    |
| Emitter-base voltage      | V <sub>EB0</sub> | -5          | V    |
| Collector current (DC)    | I <sub>c</sub>   | -800        | mA   |
| Power dissipation         | P <sub>D</sub>   | 300         | mW   |
| Junction temperature      | T <sub>j</sub>   | 150         | °C   |
| Storage temperature       | T <sub>stg</sub> | -65 to +150 | °C   |



#### Electrical Characteristics Ta = 25°C

| Parameter                              | Symbol               | Test conditions                                             | Min | Typ | Max  | Unit |
|----------------------------------------|----------------------|-------------------------------------------------------------|-----|-----|------|------|
| Collector-to-baser breakdown voltage   | V <sub>CB0</sub>     | I <sub>c</sub> = -100μA, V <sub>BE</sub> = 0                | -30 |     |      | V    |
| Collector-to-emitter breakdown voltage | V <sub>CE0</sub>     | I <sub>c</sub> = -10 mA, I <sub>B</sub> = 0                 | -25 |     |      | V    |
| Emitter-to-base breakdown voltage      | V <sub>EB0</sub>     | I <sub>E</sub> = -100μA, I <sub>C</sub> = 0                 | -5  |     |      | V    |
| Collector cutoff current               | I <sub>CBO</sub>     | V <sub>CB</sub> = -25 V, V <sub>BE</sub> = 0                |     |     | -100 | nA   |
| Emitter cutoff current                 | I <sub>EBO</sub>     | V <sub>EB</sub> = -4 V, I <sub>C</sub> = 0                  |     |     | -100 | nA   |
| DC current gain *                      | h <sub>FE</sub>      | I <sub>c</sub> = -100 mA, V <sub>CE</sub> = -1 V            | 100 |     | 630  |      |
|                                        |                      | I <sub>c</sub> = -300 mA, V <sub>CE</sub> = -1 V            | 60  |     |      |      |
| Collector saturation voltage *         | V <sub>CE(sat)</sub> | I <sub>c</sub> = -500 mA, I <sub>B</sub> = -50 mA           |     |     | -0.7 | V    |
| Base emitter on voltage                | V <sub>BE(on)</sub>  | V <sub>CE</sub> = -1V, I <sub>C</sub> = 300mA               |     |     | -1.2 | V    |
| Output Capacitance                     | C <sub>ob</sub>      | V <sub>CB</sub> = -10V, f = 1MHz                            |     |     | 12   | pF   |
| Transition frequency                   | f <sub>T</sub>       | I <sub>c</sub> = -10 mA, V <sub>CE</sub> = -5 V, f = 50 MHz |     | 100 |      | MHz  |

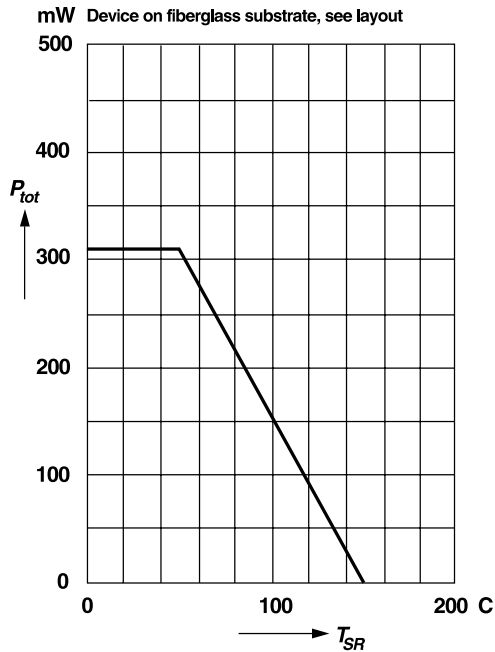
\* Pulsed: PW ≤ 350 us, duty cycle ≤ 2%

#### Marking

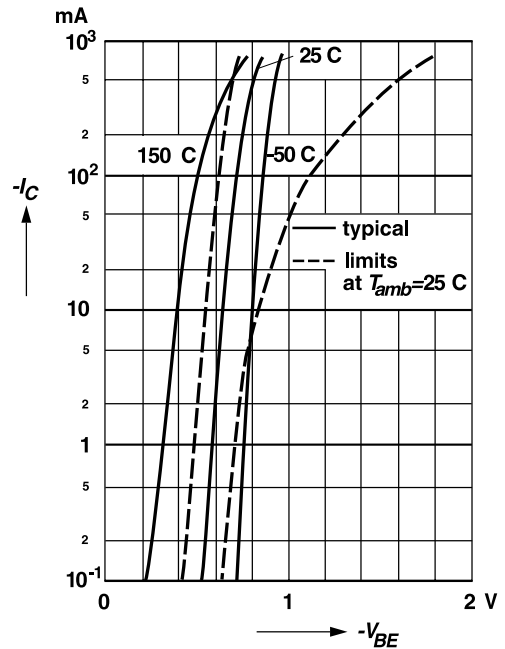
| NO.             | BC808-16  | BC808-25  | BC808-40  |
|-----------------|-----------|-----------|-----------|
| Marking         | 5E        | 5F        | 5G        |
| h <sub>FE</sub> | 100 ~ 250 | 160 ~ 400 | 250 ~ 630 |

### ■ Typical Characteristics

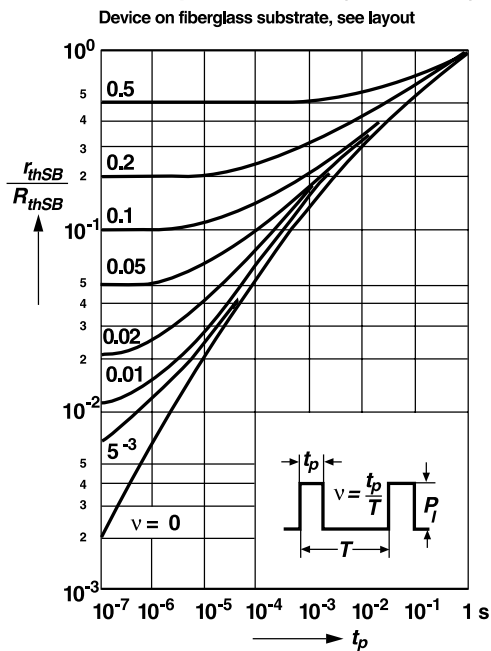
**Admissible power dissipation versus temperature of substrate backside**



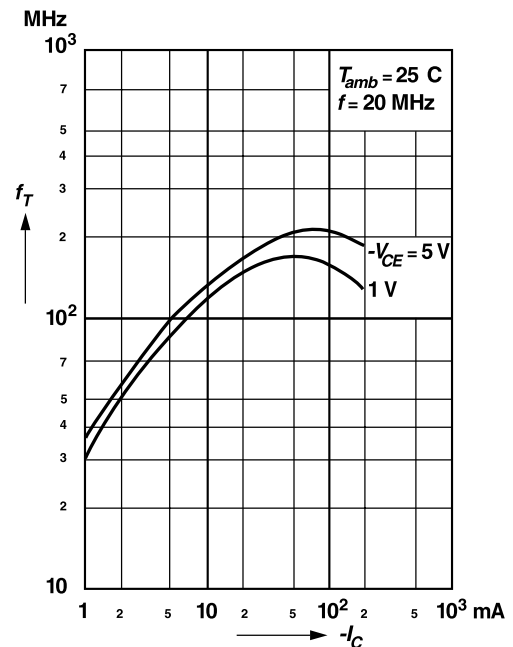
**Collector current versus base-emitter voltage**



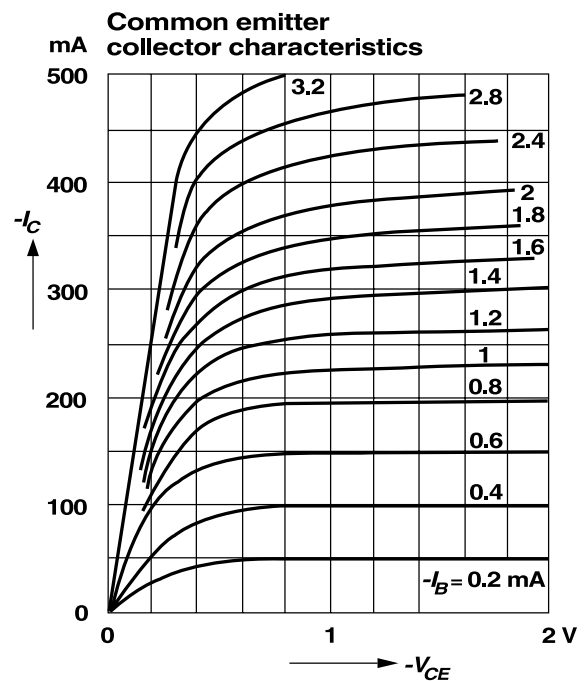
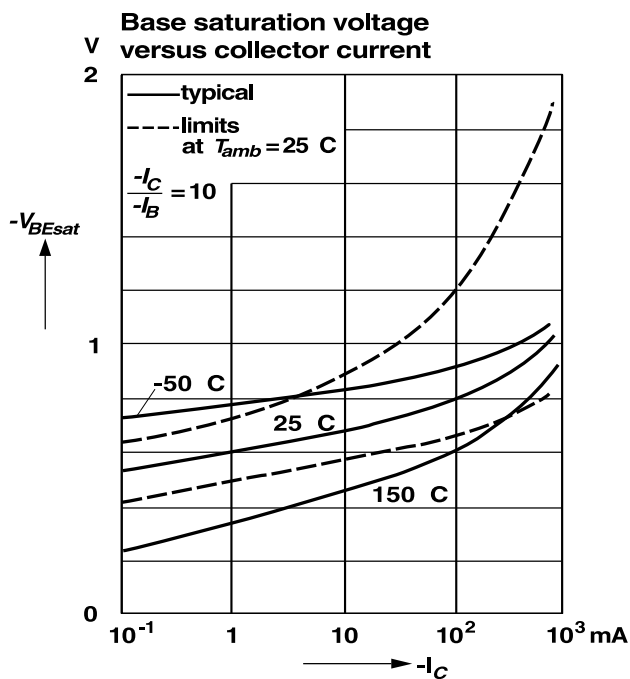
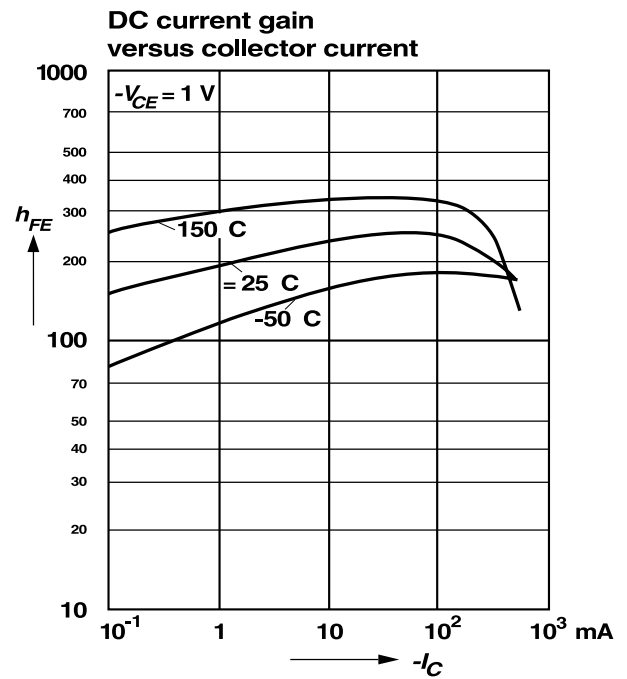
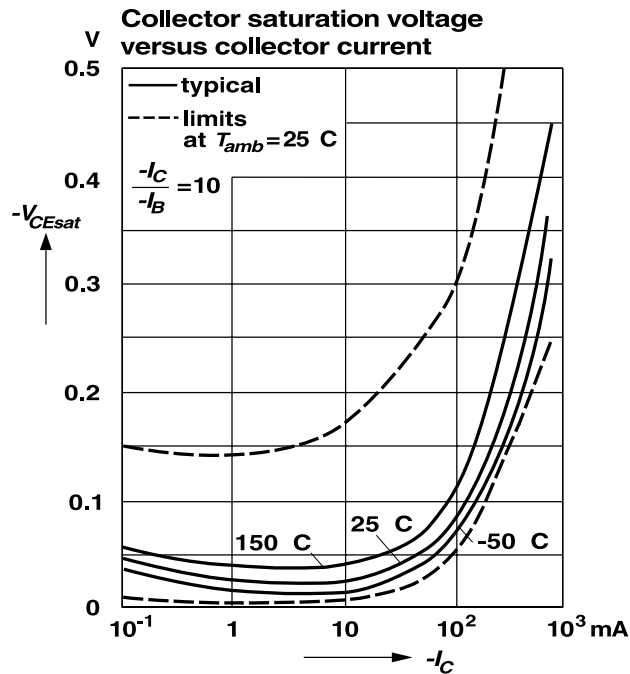
**Pulse thermal resistance versus pulse duration (normalized)**



**Gain-bandwidth product versus collector current**



### ■ Typical Characteristics



## ■ Typical Characteristics

