

# BC327/328

# PNP EPITAXIAL SILICON TRANSISTOR

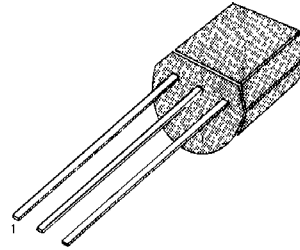
## SWITCHING AND AMPLIFIER APPLICATIONS

- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

| Characteristic                       | Symbol           | Rating    | Unit |
|--------------------------------------|------------------|-----------|------|
| Collector-Emitter Voltage<br>: BC327 | V <sub>CEs</sub> | -50       | V    |
| : BC328                              |                  | -30       | V    |
| Collector-Emitter Voltage<br>: BC327 | V <sub>CEo</sub> | -45       | V    |
| : BC328                              |                  | -25       | V    |
| Emitter-Base Voltage                 | V <sub>EBo</sub> | -5        | V    |
| Collector Current (DC)               | I <sub>c</sub>   | -800      | mA   |
| Collector Dissipation                | P <sub>c</sub>   | 625       | mW   |
| Junction Temperature                 | T <sub>J</sub>   | 150       | °C   |
| Storage Temperature                  | T <sub>STG</sub> | -55 ~ 150 | °C   |

TO-92



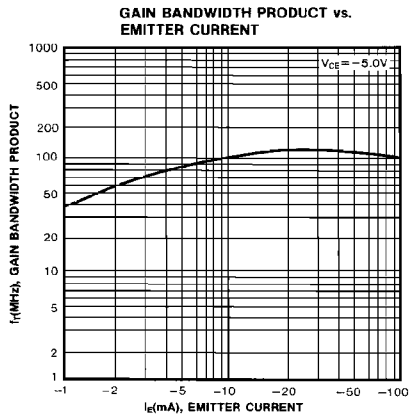
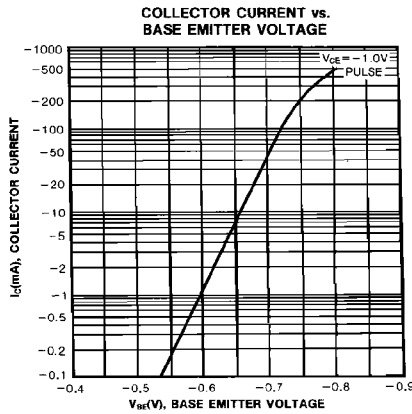
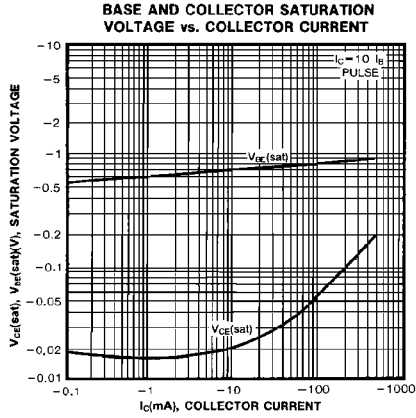
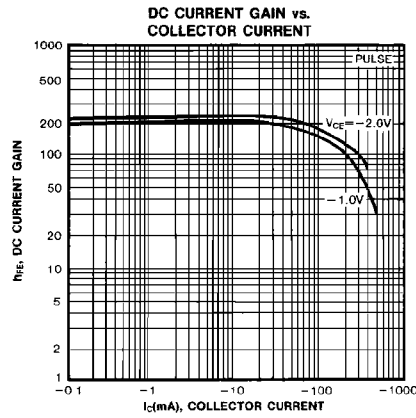
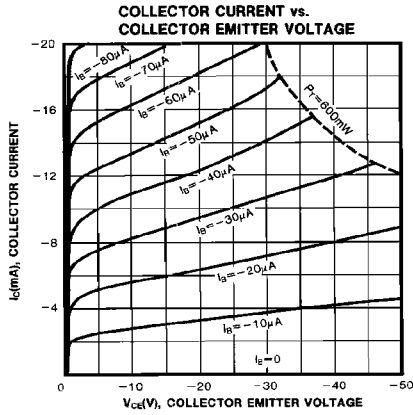
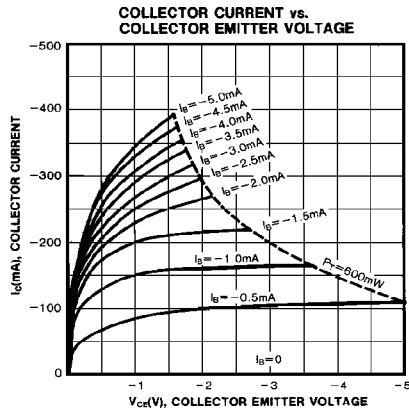
1. Collector 2. Base 3. Emitter

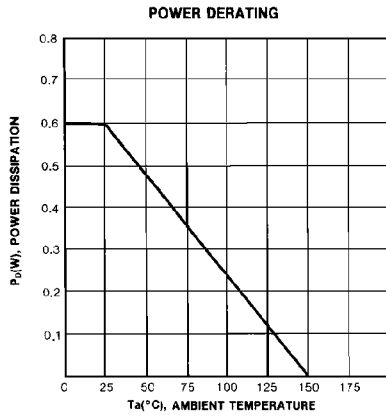
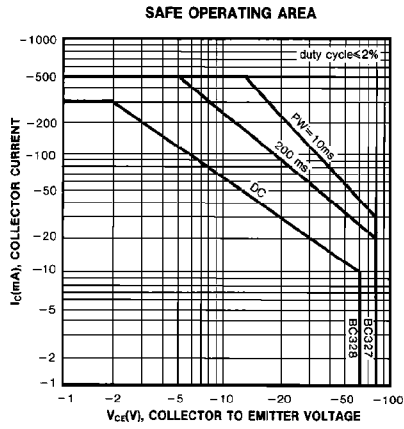
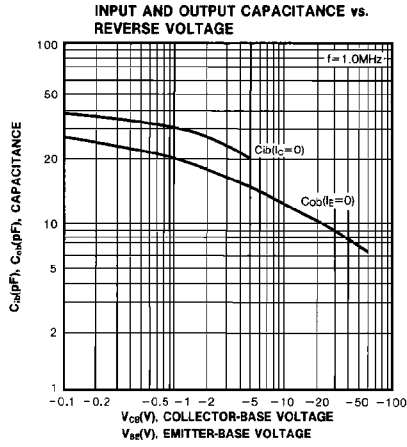
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

| Characteristic                                 | Symbol                | Test Conditions                                 | Min | Typ | Max  | Unit |
|--|-----------------------|---|-----|-----|------|------|
| Collector Emitter Breakdown Voltage<br>: BC327 | BV <sub>CEo</sub>     | I <sub>c</sub> = -10mA, I <sub>B</sub> =0       | -45 |     |      | V    |
| : BC328  |                       |   | -25 |     |      | V    |
| Collector Emitter Breakdown Voltage<br>: BC327 | BV <sub>CEs</sub>     | I <sub>c</sub> = -0.1mA, I <sub>B</sub> =0      | -50 |     |      | V    |
| : BC328  |                       |   | -30 |     |      | V    |
| Emitter Base Breakdown Voltage                 | BV <sub>EBo</sub>     | I <sub>E</sub> = -10mA, I <sub>C</sub> =0       | -5  |     |      | V    |
| Collector Cut-off Current<br>: BC307           | I <sub>cEs</sub>      | V <sub>CE</sub> = -45V, I <sub>B</sub> =0       |     | -2  | -100 | nA   |
| : BC338  |                       |   |     | -2  | -100 | nA   |
| DC Current Gain                                | h <sub>FE</sub>       | V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA  | 100 |     | 630  |      |
|  | h <sub>FE2</sub>      | V <sub>CE</sub> = -1V, I <sub>C</sub> = -30mA   | 60  |     |      |      |
| Collector-Emitter Saturation Voltage           | V <sub>CE</sub> (sat) | I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA |     |     | -0.7 | V    |
| Base Emitter On Voltage                        | V <sub>BE</sub> (on)  | V <sub>CE</sub> = -1V, I <sub>C</sub> = -300mA  |     |     | -1.2 | V    |
| Current Gain Bandwidth Product                 | f <sub>T</sub>        | V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA   |     | 100 |      | MHz  |
| Collector Base Capacitance                     | C <sub>CB0</sub>      | V <sub>CB</sub> = -10V, f=1MHz                  |     | 12  |      | pF   |

## h<sub>FE</sub> CLASSIFICATION

| Classification   | A       | B       | C       |
|------------------|---------|---------|---------|
| h <sub>FE</sub>  | 100-250 | 160-400 | 250-630 |
| h <sub>FE2</sub> | 60-     | 100-    | 170-    |





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| CROSSVOLT™           | POP™          |
| E <sup>2</sup> CMOS™ | PowerTrench™  |
| FACT™                | QS™           |
| FACT Quiet Series™   | Quiet Series™ |
| FAST®                | SuperSOT™-3   |
| FASTr™               | SuperSOT™-6   |
| GTO™                 | SuperSOT™-8   |
| HiSeC™               | TinyLogic™    |

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