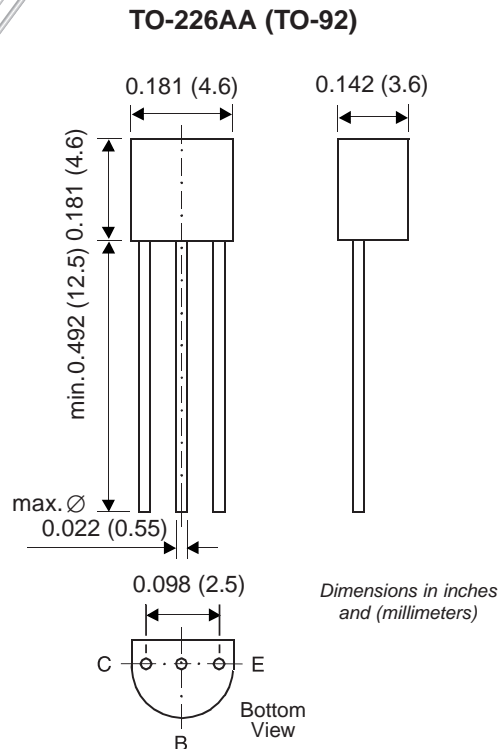
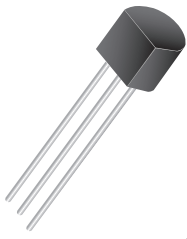


Small Signal Transistors (PNP)



Features

- PNP Silicon Epitaxial Planar Transistors for switching and amplifier applications. Especially suitable for AF-driver stages and low-power output stages.
- These types are also available subdivided into three groups, -16, -25, and -40, according to their DC current gain. As complementary types, the NPN transistors BC327 and BC338 are recommended.
- On special request, these transistors are also manufactured in the pin configuration TO-18.

Mechanical Data

Case: TO-92 Plastic Package

Weight: approx. 0.18g

Packaging Codes/Options:

E6/Bulk – 5K per container, 20K/box

E7/4K per Ammo mag., 20K/box

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | | Symbol | Value | Unit |
|---|-------|-----------------|--------------------|---------------------------|
| Collector-Emitter Voltage | BC327 | $-V_{CES}$ | 50 | V |
| | BC328 | | 30 | |
| Collector-Emitter Voltage | BC327 | $-V_{CEO}$ | 45 | V |
| | BC328 | | 25 | |
| Emitter-Base Voltage | | $-V_{EBO}$ | 5 | V |
| Collector Current | | $-I_C$ | 800 | mA |
| Peak Collector Current | | $-I_{CM}$ | 1 | A |
| Base Current | | $-I_B$ | 100 | mA |
| Power Dissipation at $T_{amb} = 25^\circ\text{C}$ | | P_{tot} | 625 ⁽¹⁾ | mW |
| Thermal Resistance Junction to Ambient Air | | $R_{\theta JA}$ | 200 ⁽¹⁾ | $^\circ\text{C}/\text{W}$ |
| Junction Temperature | | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | | T_S | -65 to +150 | $^\circ\text{C}$ |

Note: (1) Valid provided that leads are kept at ambient temperature at a distance of 2mm from case.

BC327 thru BC328

Vishay Semiconductors
formerly General Semiconductor



Electrical Characteristics (T_J = 25°C unless otherwise noted)

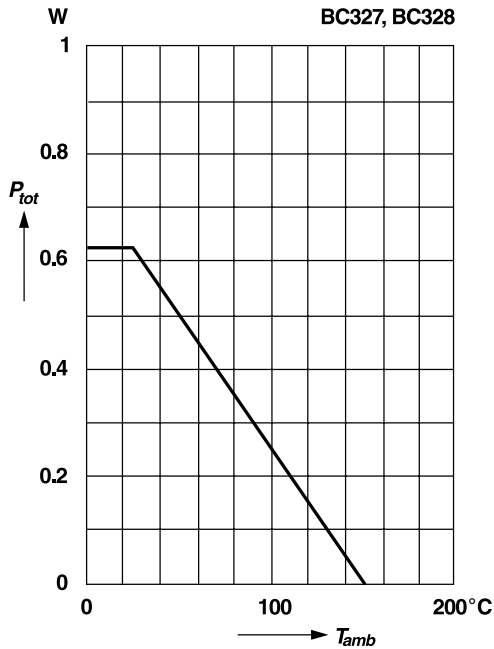
| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit | |
|-------------------------------------|-----------------------|---|--|-----|-----|------|----|
| DC Current Gain | h _{FE} | -V _{CE} = 1 V, -I _C = 100 mA | Current Gain Group -16 | 100 | 160 | 250 | — |
| | | | -25 | 160 | 250 | 400 | |
| | | | -40 | 250 | 400 | 630 | |
| | | Current Gain Group -16 | -V _{CE} = 1 V, -I _C = 300 mA | 60 | 130 | — | |
| | | | -25 | 100 | 200 | — | |
| | | | -40 | 170 | 320 | — | |
| Collector-Emitter Cutoff Current | -I _{CES} | -V _{CE} = 45 V | BC327 | — | 2 | 100 | nA |
| | | | BC328 | — | 2 | 100 | nA |
| | | -V _{CE} = 25 V, T _{amb} = 125°C | BC327 | — | — | 10 | μA |
| | | | BC328 | — | — | 10 | μA |
| Collector Saturation Voltage | -V _{CEsat} | -I _C = 500 mA, -I _B = 50 mA | — | — | 0.7 | V | |
| Base-Emitter Voltage | -V _{BE} | -V _{CE} = 1 V, -I _C = 300 mA | — | — | 1.2 | V | |
| Collector-Emitter Breakdown Voltage | -V _{(BR)CEO} | -I _C = 10 mA | BC327 | 45 | — | — | V |
| | | | BC328 | 25 | — | — | |
| Collector-Emitter Breakdown Voltage | -V _{(BR)CES} | -I _C = 0.1 mA | BC327 | 50 | — | — | V |
| | | | BC328 | 30 | — | — | |
| Emitter-Base Breakdown Voltage | -V _{(BR)EBO} | -I _E = 0.1 mA | 5 | — | — | V | |
| Gain-Bandwidth Product | f _T | -V _{CE} = 5 V, -I _C = 10 mA f = 50 MHz | — | 100 | — | MHz | |
| Collector-Base Capacitance | CC _{BO} | -V _{CB} = 10 V, f = 1 MHz | — | 12 | — | pF | |



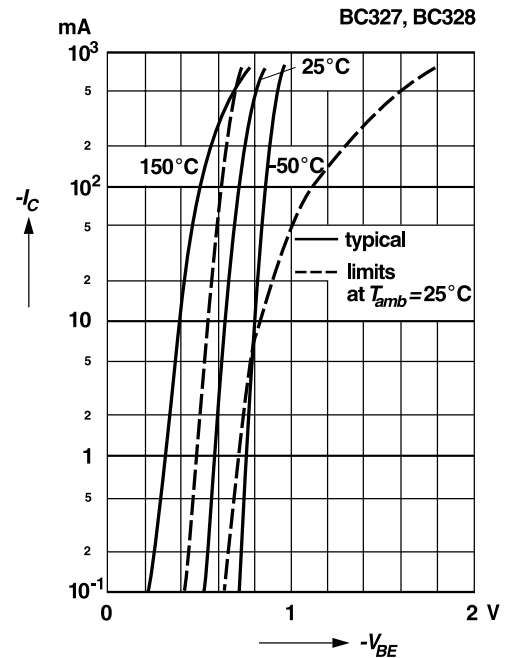
Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

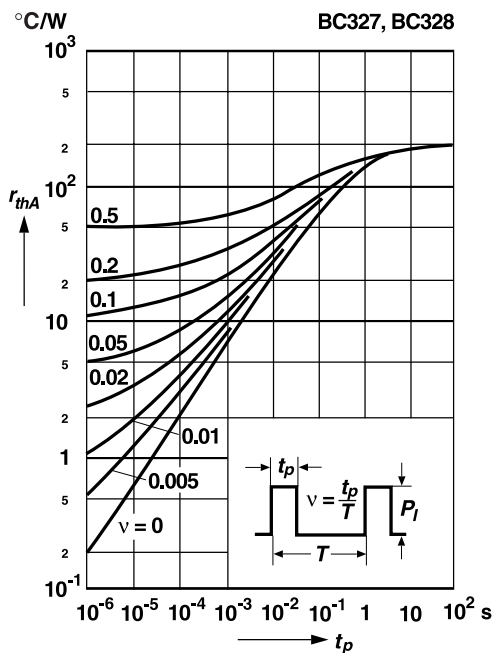


Collector current versus base-emitter voltage

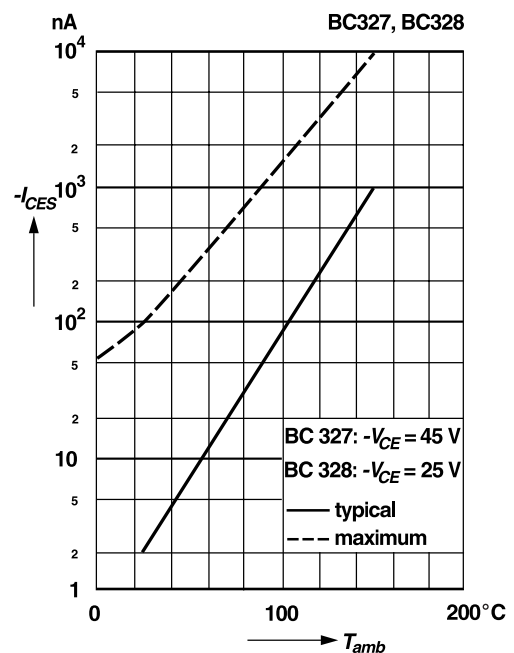


Pulse thermal resistance versus pulse duration

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



Collector-emitter cutoff current versus ambient temperature



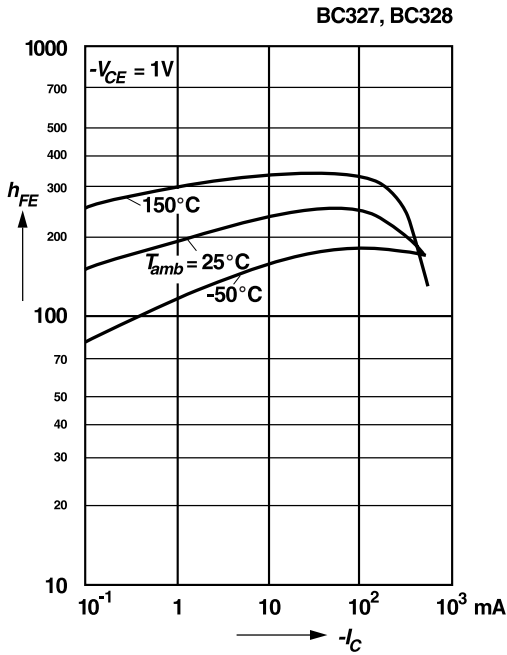
BC327 thru BC328

Vishay Semiconductors
formerly General Semiconductor

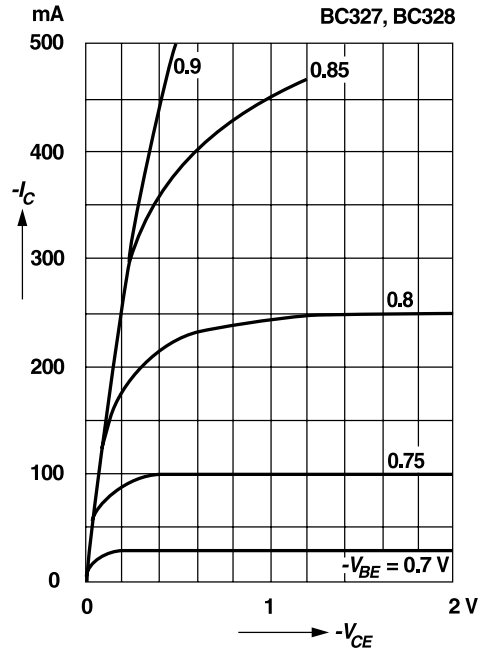


Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

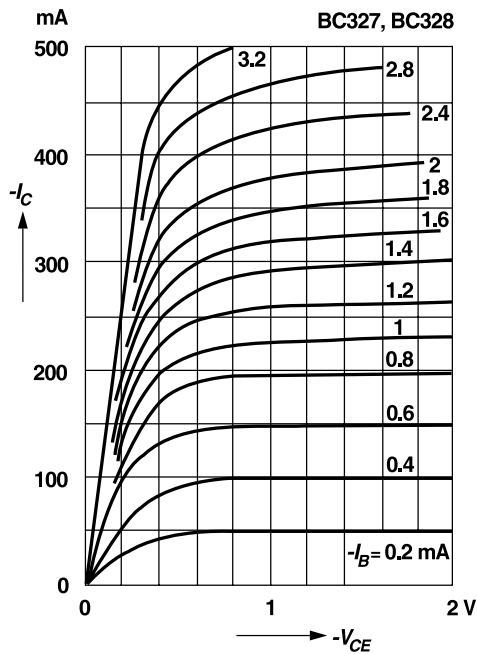
DC current gain versus collector current



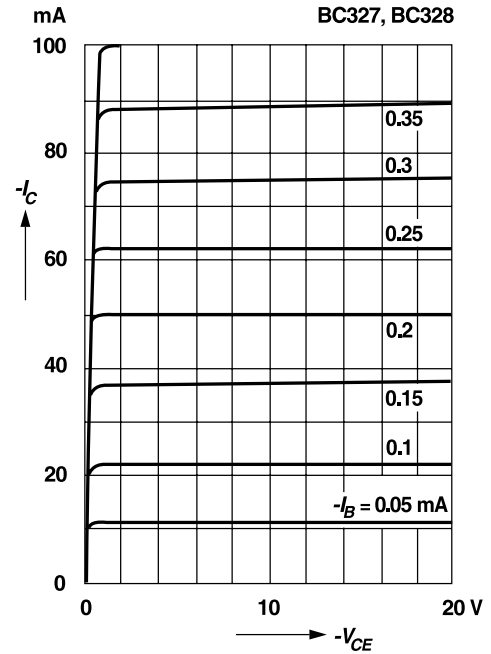
Common emitter collector characteristics



Common emitter collector characteristics



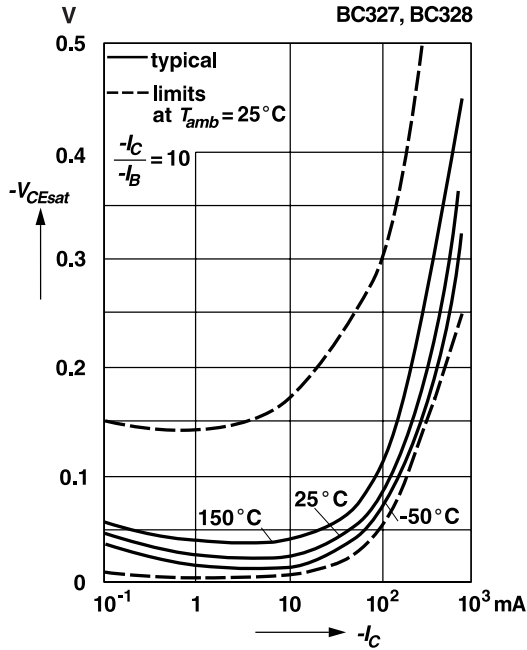
Common emitter collector characteristics



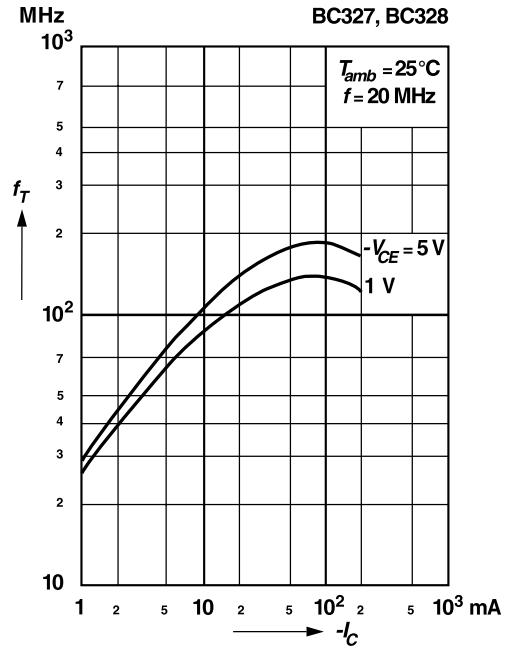


Ratings and
Characteristic Curves (T_A = 25°C unless otherwise noted)

Collector saturation voltage
versus collector current



Gain-bandwidth product
versus collector current



Base saturation voltage
versus collector current

