



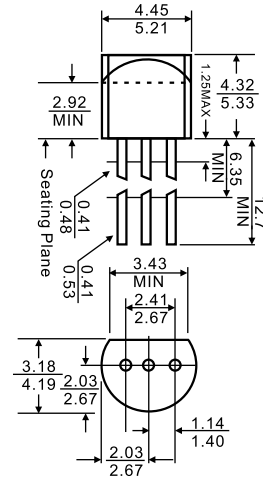
1. COLLECTOR
2. BASE
3. EMITTER

Features

- ◇ High Voltage
- ◇ Complement to BC546/BC547/BC548

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

| Symbol | Parameter | Value | Units |
|------------------|-------------------------------|---------|-------|
| V _{CBO} | Collector-Base Voltage BC556 | -80 | V |
| | BC557 | -50 | |
| | BC558 | -30 | |
| V _{CEO} | Collector-Emitter Voltage | -65 | V |
| | | -45 | |
| | | -30 | |
| V _{EBO} | Emitter-Base Voltage | -5 | V |
| I _C | Collector Current -Continuous | -100 | mA |
| P _C | Collector Power Dissipation | 625 | mW |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55-150 | °C |



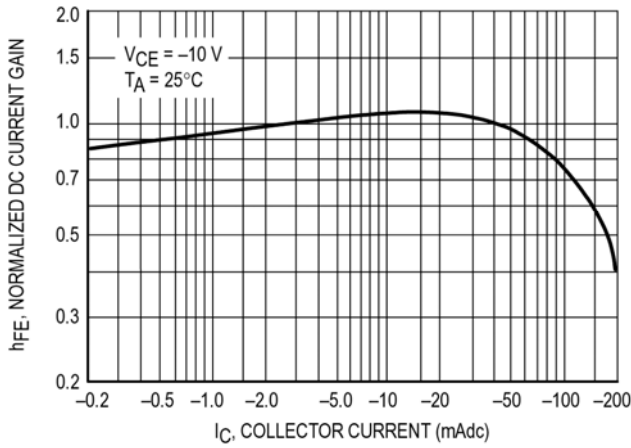
Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

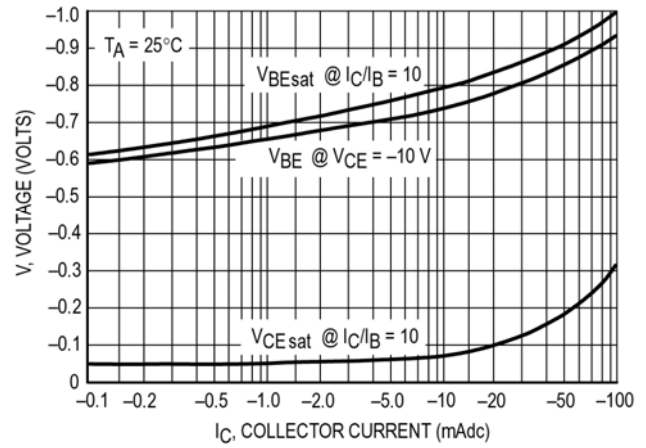
| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|--|--------------------------------|-----|-------|------|
| Collector-base breakdown voltage | V _{CBO} | I _C = -100μA, I _E =0 | BC556 | -80 | | V |
| | | | BC557 | -50 | | |
| | | | BC558 | -30 | | |
| Collector-emitter breakdown voltage | V _{CEO} | I _C = -2mA, I _B =0 | BC556 | -65 | | V |
| | | | BC557 | -45 | | |
| | | | BC558 | -30 | | |
| Emitter-base breakdown voltage | V _{EBO} | I _E = -100μA, I _C =0 | -5 | | V | |
| Collector cut-off current | I _{CBO} | V _{CB} = -70 V, I _E =0 V _{CB} = -45 V, I _E =0 V _{CB} = -25V, I _E =0 | | | -0.1 | μA |
| | | | BC556 | | | |
| | | | BC557 | | | |
| Collector cut-off current | I _{CEO} | V _{CE} = -60 V, I _B =0 V _{CE} = -40 V, I _B =0 V _{CE} = -25 V, I _B =0 | | | -0.1 | μA |
| | | | BC556 | | | |
| | | | BC557 | | | |
| Emitter cut-off current | I _{EBO} | V _{EB} = -5 V, I _C =0 | | | -0.1 | μA |
| | | | BC556 | | | |
| | | | BC557 | | | |
| DC current gain | h _{FE} | V _{CE} =-5V, I _C = -2mA | BC556 | 120 | 800 | |
| | | | BC557 | 120 | 800 | |
| | | | BC558 | 120 | 800 | |
| | | | BC557A | 120 | 220 | |
| | | | BC556B/BC557B/BC558B BC557C | 180 | 460 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =-100mA, I _B = -5mA | | | -0.65 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = -100mA, I _B =-5mA | | | -1 | V |
| Transition frequency | f _T | V _{CE} = -5V, I _C = -10mA f = 100MHz | 150 | | | MHz |

Typical Characteristics

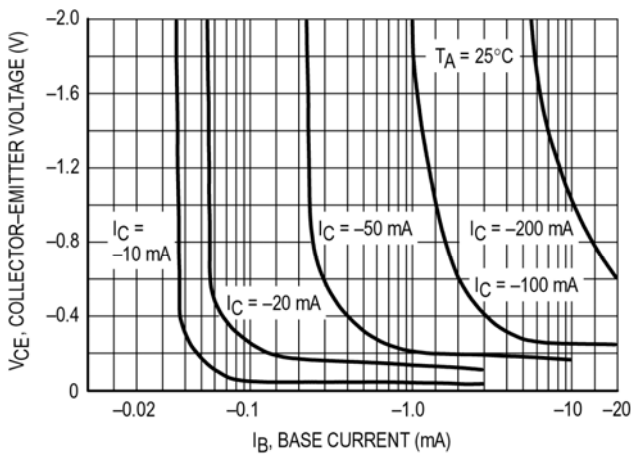
BC557/BC558



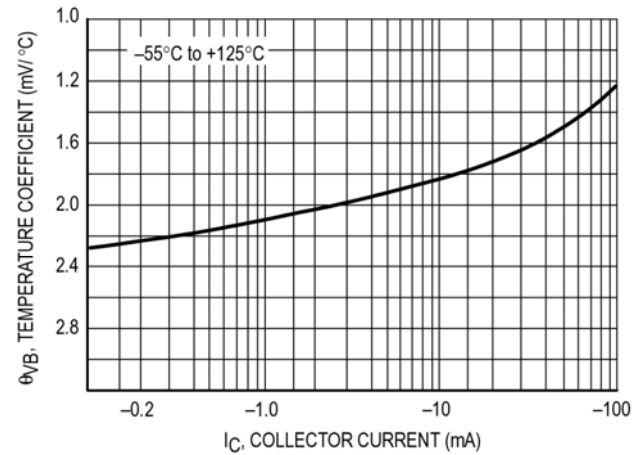
Normalized DC Current Gain



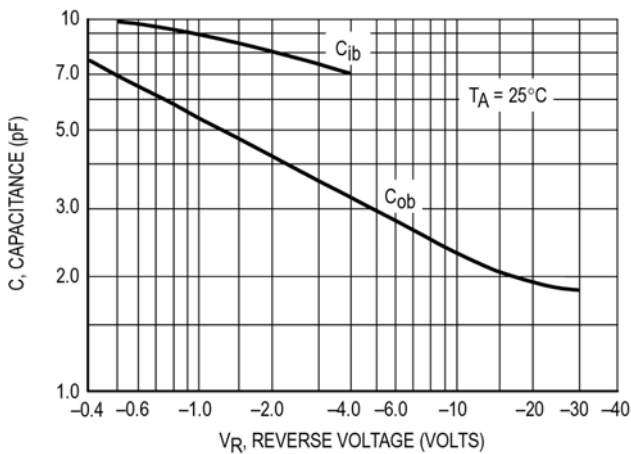
"Saturation" and "On" Voltages



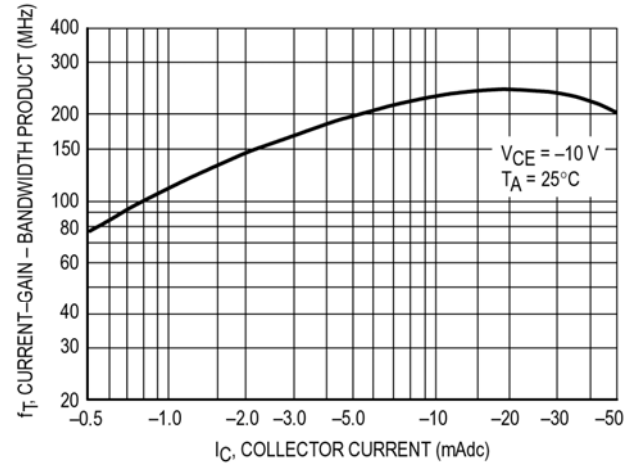
Collector Saturation Region



Base-Emitter Temperature Coefficient

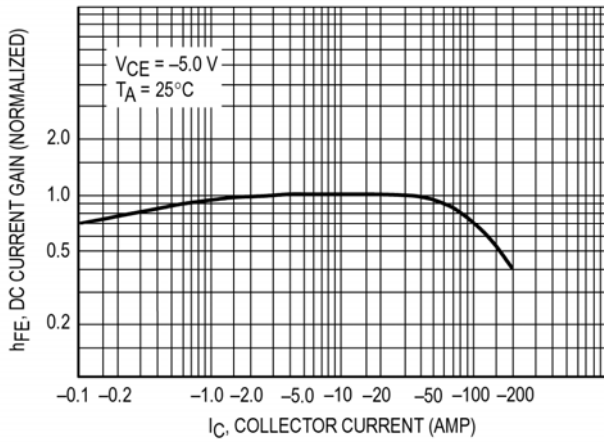


Capacitances

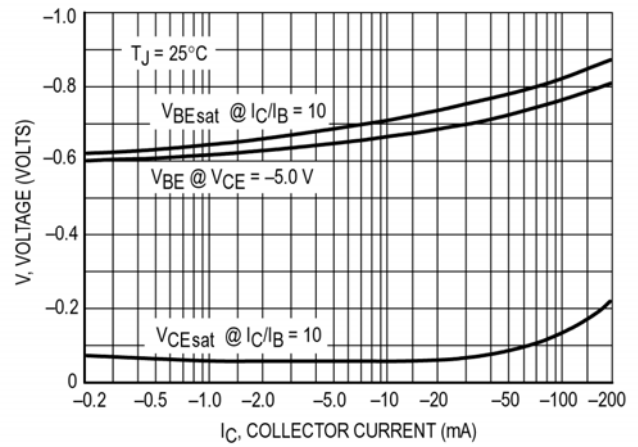


Current-Gain - Bandwidth Product

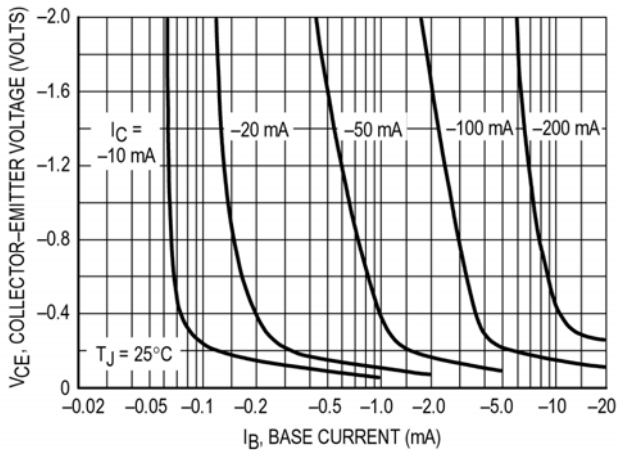
BC556



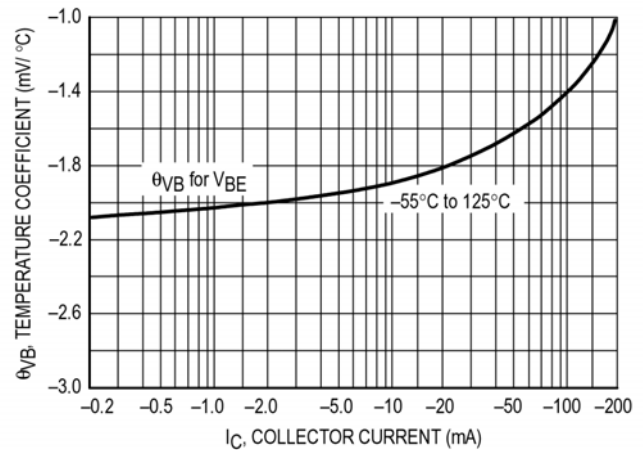
DC Current Gain



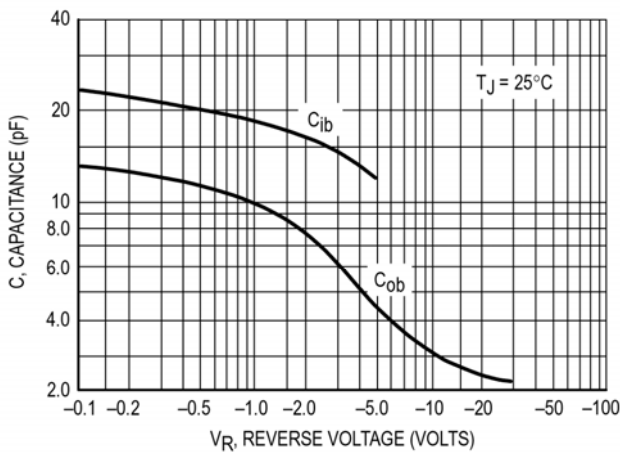
"On" Voltage



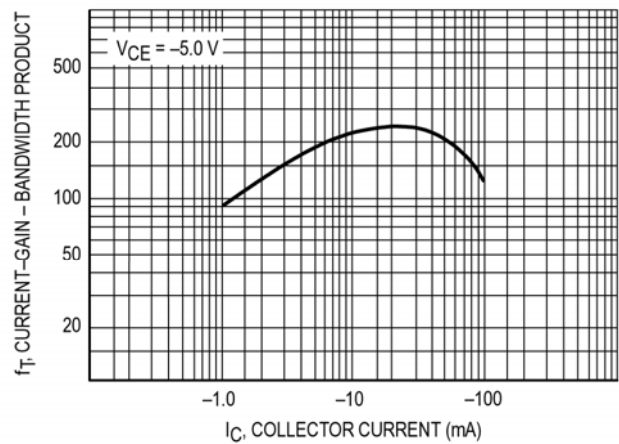
Collector Saturation Region



Base-Emitter Temperature Coefficient

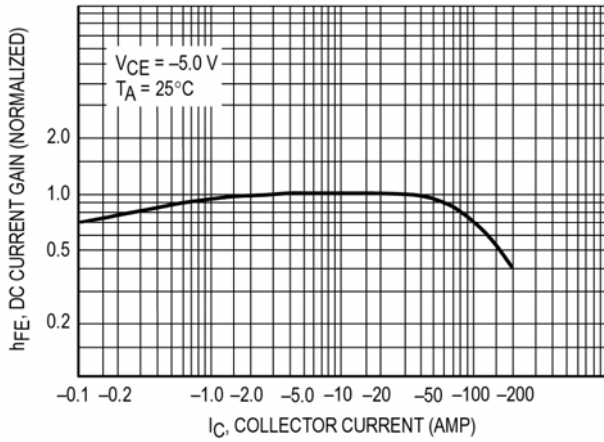


Capacitance

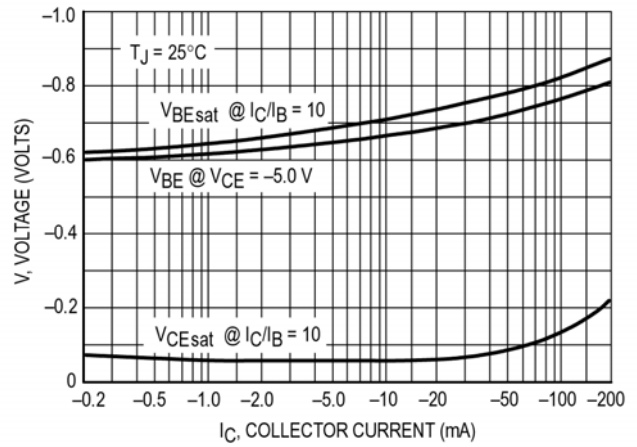


Current-Gain - Bandwidth Product

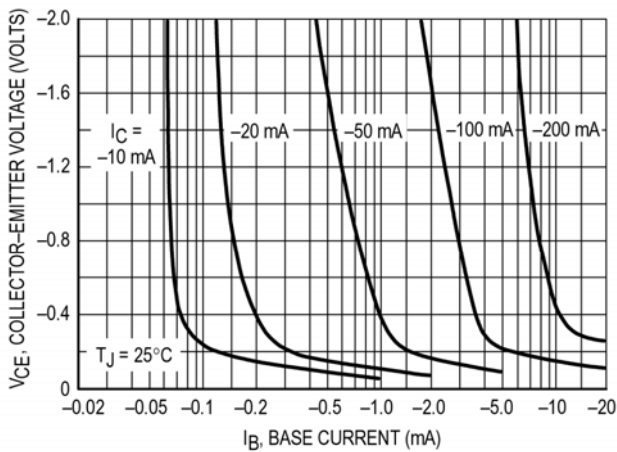
BC556



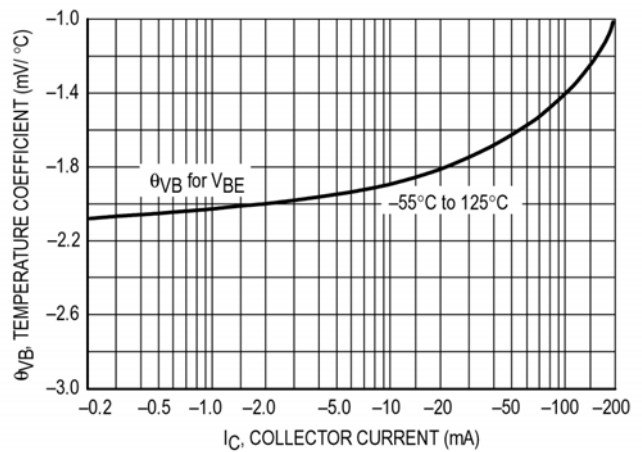
DC Current Gain



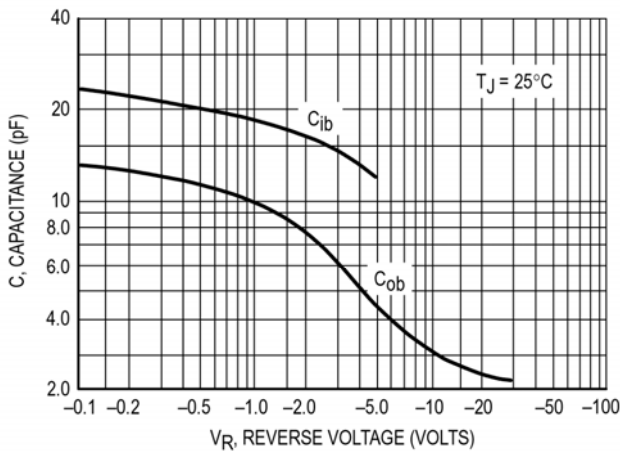
"On" Voltage



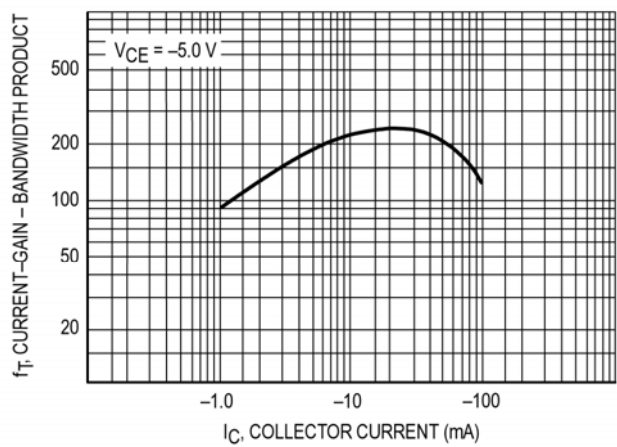
Collector Saturation Region



Base-Emitter Temperature Coefficient



Capacitance



Current-Gain - Bandwidth Product