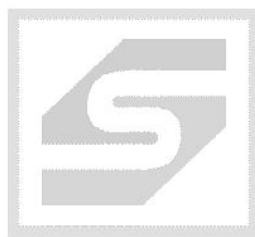
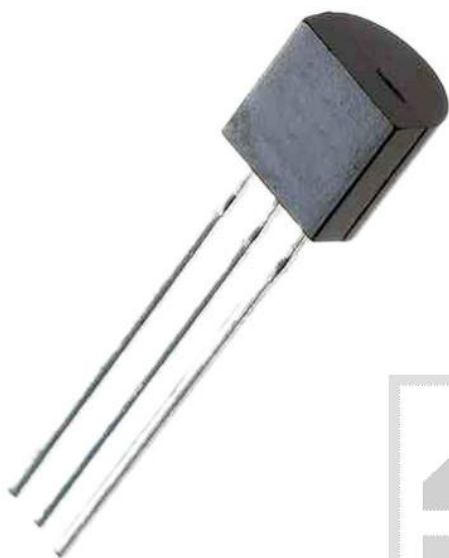




ROBERT STĘPIEŃ  
HURTOWNIA CZĘŚCI ELEKTRONICZNYCH  
podzespoly-elektroniczne.pl

# TR BC546B;TO92;CDIL;tranzystor; NPN;uni.;80V;0.1A;0.5W;300MHz;RoHS



## Dane techniczne:

Nazwa: BC546B

Typ tranzystora: bipolarny

Kierunek przewodnictwa: NPN

Prąd kolektora: 0.1A

Napięcie kolektor-emiter: 80V

Moc: 0.5W

Częstotliwość: 300MHz

Obudowa: TO92

Montaż: przewlekany (THT)

Producent: CDIL

[www.podzespoly-elektroniczne.pl](http://www.podzespoly-elektroniczne.pl)

Robert Stępień Hurtownia Części Elektronicznych; Adres: ul. Wolumen 2, pawilon 71; 01-912 Warszawa; tel.: 601 296 402 /  
sklep@podzespoly-elektroniczne.pl



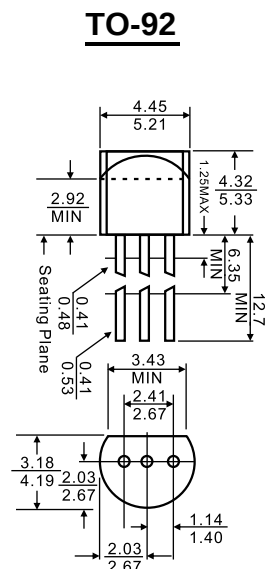
1. COLLECTOR
2. BASE
3. EMITTER

### Features

- ✧ High Voltage
- ✧ Complement to BC556,BC557,BC558

### MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol    | Parameter                       | Value   | Units              |
|-----------|---------------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-Base Voltage BC546    | 80      | V                  |
|           | BC547                           | 50      |                    |
|           | BC548                           | 30      |                    |
| $V_{CEO}$ | Collector-Emitter Voltage BC546 | 65      | V                  |
|           | BC547                           | 45      |                    |
|           | BC548                           | 30      |                    |
| $V_{EBO}$ | Emitter-Base Voltage            | 6       | V                  |
| $I_C$     | Collector Current -Continuous   | 100     | mA                 |
| $P_D$     | Total Device Dissipation        | 625     | mW                 |
| $T_J$     | Junction Temperature            | 150     | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature             | -55-150 | $^{\circ}\text{C}$ |

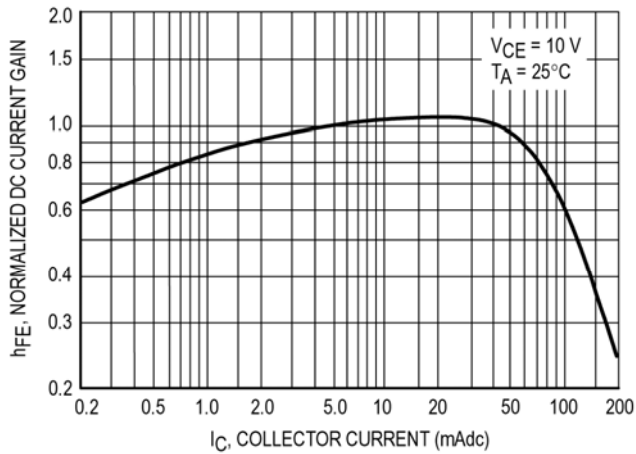


Dimensions in inches and (millimeters)

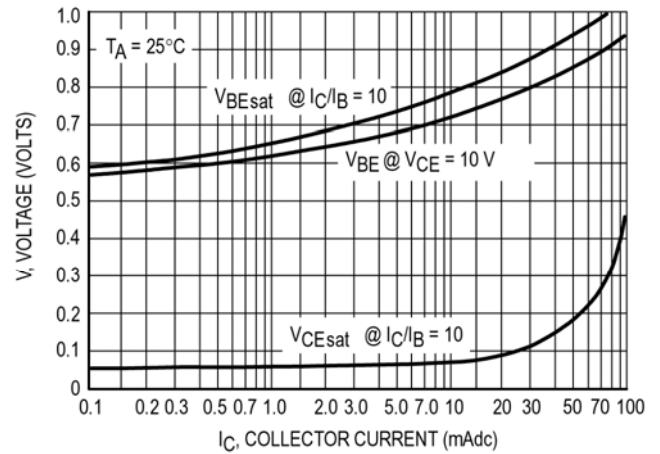
### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter                                                                                                          | Symbol        | Test conditions                                                                                             | MIN                                    | MAX                                    | UNIT          |
|--------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|---------------|
| Collector-base breakdown voltage<br>BC546<br>BC547<br>BC548                                                        | $V_{CBO}$     | $I_C = 100\mu\text{A}$ , $I_E = 0$                                                                          | 80<br>50<br>30                         |                                        | V             |
| Collector-emitter breakdown voltage<br>BC546<br>BC547<br>BC548                                                     | $V_{CEO}$     | $I_C = 1\text{mA}$ , $I_B = 0$                                                                              | 65<br>45<br>30                         |                                        | V             |
| Emitter-base breakdown voltage                                                                                     | $V_{EBO}$     | $I_E = 10\mu\text{A}$ , $I_C = 0$                                                                           | 6                                      |                                        | V             |
| Collector cut-off current<br>BC546<br>BC547<br>BC548                                                               | $I_{CBO}$     | $V_{CB} = 70\text{V}$ , $I_E = 0$<br>$V_{CB} = 50\text{V}$ , $I_E = 0$<br>$V_{CB} = 30\text{V}$ , $I_E = 0$ |                                        | 0.1                                    | $\mu\text{A}$ |
| Collector cut-off current<br>BC546<br>BC547<br>BC548                                                               | $I_{CEO}$     | $V_{CE} = 60\text{V}$ , $I_B = 0$<br>$V_{CE} = 45\text{V}$ , $I_B = 0$<br>$V_{CE} = 30\text{V}$ , $I_B = 0$ |                                        | 0.1                                    | $\mu\text{A}$ |
| Emitter cut-off current<br>BC546<br>BC547<br>BC548                                                                 | $I_{EBO}$     | $V_{EB} = 5\text{V}$ , $I_C = 0$                                                                            |                                        | 0.1                                    | $\mu\text{A}$ |
| DC current gain<br>BC546<br>BC547<br>BC548<br>BC546A/BC547A/BC548A<br>BC546B/BC547B/BC548B<br>BC546C/BC547C/BC548C | $h_{FE}$      | $V_{CE} = 5\text{V}$ , $I_C = 2\text{mA}$                                                                   | 110<br>110<br>110<br>110<br>200<br>420 | 800<br>800<br>800<br>220<br>450<br>800 |               |
| Collector-emitter saturation voltage                                                                               | $V_{CE(sat)}$ | $I_C = 100\text{mA}$ , $I_B = 5\text{mA}$                                                                   |                                        | 0.3                                    | V             |
| Base-emitter saturation voltage                                                                                    | $V_{BE(sat)}$ | $I_C = 100\text{mA}$ , $I_B = 5\text{mA}$                                                                   |                                        | 1.1                                    | V             |
| Transition frequency                                                                                               | $f_T$         | $V_{CE} = 5\text{V}$ , $I_C = 10\text{mA}$<br>$f = 100\text{MHz}$                                           | 150                                    |                                        | MHz           |

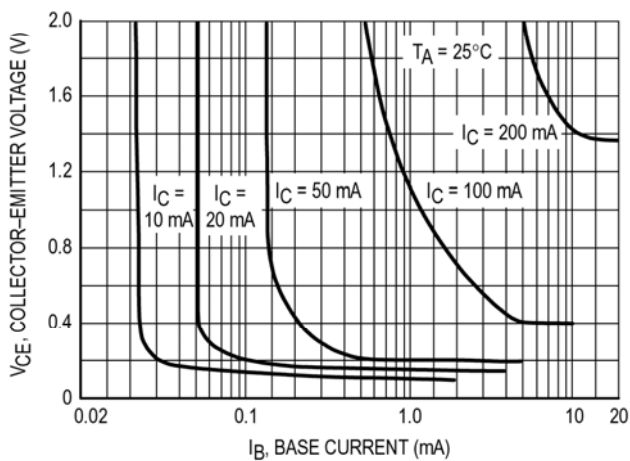
## Typical Characteristics



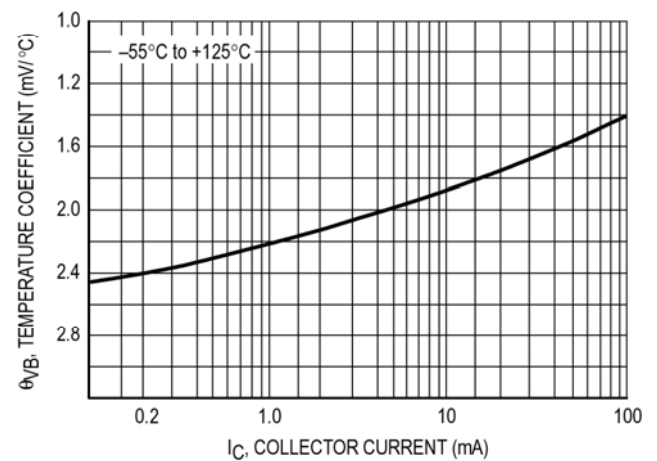
Normalized DC Current Gain



"Saturation" and "On" Voltages

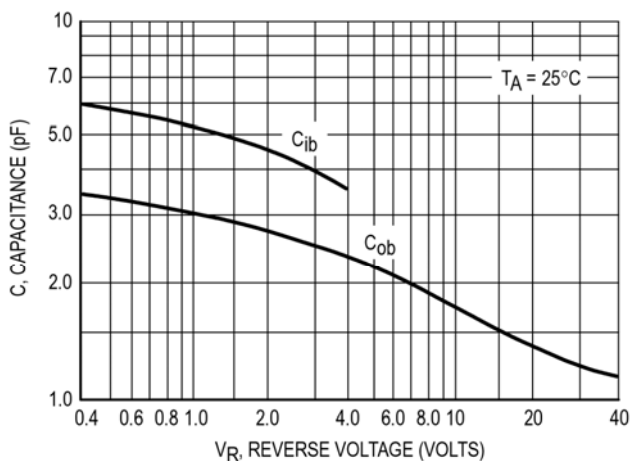


Collector Saturation Region

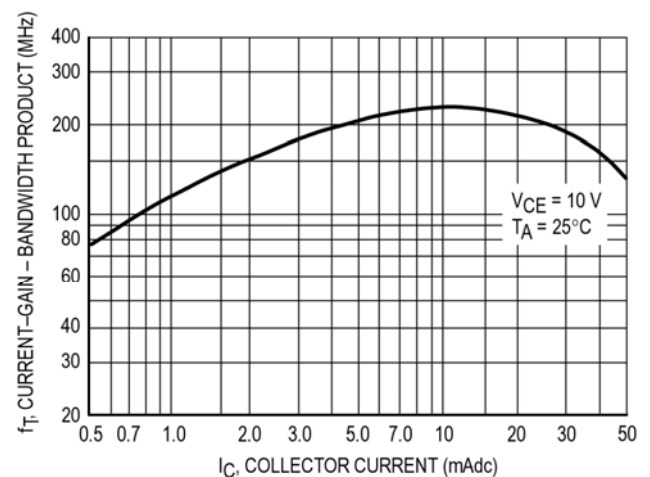


Base-Emitter Temperature Coefficient

### BC547/BC548



Capacitances



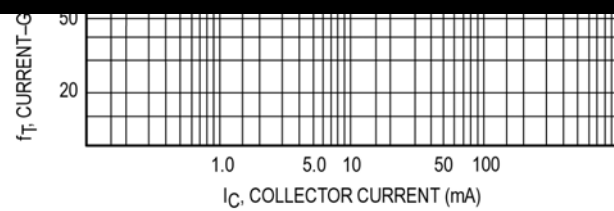
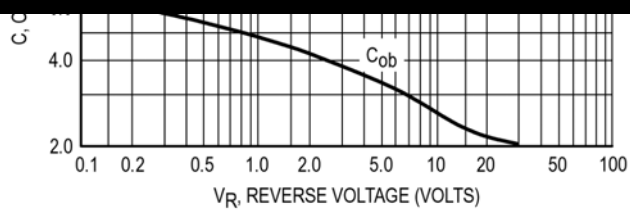
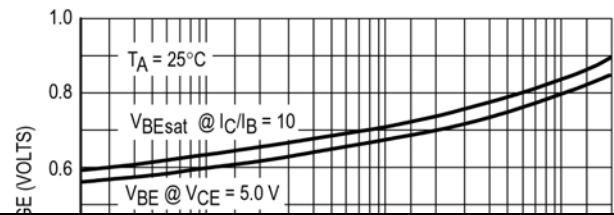
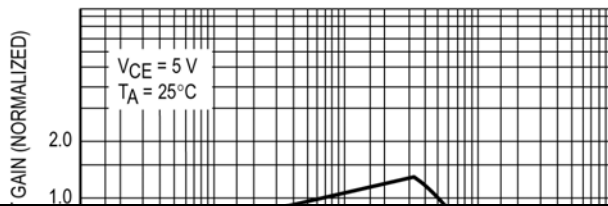
Current-Gain Bandwidth Product



# BC546/BC547/BC548(NPN)

TO-92 Bipolar Transistors

## BC547/BC548



Capacitance

Current-Gain – Bandwidth Product