



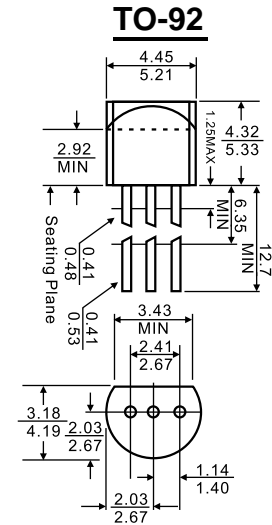
1. COLLECTOR
2. BASE
3. EMITTER

### Features

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

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	BC546 80	V
		BC547 50	
		BC548 30	
V <sub>CEO</sub>	Collector-Emitter Voltage	BC546 65	V
		BC547 45	
		BC548 30	
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current -Continuous	100	mA
P <sub>D</sub>	Total Device Dissipation	625	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



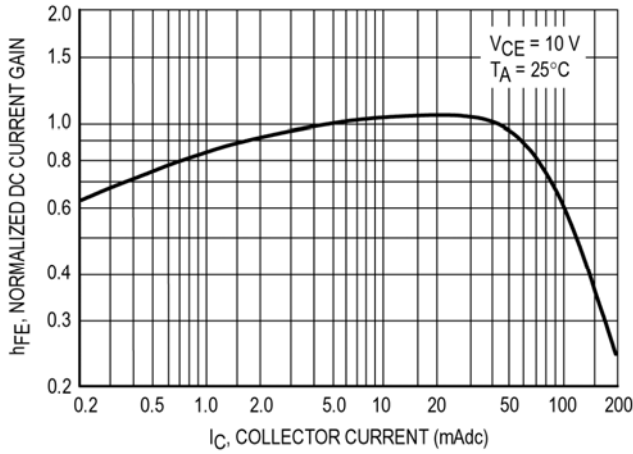
Dimensions in inches and (millimeters)

### ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

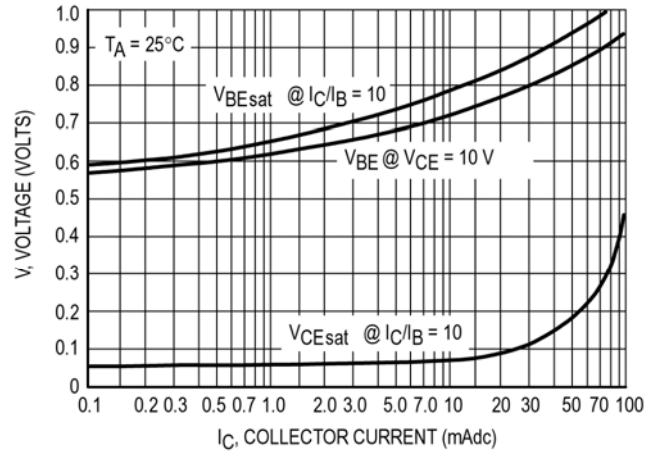
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BC546 BC547 BC548	V <sub>CBO</sub>	I <sub>C</sub> = 100μA , I <sub>E</sub> =0	80 50 30	V
Collector-emitter breakdown voltage	BC546 BC547 BC548	V <sub>CEO</sub>	I <sub>C</sub> = 1mA , I <sub>B</sub> =0	65 45 30	V
Emitter-base breakdown voltage		V <sub>EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> =0	6	V
Collector cut-off current	BC546 BC547 BC548	I <sub>CBO</sub>	V <sub>CB</sub> = 70V, I <sub>E</sub> =0 V <sub>CB</sub> = 50 V, I <sub>E</sub> =0 V <sub>CB</sub> = 30V, I <sub>E</sub> =0	0.1	μA
Collector cut-off current	BC546 BC547 BC548	I <sub>CEO</sub>	V <sub>CE</sub> = 60 V, I <sub>B</sub> =0 V <sub>CE</sub> = 45 V, I <sub>B</sub> =0 V <sub>CE</sub> = 30 V, I <sub>B</sub> =0	0.1	μA
Emitter cut-off current	BC546 BC547 BC548	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0	0.1	μA
DC current gain	BC546 BC547 BC548 BC546A/BC547A/BC548A BC546B/BC547B/BC548B BC546C/BC547C/BC548C	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> = 2mA	110 110 110 110 200 420	800 800 800 220 450 800
Collector-emitter saturation voltage		V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> = 5mA	0.3	V
Base-emitter saturation voltage		V <sub>BE(sat)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> =5mA	1.1	V
Transition frequency		f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA f = 100MHz	150	MHz



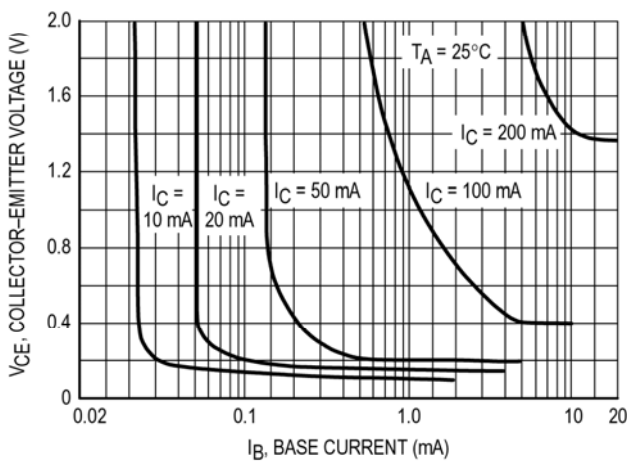
## Typical Characteristics



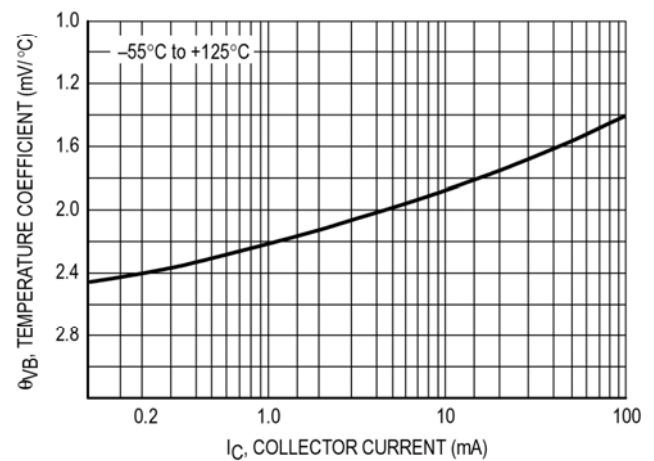
**Normalized DC Current Gain**



**"Saturation" and "On" Voltages**

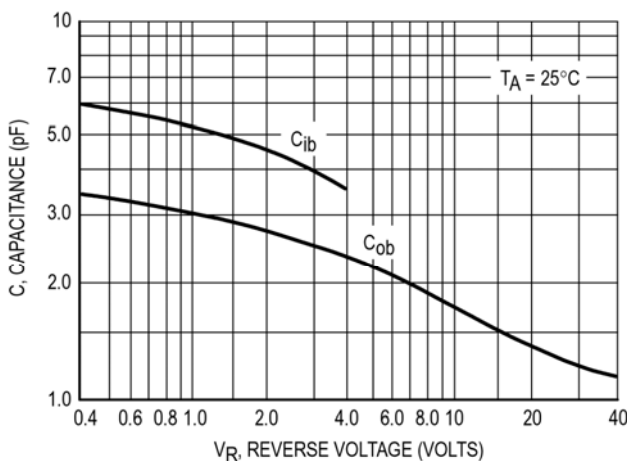


**Collector Saturation Region**

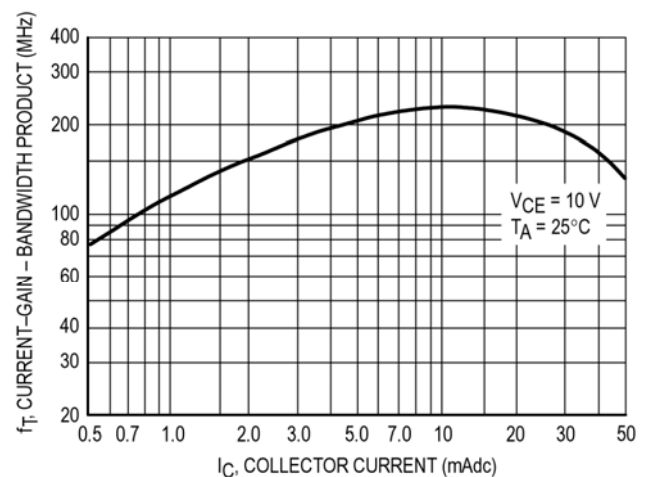


**Base-Emitter Temperature Coefficient**

### BC547/BC548



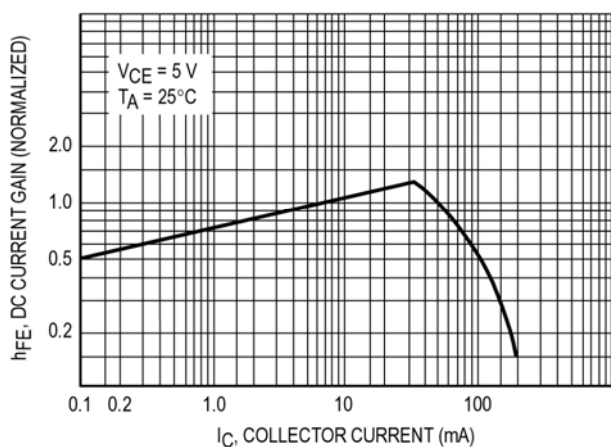
**Capacitances**



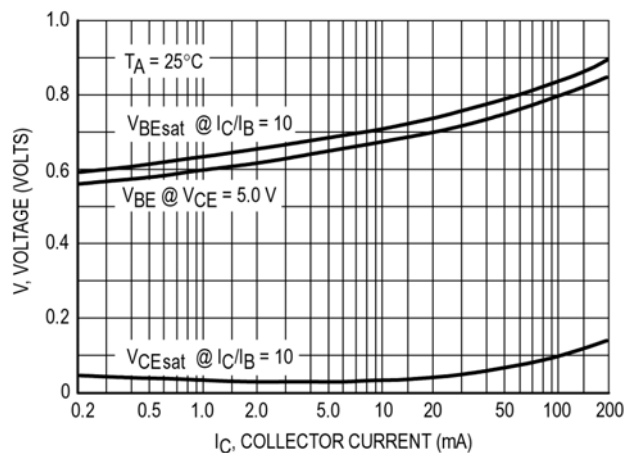
**Current-Gain - Bandwidth Product**



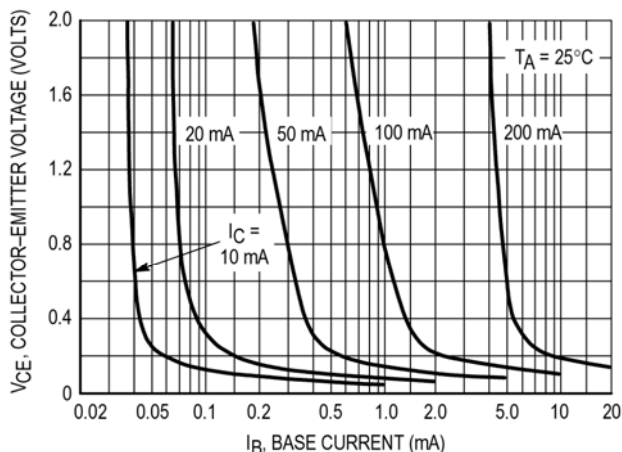
### BC547/BC548



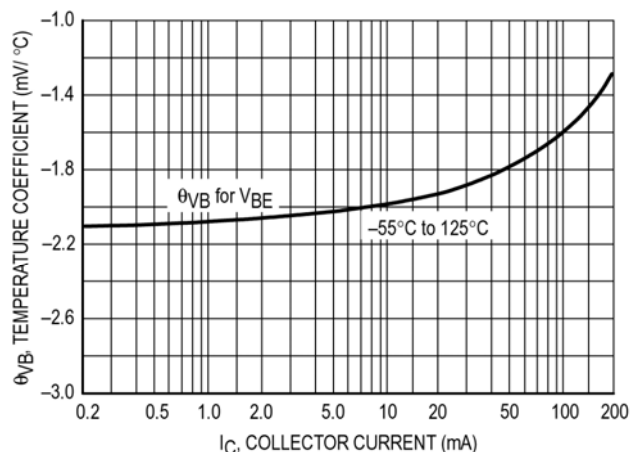
DC Current Gain



"On" Voltage

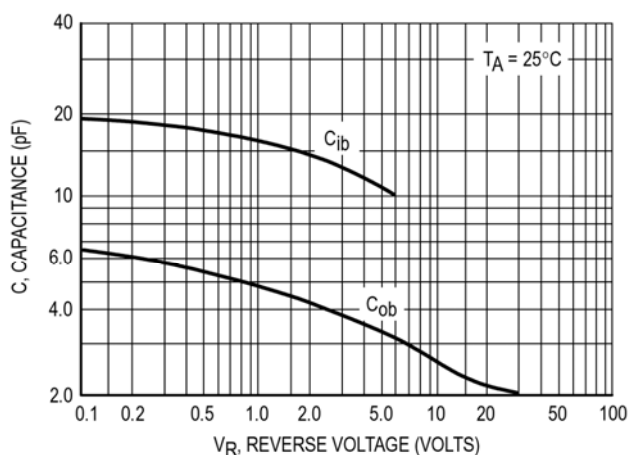


Collector Saturation Region

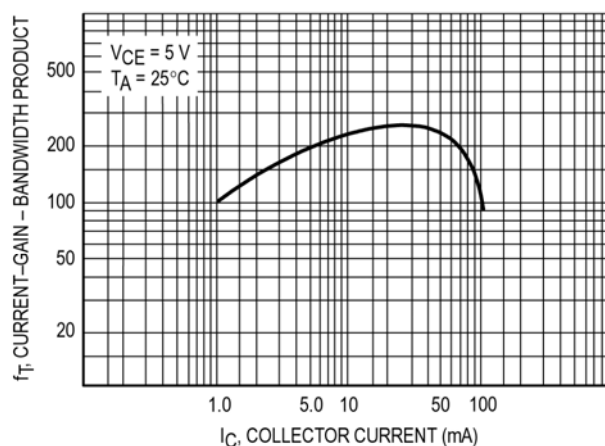


Base-Emitter Temperature Coefficient

### BC546



Capacitance



Current-Gain - Bandwidth Product

Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	Bulk	1000pcs/BP	10,000pcs	245×170×100	100,000pcs	525×375×270
TO-92	Tape	2000pcs/TP	2000pcs	333×162×43	20,000pcs	350×340×250