

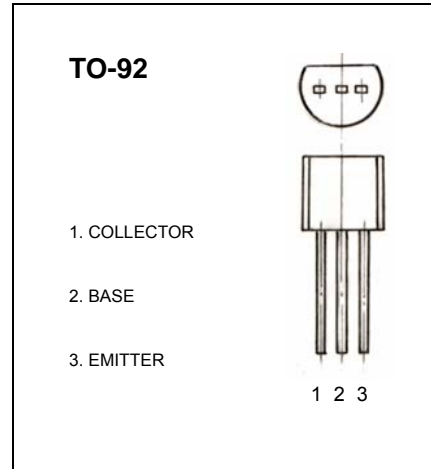
## BC546/BC547/BC548 TRANSISTOR (NPN)

### FEATURES

- High Voltage
- Complement to BC556,BC557,BC558

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

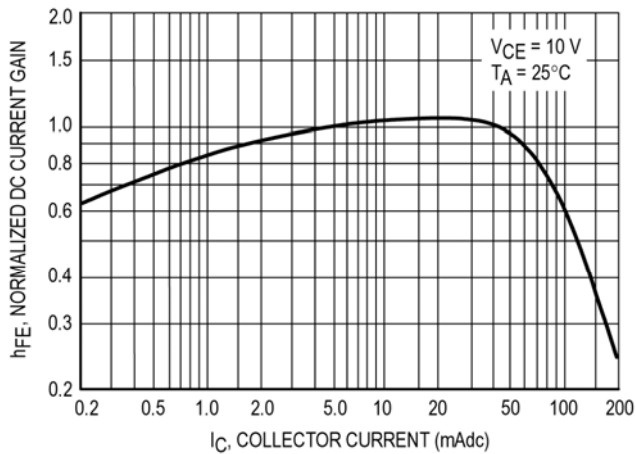
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	BC546 80 BC547 50 BC548 30	V
	Collector-Emitter Voltage	BC546 65 BC547 45 BC548 30	V
	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	100	mA
$P_D$	Total Device Dissipation	625	mW
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$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



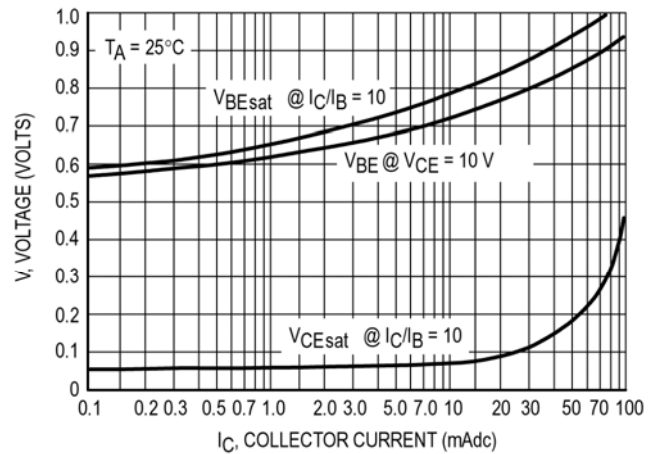
### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BC546 BC547 BC548	$V_{CBO}$	80 50 30		V
Collector-emitter breakdown voltage	BC546 BC547 BC548	$V_{CEO}$	65 45 30		V
Emitter-base breakdown voltage		$V_{EBO}$	6		V
Collector cut-off current	BC546 BC547 BC548	$I_{CBO}$		0.1	$\mu\text{A}$
Collector cut-off current	BC546 BC547 BC548	$I_{CEO}$		0.1	$\mu\text{A}$
Emitter cut-off current	BC546 BC547 BC548	$I_{EBO}$		0.1	$\mu\text{A}$
DC current gain	BC546 BC547 BC548 BC546A/BC547A/BC548A BC546B/BC547B/BC548B BC546C/BC547C/BC548C	$h_{FE}$	110 110 110 110 200 420	800 800 800 220 450 800	
Collector-emitter saturation voltage		$V_{CE(sat)}$		0.3	V
Base-emitter saturation voltage		$V_{BE(sat)}$		1.1	V
Transition frequency		$f_T$	150		MHz

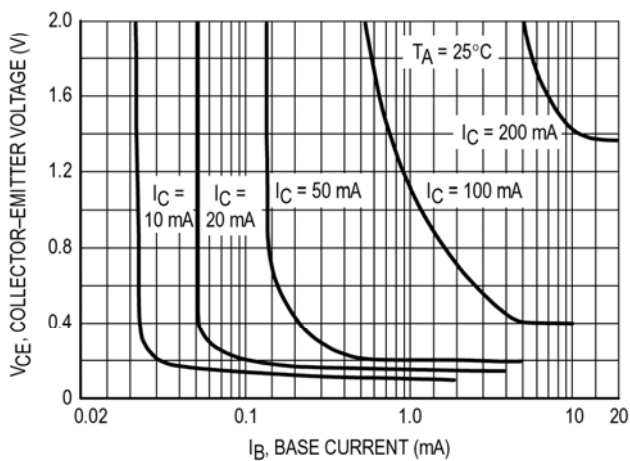
# Typical Characteristics



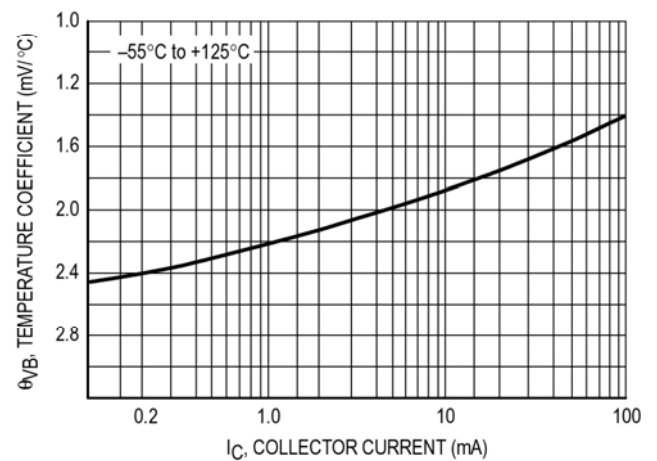
**Normalized DC Current Gain**



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

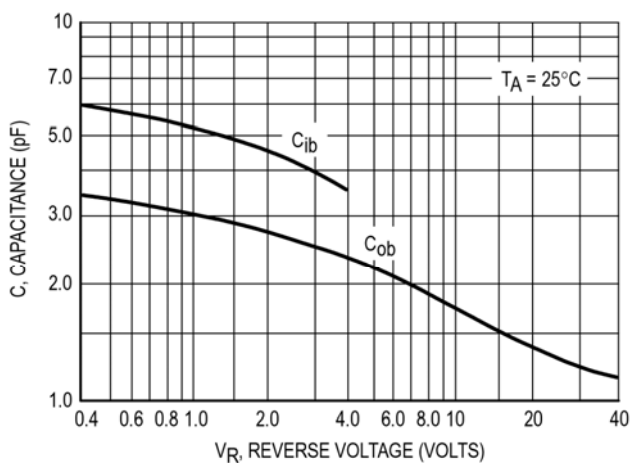


**Collector Saturation Region**

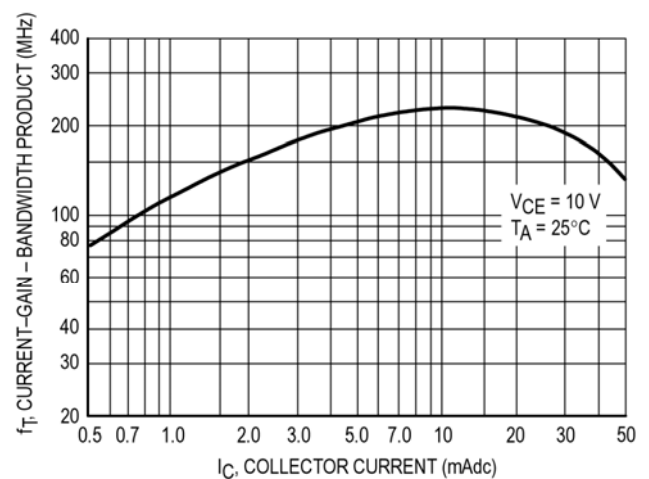


**Base-Emitter Temperature Coefficient**

## BC547/BC548

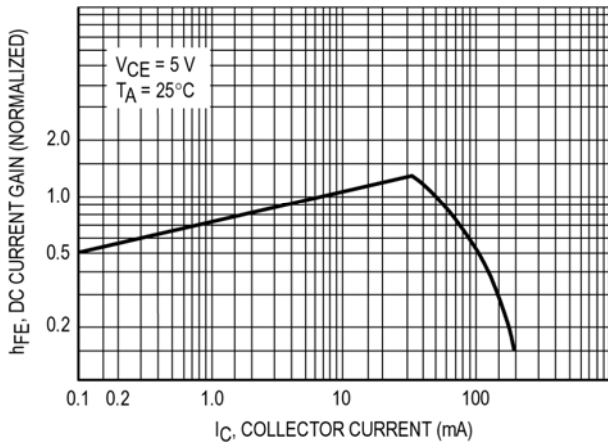


**Capacitances**

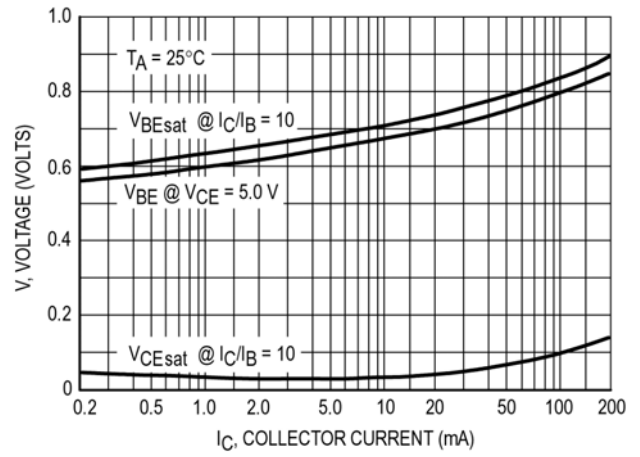


**Current-Gain - Bandwidth Product**

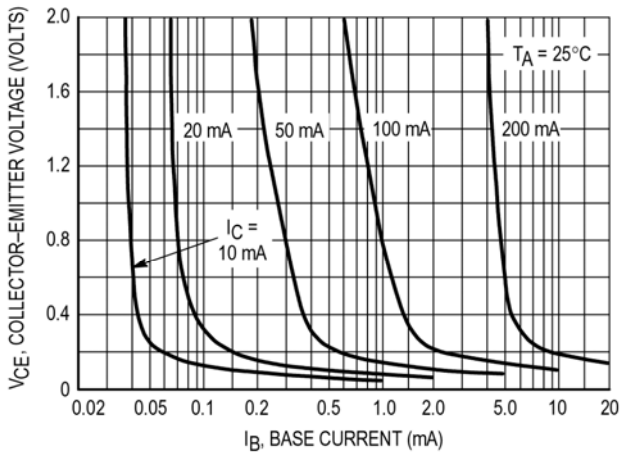
**BC547/BC548**



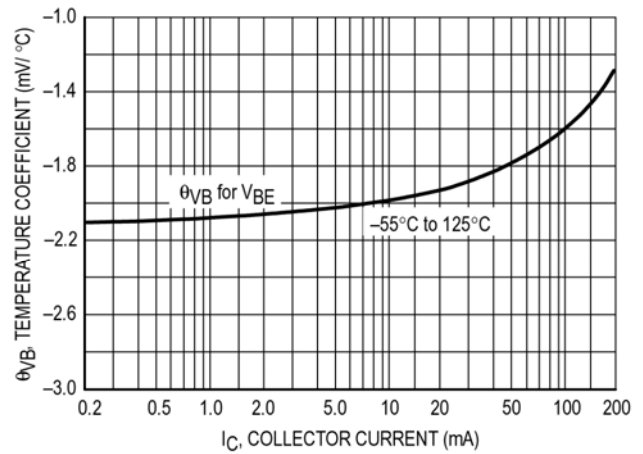
**DC Current Gain**



**"On" Voltage**

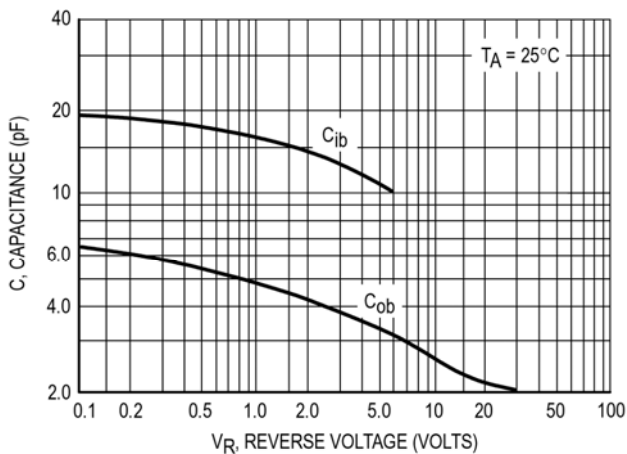


**Collector Saturation Region**

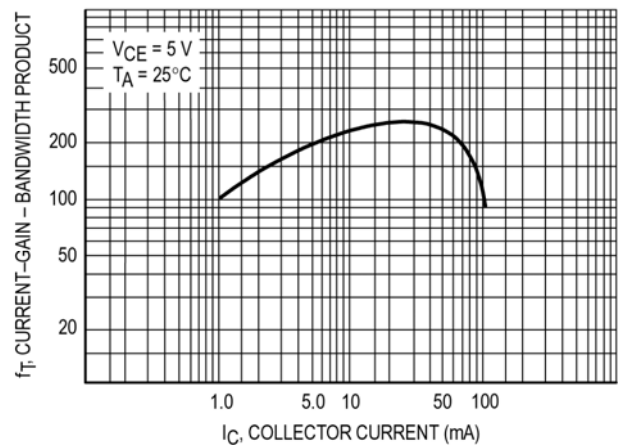


**Base-Emitter Temperature Coefficient**

**BC546**



**Capacitance**



**Current-Gain - Bandwidth Product**