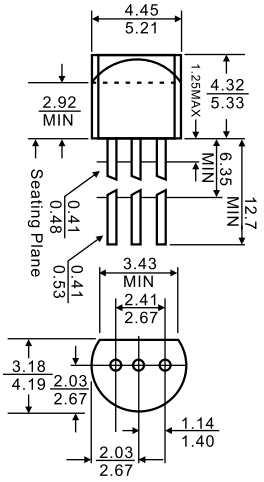
BC556/557/558(PNP)

TO-92 Bipolar Transistors

1. COLLECTOR
2. BASE
3. EMITTER

TO-92



Dimensions in inches and (millimeters)

Features

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

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

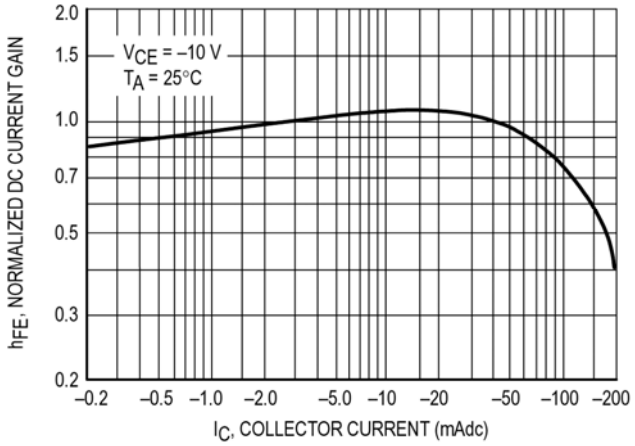
Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage	BC556 BC557 BC558	-80 -50 -30	V
V_{CEO}	Collector-Emitter Voltage		-65 -45 -30	V
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current -Continuous		-100	mA
P_C	Collector Power Dissipation		625	mW
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

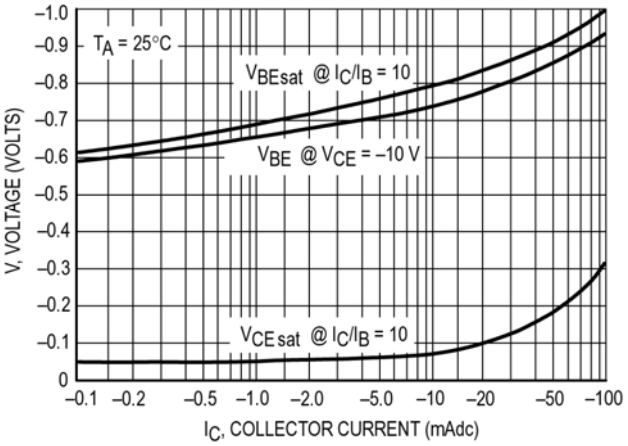
Parameter		Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	**BC556** **BC557** **BC558**	V_{CBO}	I_C= -100μA, I_E=0	-80 -50 -30			V
Collector-emitter breakdown voltage	**BC556** **BC557** **BC558**	V_{CEO}	I_C= -2mA , I_B=0	-65 -45 -30			V
Emitter-base breakdown voltage		V_{EBO}	I_E= -100μA, I_C=0	-5			V
Collector cut-off current	**BC556** **BC557** **BC558**	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
Collector cut-off current	**BC556** **BC557** **BC558**	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
Emitter cut-off current	**BC556** **BC557** **BC558**	I_{EBO}	V_{EB}= -5 V, I_C=0			-0.1	μA
DC current gain	**BC556** **BC557** **BC558** **BC557A** **BC556B/BC557B/BC558B** **BC557C**	h_{FE}	V_{CE}=-5V, I_C= -2mA	120 120 120 120 180 420		800 800 800 220 460 800	
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

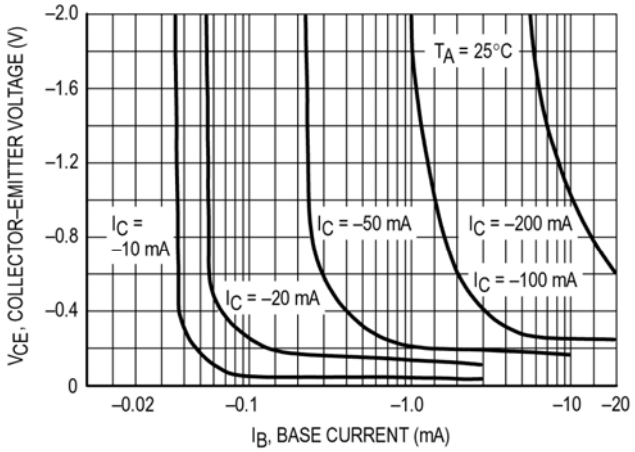
BC557/BC558



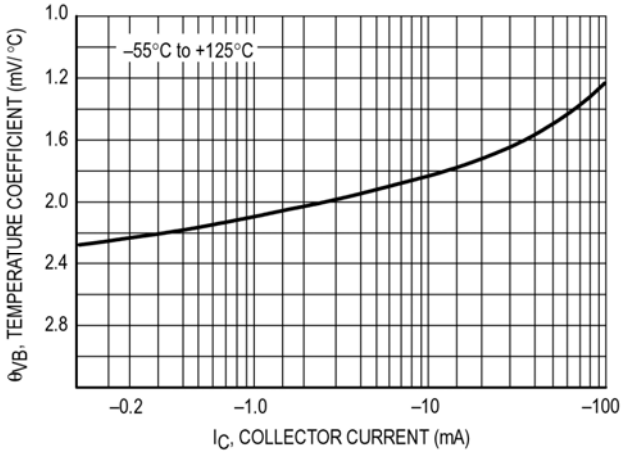
Normalized DC Current Gain



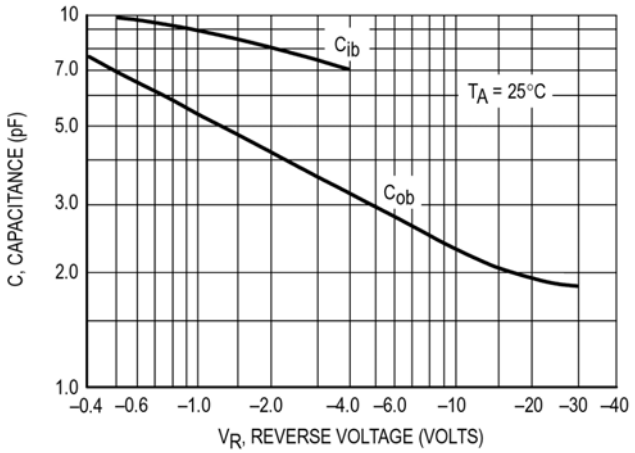
"Saturation" and "On" Voltages



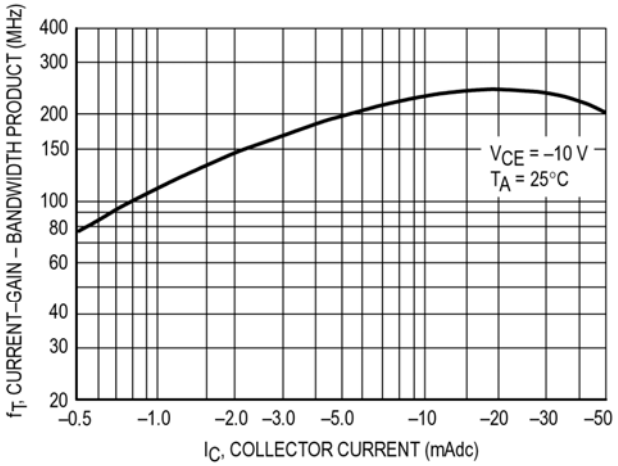
Collector Saturation Region



Base–Emitter Temperature Coefficient



Capacitances



Current–Gain – Bandwidth Product

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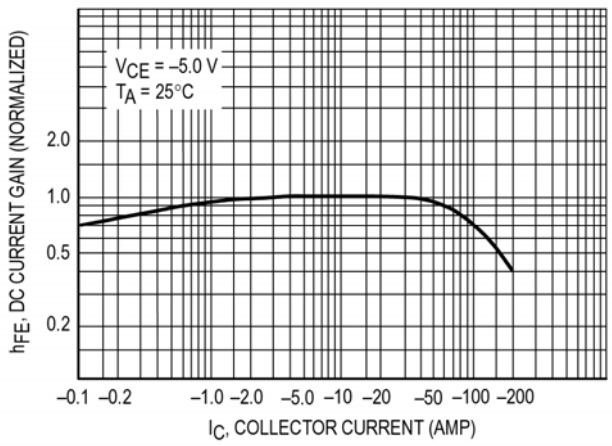
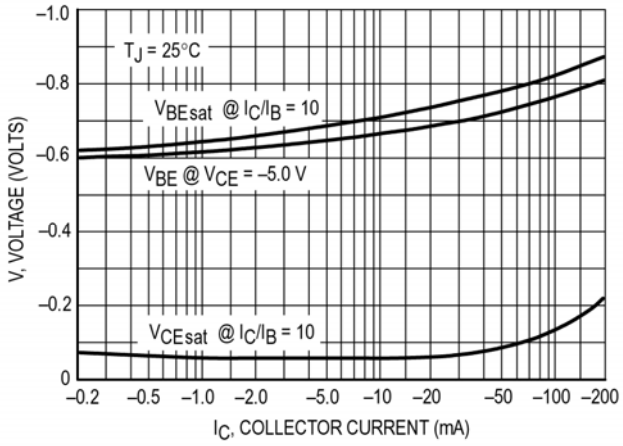
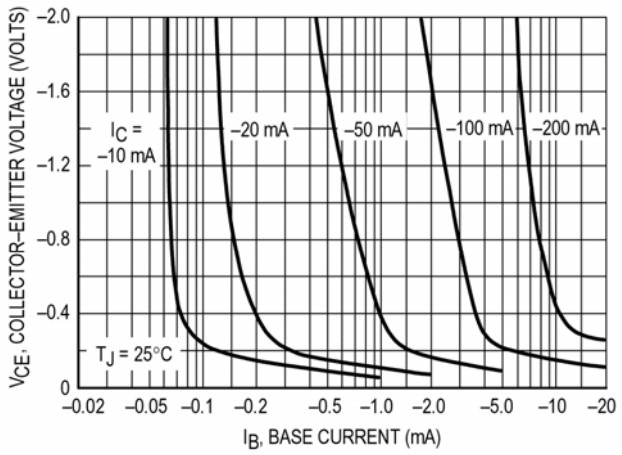
BC556



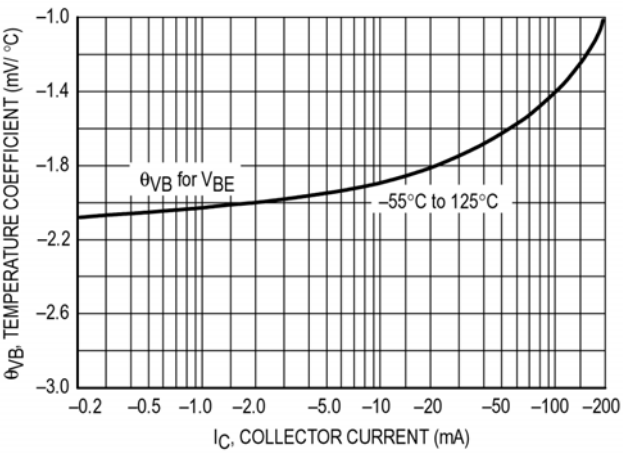
DC Current Gain



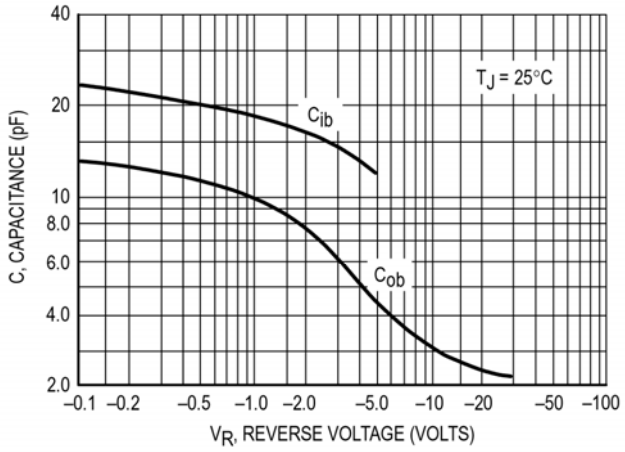
“On” Voltage



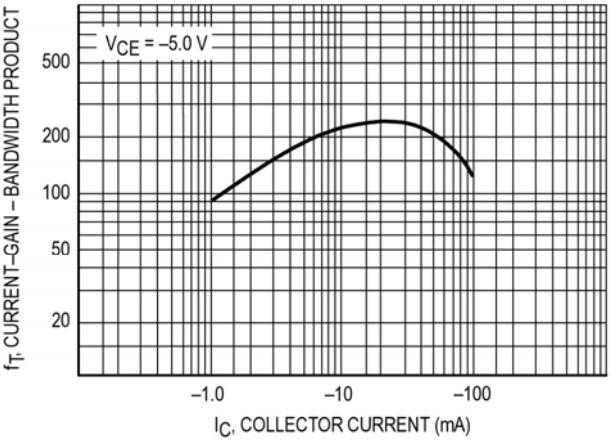
Collector Saturation Region



Base–Emitter Temperature Coefficient



Capacitance



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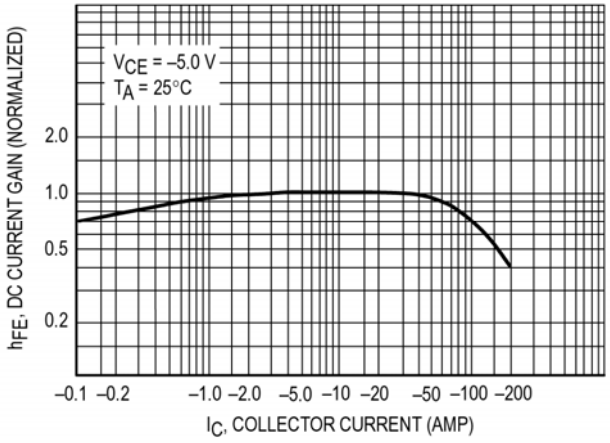
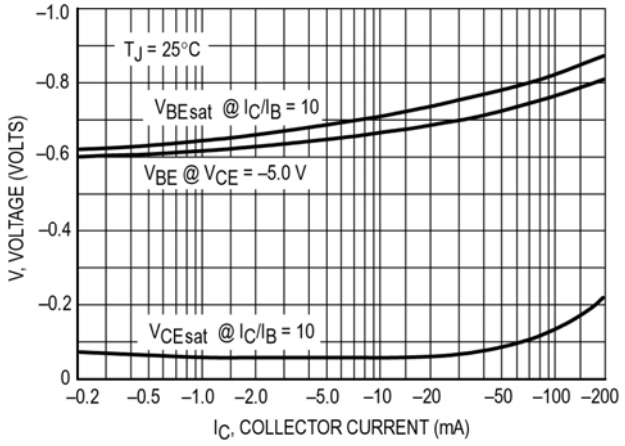
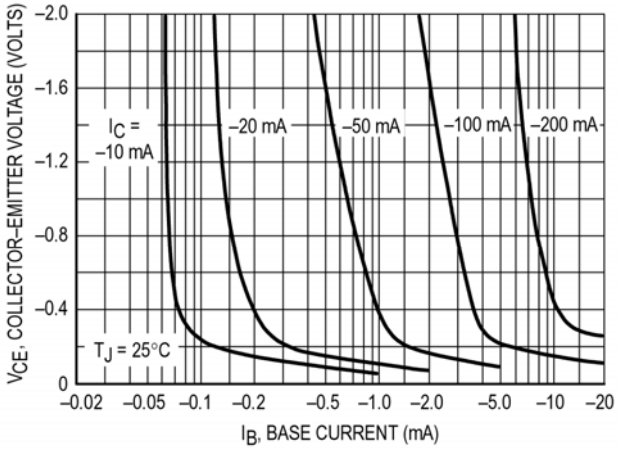


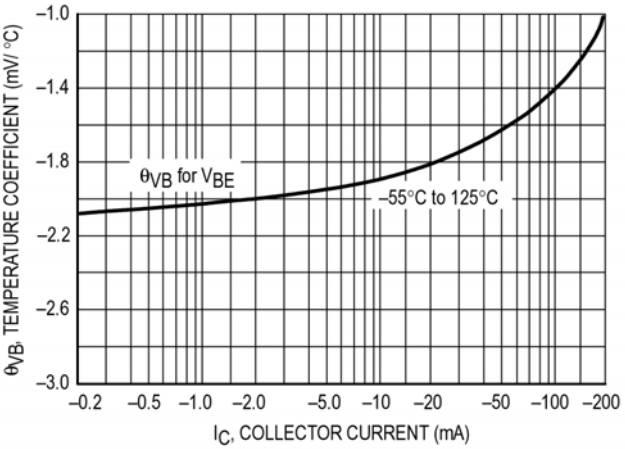
DC Current Gain



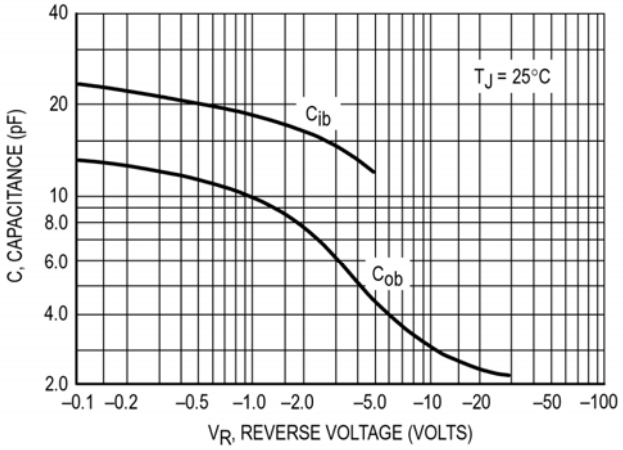
“On” Voltage



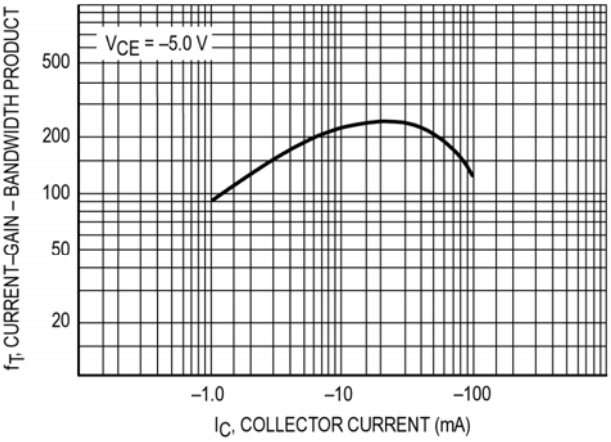
Collector Saturation Region



Base–Emitter Temperature Coefficient



Capacitance



Current–Gain – Bandwidth Product