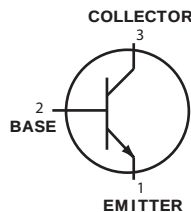
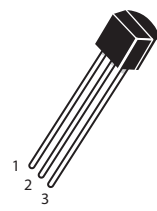


PNP General Purpose Transistor

 Lead(Pb)-Free



TO-92



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Rating	Symbol	BC556	BC557	BC558	Unit
Collector-Emitter Voltage	V_{ECO}	-65	-45	-30	Vdc
Collector-Base Voltage	V_{CBO}	-80	-50	-30	Vdc
Emitter-Base Voltage	V_{EBO}	-5	-5	-5	Vdc
Collector Current Continuous	I_C	100			mAdc

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Total Device Dissipation Alumina Substrate, $T_A = 25^{\circ}\text{C}$	P_D	625	mW/ $^{\circ}\text{C}$
Junction and Storage, Temperature	T_J, T_{stg}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ($I_C = 2 \text{ mAdc}$, $I_B = 0$)	BC556 BC557 BC558	$V_{(BR)CEO}$	-65 -45 -30	- - -	Vdc
Collector-Base Breakdown Voltage ($I_C = 100 \mu\text{Adc}$, $I_E = 0$)	BC556 BC557 BC558	$V_{(BR)CBO}$	-80 -50 -30	- - -	Vdc
Emitter-Base Breakdown Voltage ($I_E = 100 \mu\text{Adc}$, $I_C = 0$)	BC556 BC557 BC558	$V_{(BR)EBO}$	-5	-	Vdc

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Max	Unit
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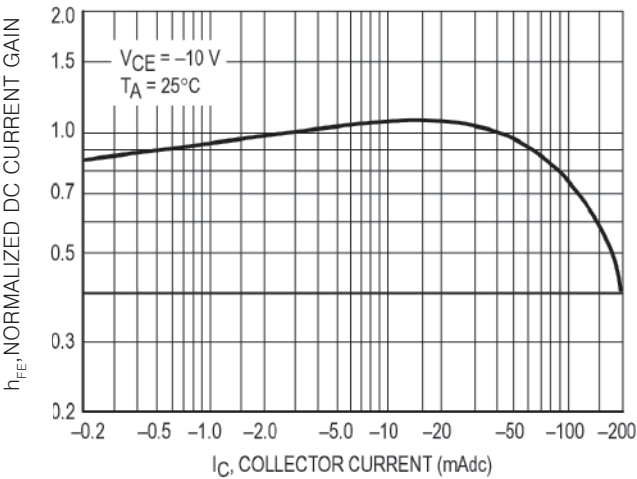
OFF CHARACTERISTICS

Collector Cutoff Current ($V_{CE} = -60\text{V}$, $I_B = 0$) ($V_{CE} = -40\text{V}$, $I_B = 0$) ($V_{CE} = -25\text{V}$, $I_B = 0$)	BC556	I_{CEO}	-	-0.1	μA
	BC557		-		
	BC558		-		
Collector Cutoff Current ($V_{CB} = -70\text{V}$, $I_E = 0$) ($V_{CB} = -45\text{V}$, $I_E = 0$) ($V_{CB} = -25\text{V}$, $I_E = 0$)	BC556	I_{CBO}	-	-0.1	μA
	BC557		-		
	BC558		-		
Emitter Cutoff Current ($V_{EB} = -5.0\text{Vdc}$, $I_C = 0$)	BC556	I_{EBO}	-	-0.1	μA
	BC557				
	BC558				

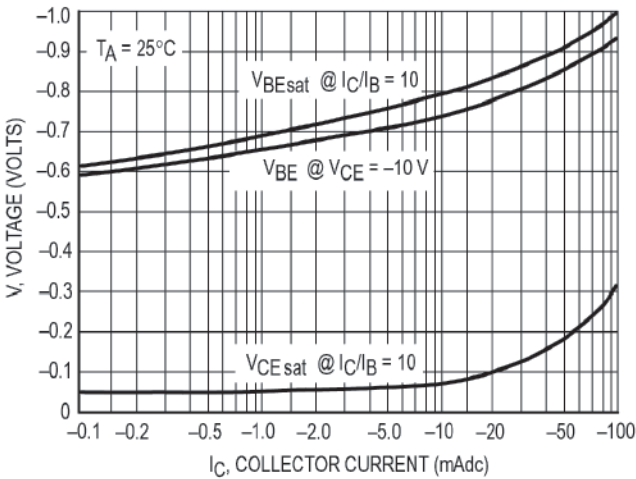
ON CHARACTERISTICS

DC current gain ($V_{CE} = -5\text{V}$, $I_C = -2\text{mA}$)	BC556	h_{FE}	120	500	
	BC557		120	800	
	BC558		120	800	
	BC556A/BC557A/BC558A		120	220	
	BC556B/BC557B/BC558B		180	460	
	BC557C/BC558C		420	800	
Collector-emitter saturation voltage ($I_C = -100\text{mA}$, $I_B = -5\text{mA}$)		$V_{CE(sat)}$	-	-0.3	V
Base-emitter saturation voltage ($I_C = -100\text{mA}$, $I_B = -5\text{mA}$)		$V_{BE(sat)}$	-	-1	V
Transition frequency ($V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$, $f = 100\text{MHz}$)		f_T	150	-	MHz

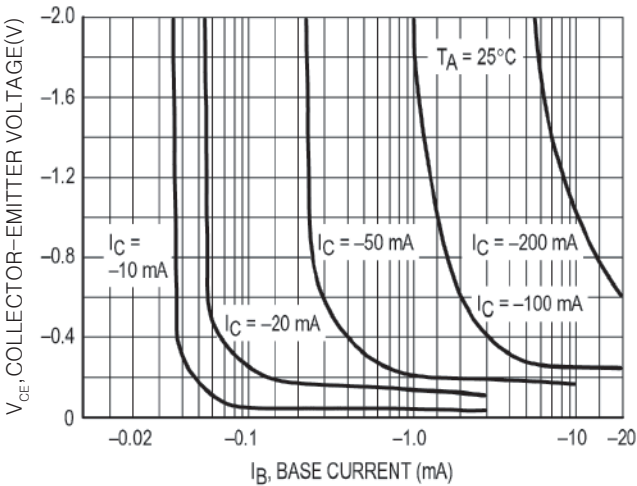
BC557/BC558



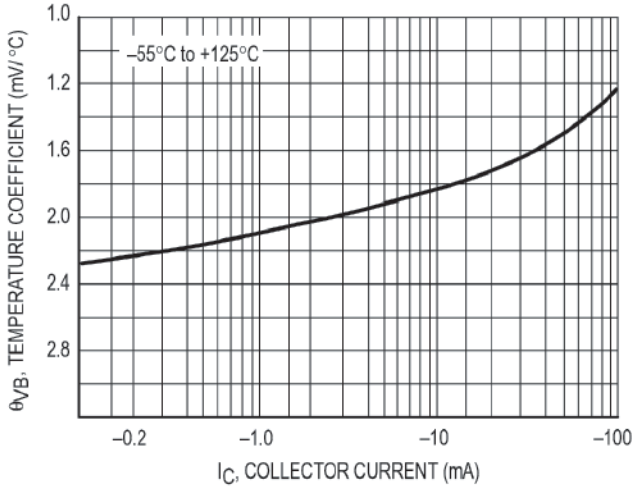
Normalized DC Current Gain



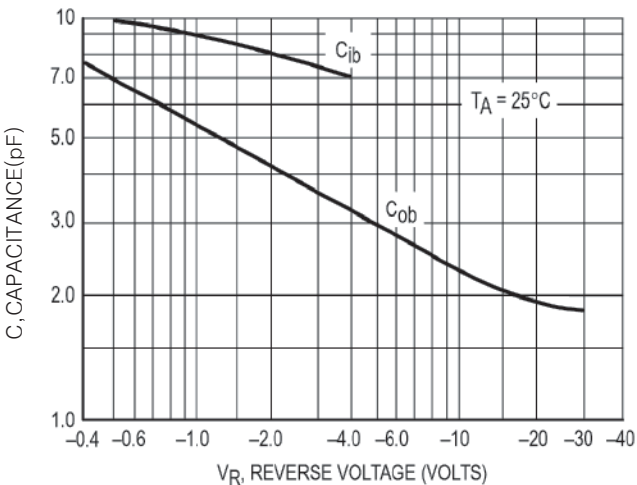
“Saturation” and “On” Voltages



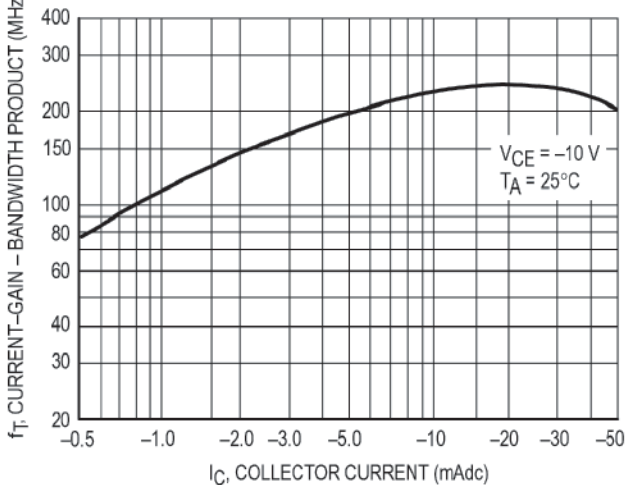
Collector Saturation Region



Base-Emitter Temperature Coefficient

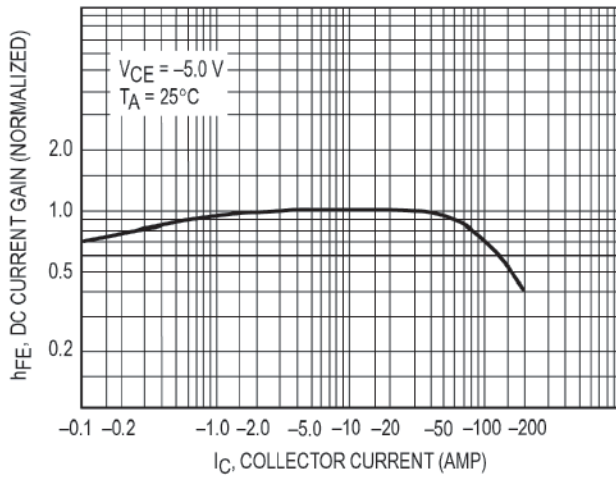


Capacitances

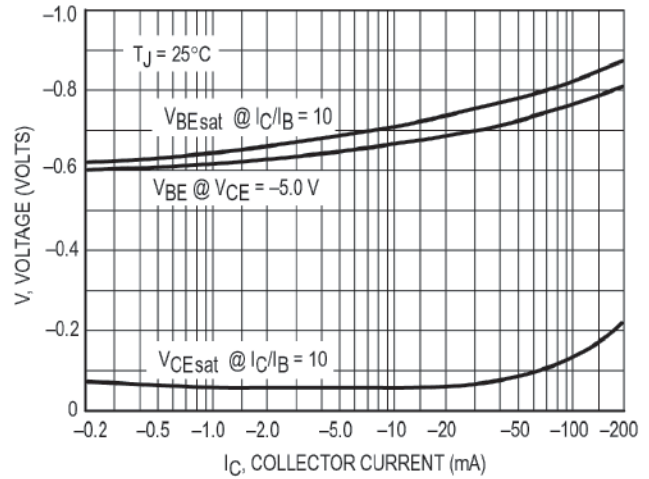


Current-Gain – Bandwidth Product

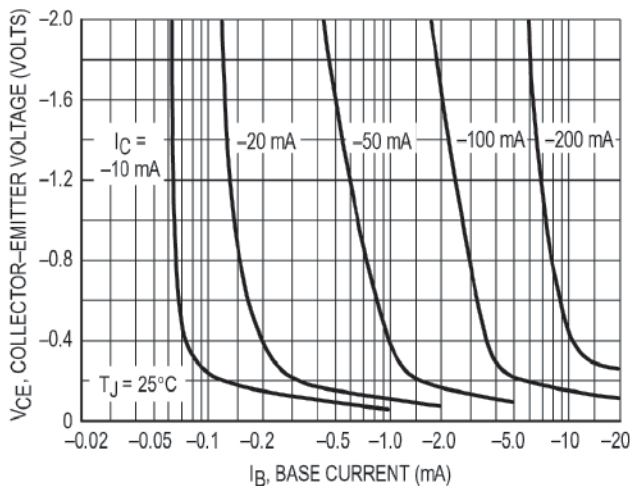
BC556



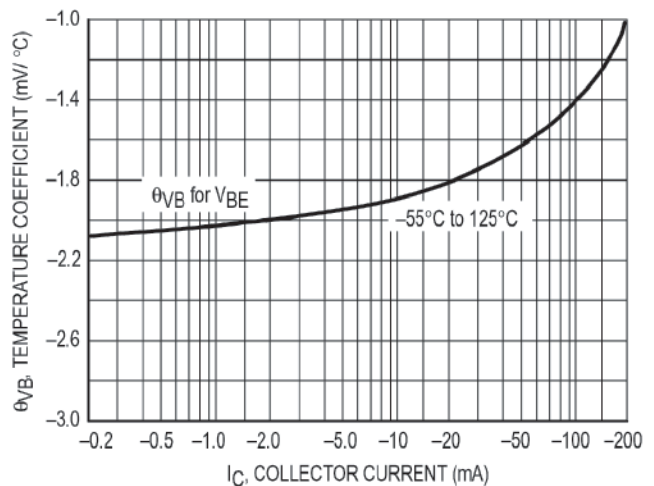
DC Current Gain



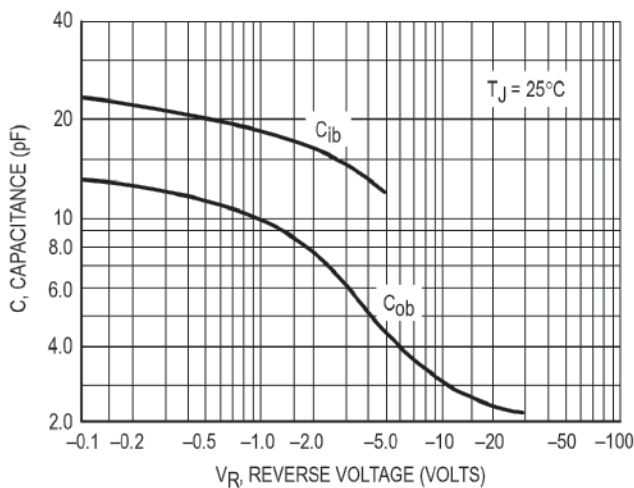
"On" Voltage



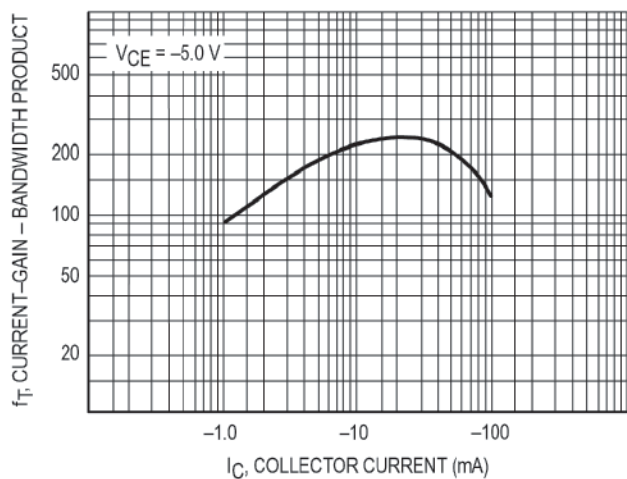
Collector Saturation Region



Base-Emitter Temperature Coefficient



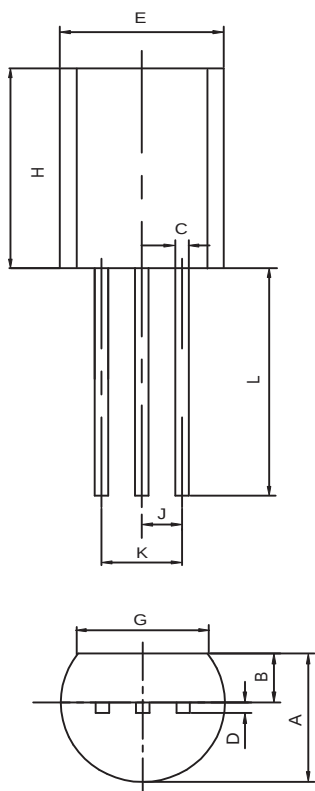
Capacitance



Current-Gain - Bandwidth Product

TO-92 Outline Dimensions

unit:mm



TO-92		
Dim	Min	Max
A	3.30	3.70
B	1.10	1.40
C	0.38	0.55
D	0.36	0.51
E	4.40	4.70
G	3.43	-
H	4.30	4.70
J	1.270TYP	
K	2.44	2.64
L	14.10	14.50