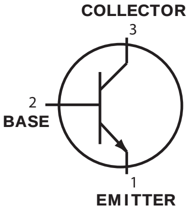
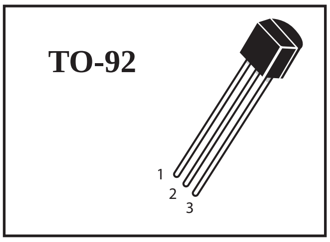
WEITRON

BC556, A/B
BC557, A/B/C
BC558, A/B/C

PNP General Purpose Transistor

Lead(Pb)-Free





Maximum Ratings (TA=25°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°C	BC556 BC557 BC558	P_D	625	mW/ °C
Junction and Storage, Temperature	BC556 BC557 BC558	T_J, Tstg	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

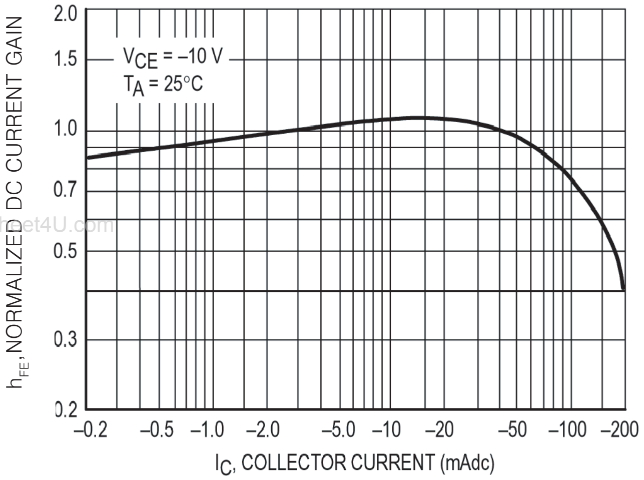
OFF CHARACTERISTICS

Characteristics		Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I_C= 2 mAdc. I_B=0)	BC556	$V_{(BR)CEO}$	-65	-	Vdc
	BC557		-45	-	
	BC558		-30	-	
Collector-Base Breakdown Voltage (I_C= 100 μAdc. I_E=0)	BC556	$V_{(BR)CBO}$	-80	-	Vdc
	BC557		-50	-	
	BC558		-30	-	
Emitter-Base Breakdown Voltage (I_E = 100 μAdc. I_C=0)	BC556 BC557 BC558	$V_{(BR)EBO}$	-5	-	Vdc

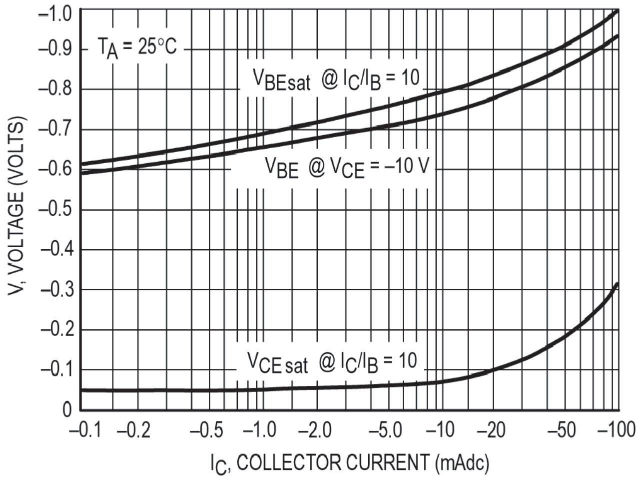
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (Countinued)

Characteristics		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector Cutoff Current					
(V_{CE}=-60V, I_B=0)	**BC556**	I_{CEO}	-	-0.1	µA
(V_{CE}=-40V, I_B=0)	**BC557**		-		
(V_{CE}=-25V, I_B=0)	**BC558**		-		
Collector Cutoff Current					
(V_{CB}=-70V, I_E=0)	**BC556**	I_{CBO}	-	-0.1	µA
(V_{CB}=-45V, I_E=0)	**BC557**		-		
(V_{CB}=-25V, I_E=0)	**BC558**		-		
Emitter Cutoff Current (V_{EB}=-5.0 Vdc, I_C=0)	**BC556** **BC557** **BC558**	I_{EBO}	-	-0.1	µA
ON CHARACTERISTICS					
DC current gain (V_{CE}=-5V, I_C=-2mA)	**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=-100mA, I_B=-5mA)		$V_{CE(sat)}$	-	-0.3	V
Base-emitter saturation voltage (I_C=-100mA, I_B=-5mA)		$V_{BE(sat)}$	-	-1	V
Transition frequency (V_{CE}=-5V, I_C=-10mA, f=100MHz)		f_T	150	-	MHz

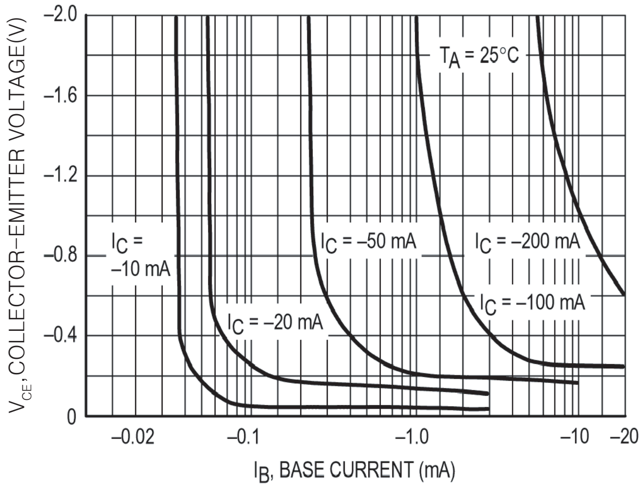
BC557/BC558



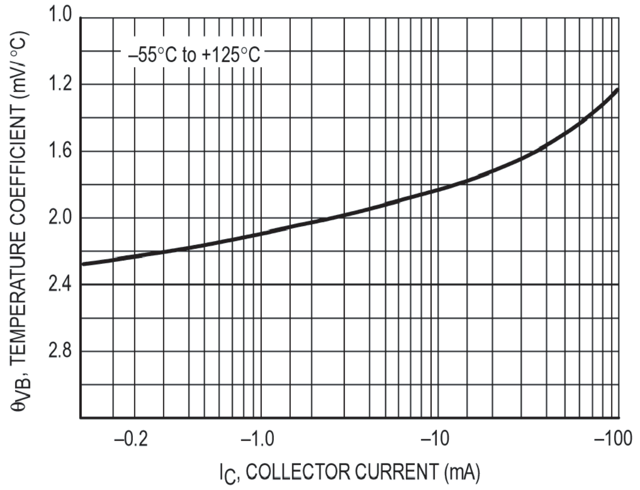
Normalized DC Current Gain



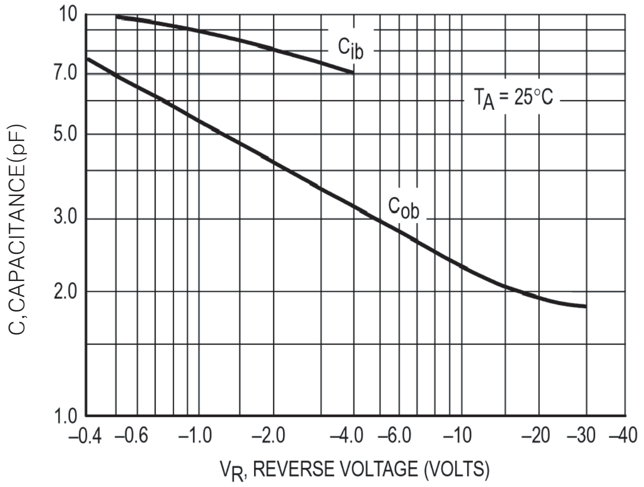
"Saturation" and "On" Voltages



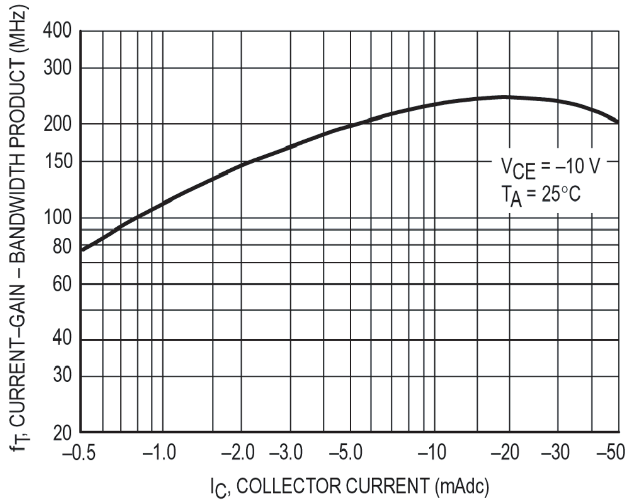
Collector Saturation Region



Base–Emitter Temperature Coefficient

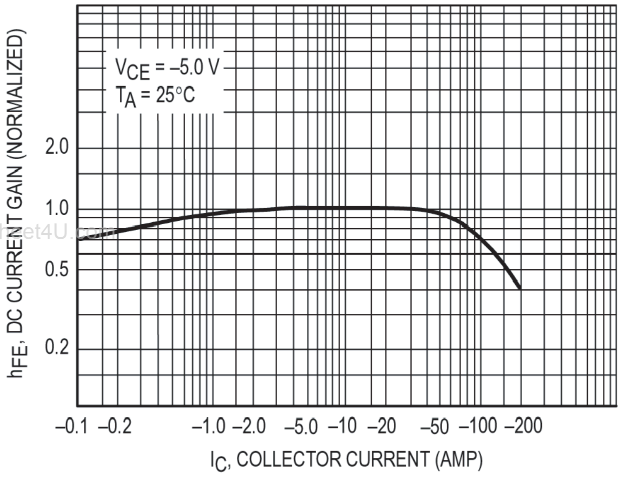


Capacitances

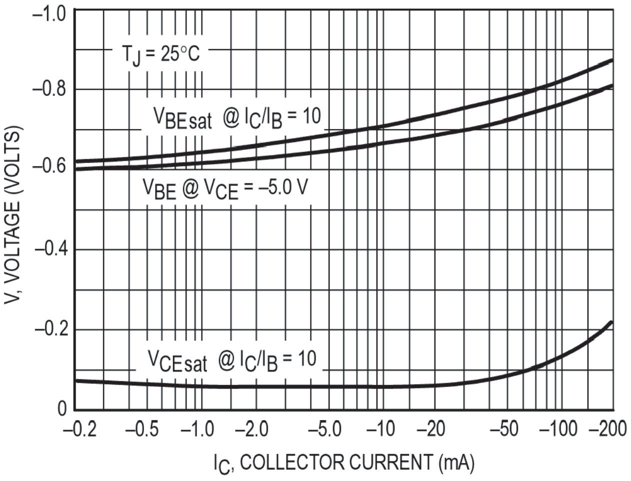


Current–Gain – Bandwidth Product

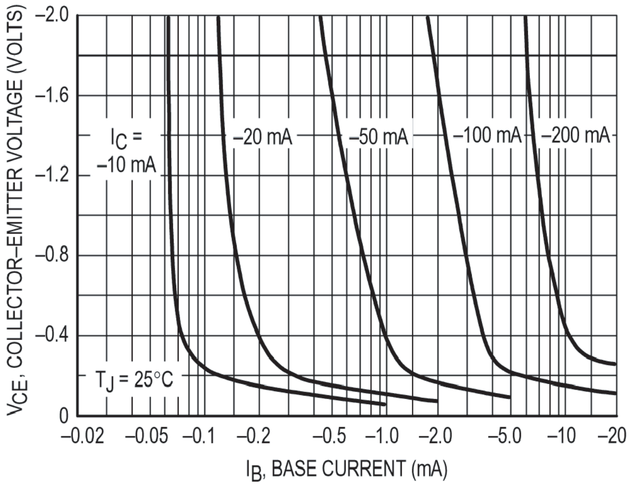
BC556



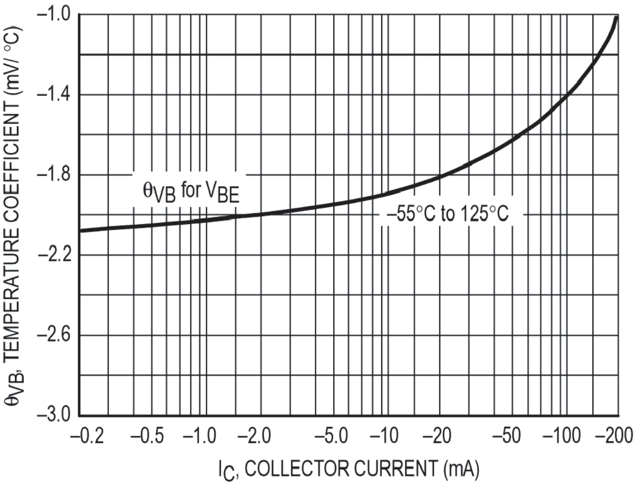
DC Current Gain



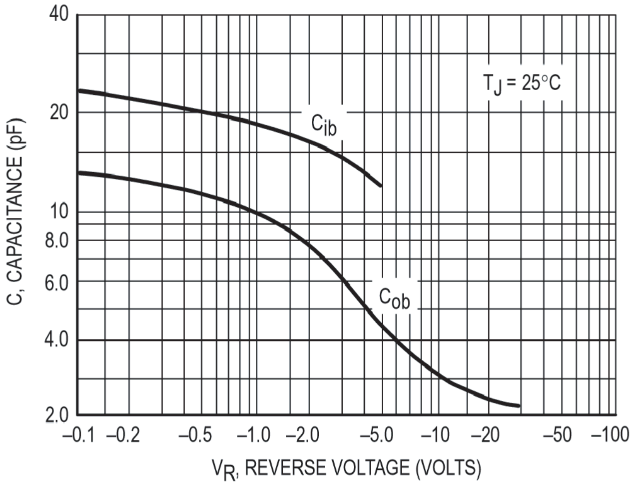
"On" Voltage



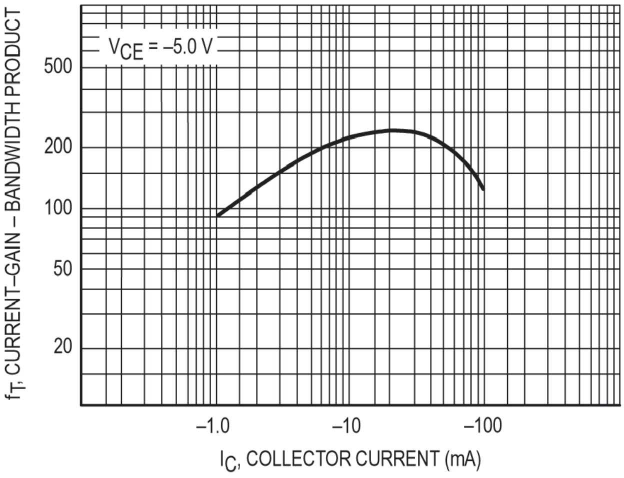
Collector Saturation Region



Base–Emitter Temperature Coefficient



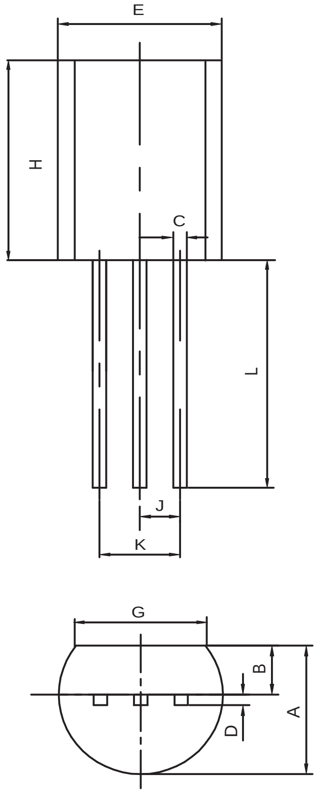
Capacitance



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