

TO-92 Plastic-Encapsulate Transistors

BC556 , B
BC557, A, B, C
BC558, B TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM} : 0.625 \text{ W (} T_{amb}=25 \text{)}$$

Collector current

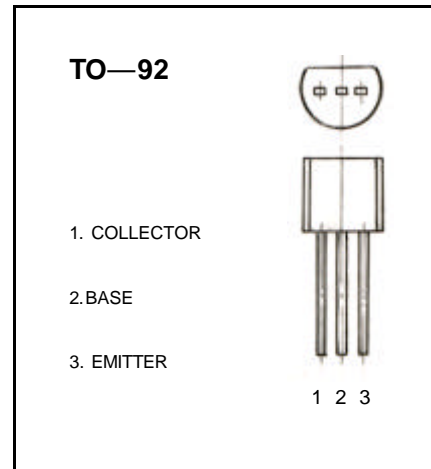
$$I_{CM} : -0.1 \text{ A}$$

Collector-base voltage

$$V_{CBO} : \begin{array}{ll} \text{BC556} & -80 \text{ V} \\ \text{BC557} & -50 \text{ V} \\ \text{BC558} & -30 \text{ V} \end{array}$$

Operating and storage junction temperature range

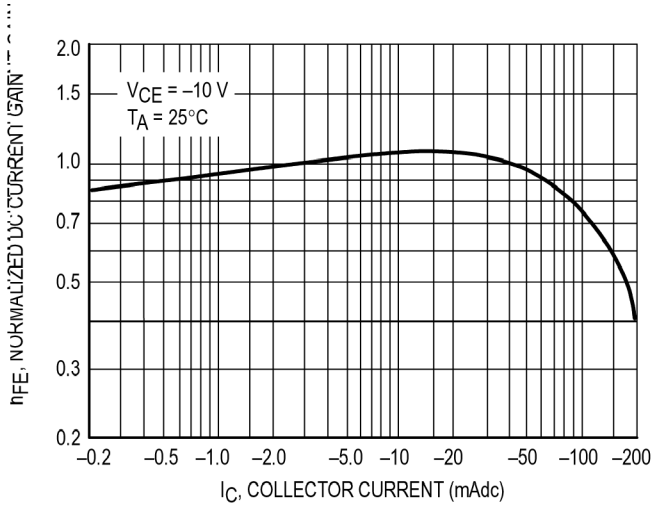
$$T_J, T_{stg} : -55 \text{ to } +150$$



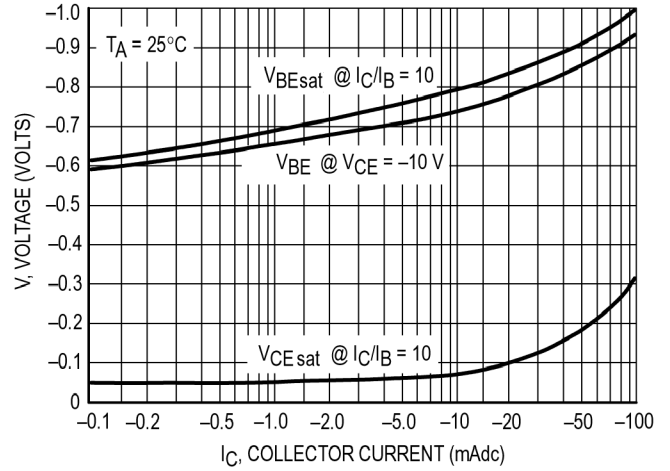
ELECTRICAL CHARACTERISTICS ($T_{amb}=25$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BC556 BC557 BC558	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-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}	$I_E = -100 \mu A, I_C = 0$	-5	V
Collector cut-off current	BC556 BC557 BC558	I_{CBO}	$V_{CB} = -70 \text{ V}, I_E = 0$ $V_{CB} = -45 \text{ V}, I_E = 0$ $V_{CB} = -25 \text{ V}, I_E = 0$	-0.1	μA
Collector cut-off current	BC556 BC557 BC558	I_{CEO}	$V_{CE} = -60 \text{ V}, I_B = 0$ $V_{CE} = -40 \text{ V}, I_B = 0$ $V_{CE} = -25 \text{ V}, I_B = 0$	-0.1	μA
Emitter cut-off current	BC556 BC557 BC558	I_{EBO}	$V_{EB} = -5 \text{ V}, I_C = 0$	-0.1	μA
DC current gain	BC556 BC557 BC558 BC557A BC556B/BC557B/BC558B BC557C	$h_{FE(1)}$	$V_{CE} = -5 \text{ V}, I_C = -2mA$	120 120 120 120 180 420	500 800 800 220 460 800
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -5mA$	-0.3	V
Base-emitter saturation voltage		$V_{BE(sat)}$	$I_C = -100 \text{ mA}, I_B = -5mA$	-1	V
Transition frequency		f_T	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	150	MHz

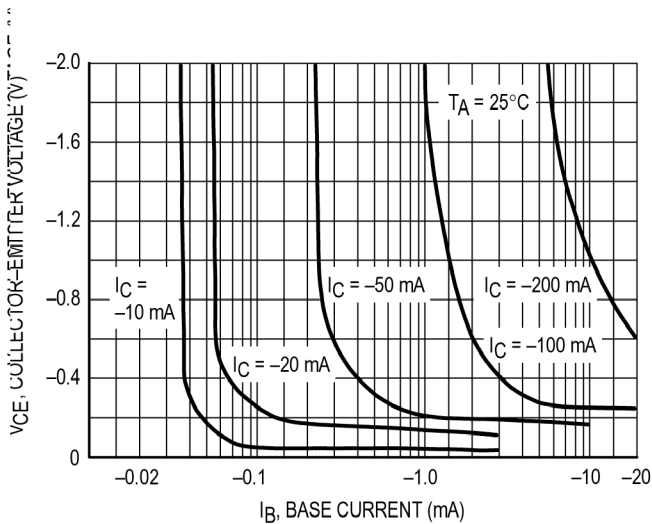
BC557/BC558



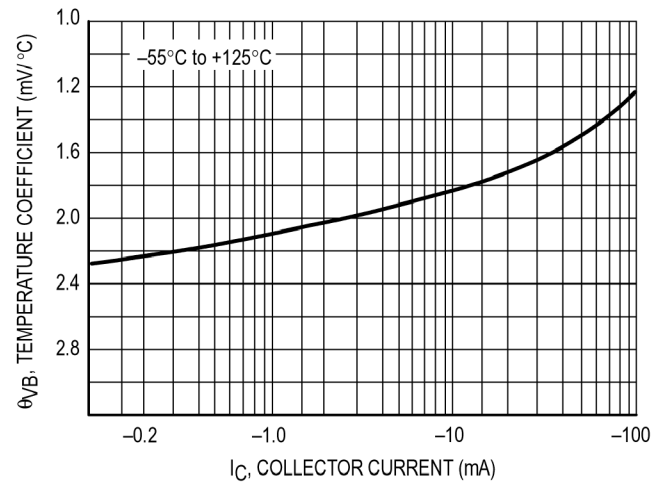
Normalized DC Current Gain



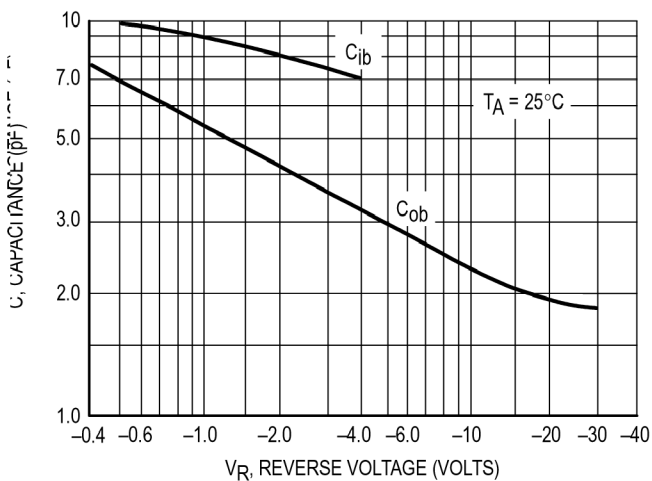
“Saturation” and “On” Voltages



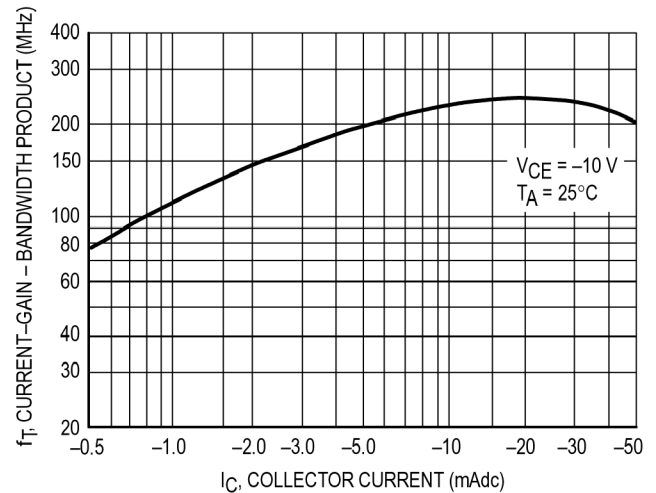
Collector Saturation Region



Base-Emitter Temperature Coefficient

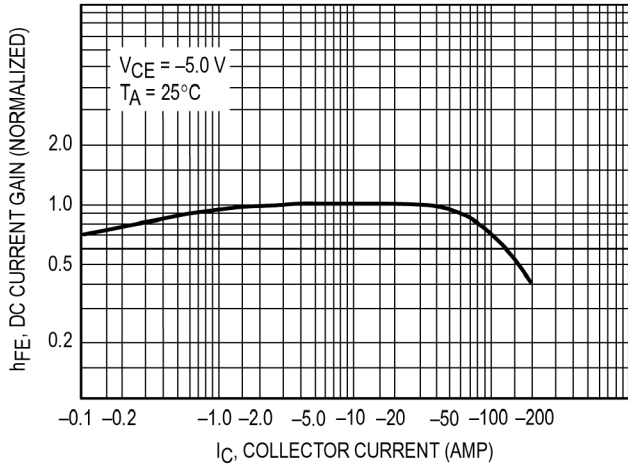


Capacitances

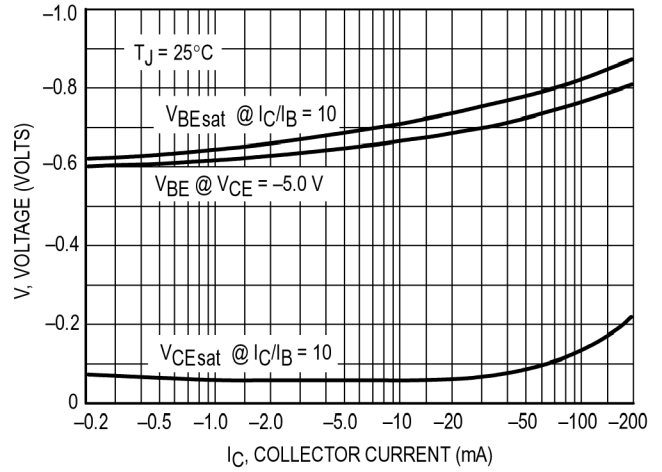


Current-Gain - Bandwidth Product

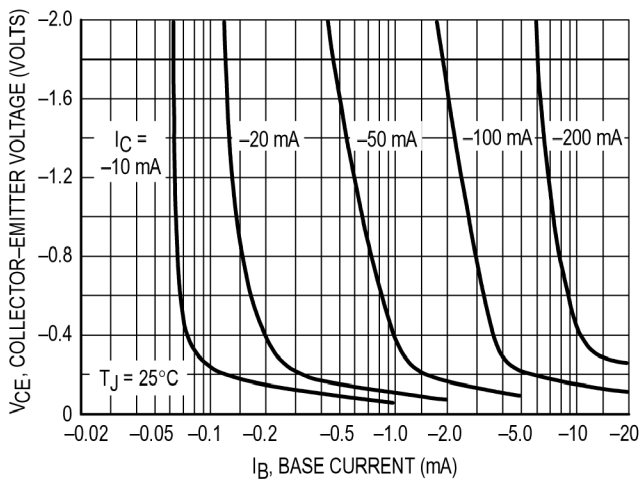
BC556



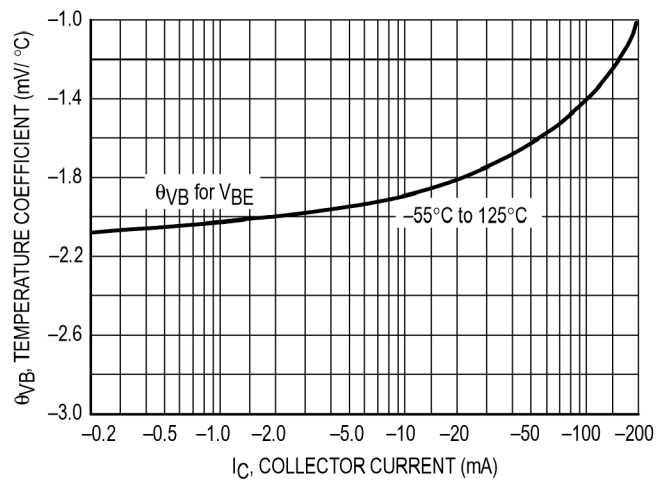
DC Current Gain



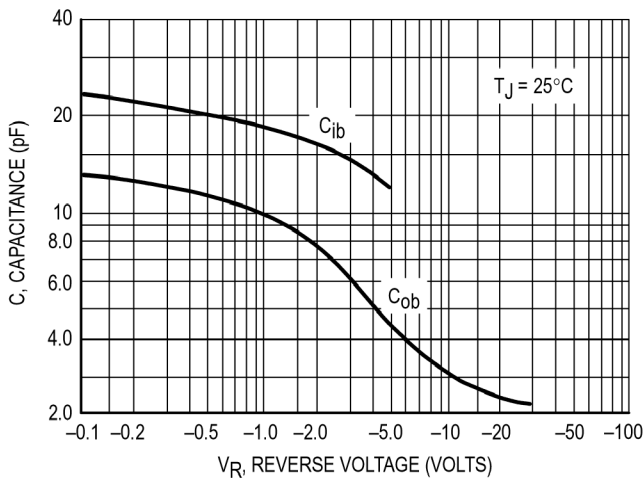
"On" Voltage



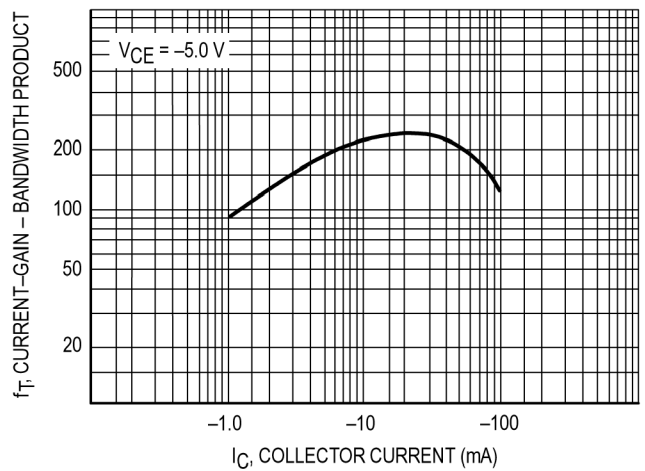
Collector Saturation Region



Base-Emitter Temperature Coefficient

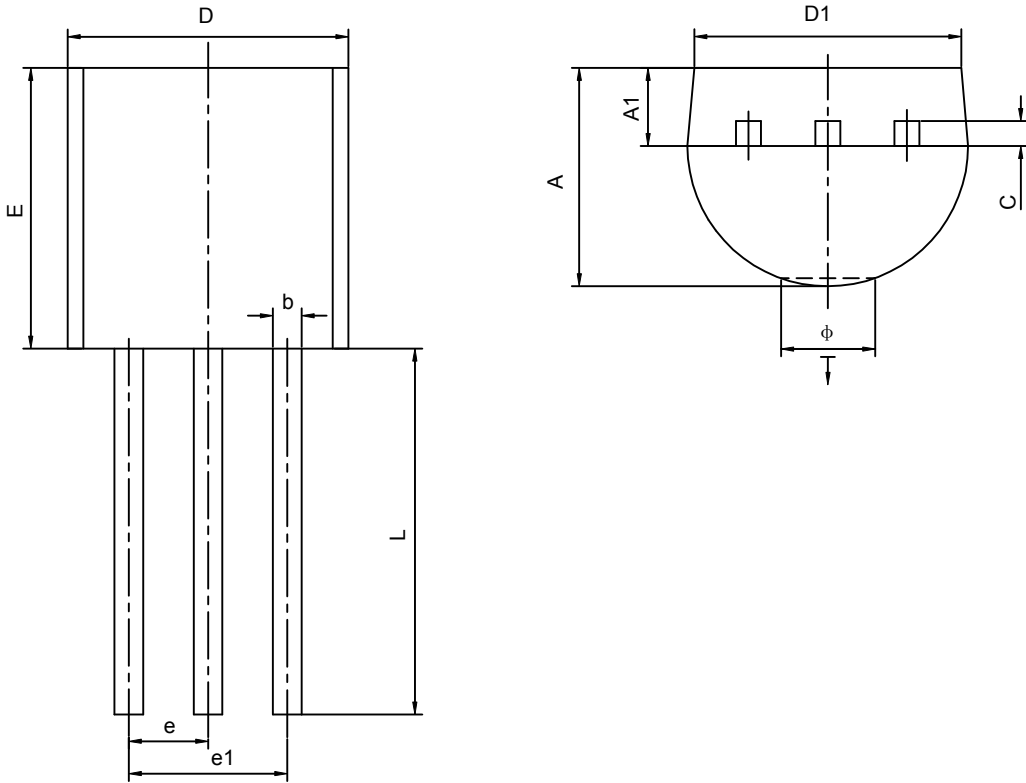


Capacitance



Current-Gain - Bandwidth Product

TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
↓	0.000	0.380	0.000	0.015