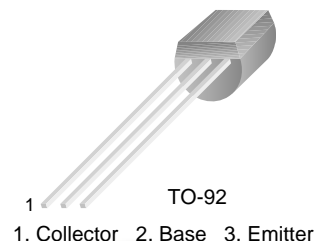


BC556/557/558/559/560

PNP Epitaxial Silicon Transistor

Features

- Switching and Amplifier
- High Voltage: BC556, $V_{CEO} = -65V$
- Low Noise: BC559, BC560
- Complement to BC546 ... BC 550



Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage : BC556 : BC557/560 : BC558/559	-80 -50 -30	V V V
V_{CEO}	Collector-Emitter Voltage : BC556 : BC557/560 : BC558/559	-65 -45 -30	V V V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-100	mA
P_C	Collector Power Dissipation	500	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-65 ~ 150	$^\circ C$

Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	$V_{CB} = -30V, I_E = 0$			-15	nA
h_{FE}	DC Current Gain	$V_{CE} = -5V, I_C = 2mA$	110		800	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10mA, I_B = -0.5mA$ $I_C = -100mA, I_B = -5mA$		-90 -250	-300 -650	mV mV
$V_{BE(sat)}$	Collector-Base Saturation Voltage	$I_C = -10mA, I_B = -0.5mA$ $I_C = -100mA, I_B = -5mA$		-700 -900		mV mV
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -5V, I_C = -2mA$ $V_{CE} = -5V, I_C = -10mA$	-600	-660	-750 -800	mV mV
f_T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_C = -10mA, f = 10MHz$		150		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$			6	pF
NF	Noise Figure : BC556/557/558 : BC559/560 : BC559 : BC560	$V_{CE} = -5V, I_C = -200\mu A$ $f = 1KHz, R_G = 2K\Omega$ $V_{CE} = -5V, I_C = -200\mu A$ $R_G = 2K\Omega, f = 30 \sim 15000MHz$		2 1 1.2 1.2	10 4 4 2	dB dB dB dB

h_{FE} Classification

Classification	A	B	C
h_{FE}	110 ~ 220	200 ~ 450	420 ~ 800

Typical Performance Characteristics

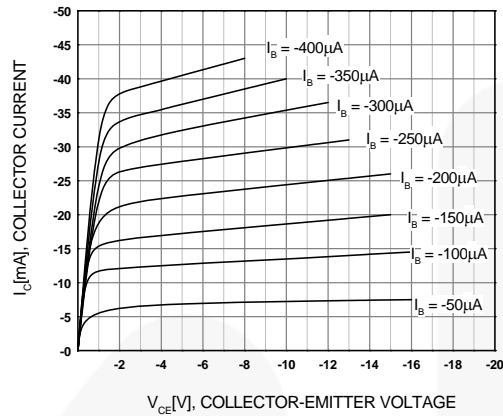


Figure 1. Static Characteristic

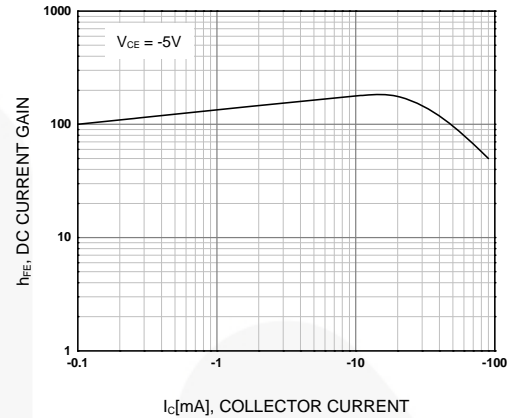


Figure 2. DC current Gain

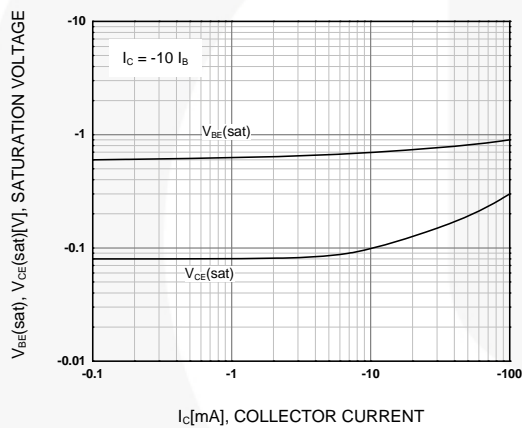


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

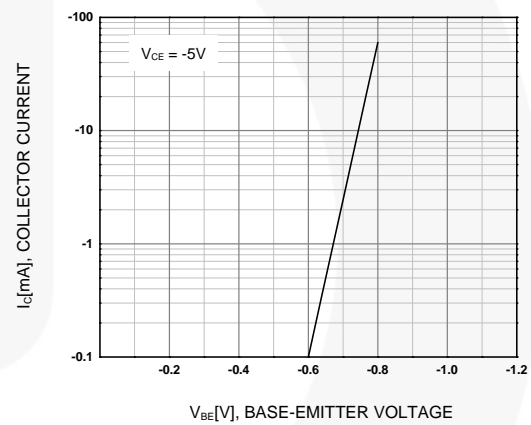


Figure 4. Base-Emitter On Voltage

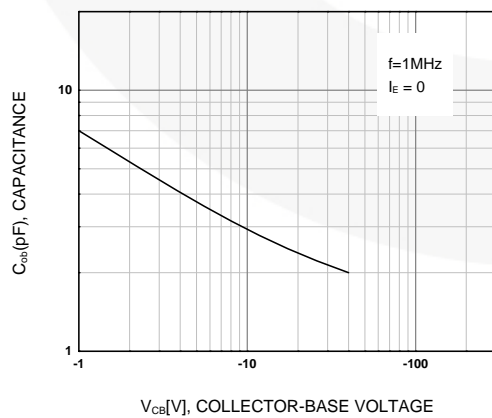


Figure 5. Collector Output Capacitance

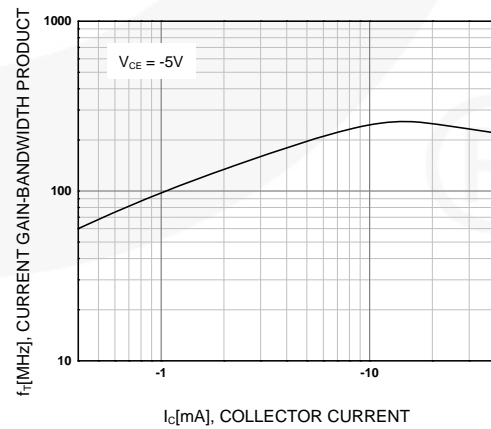
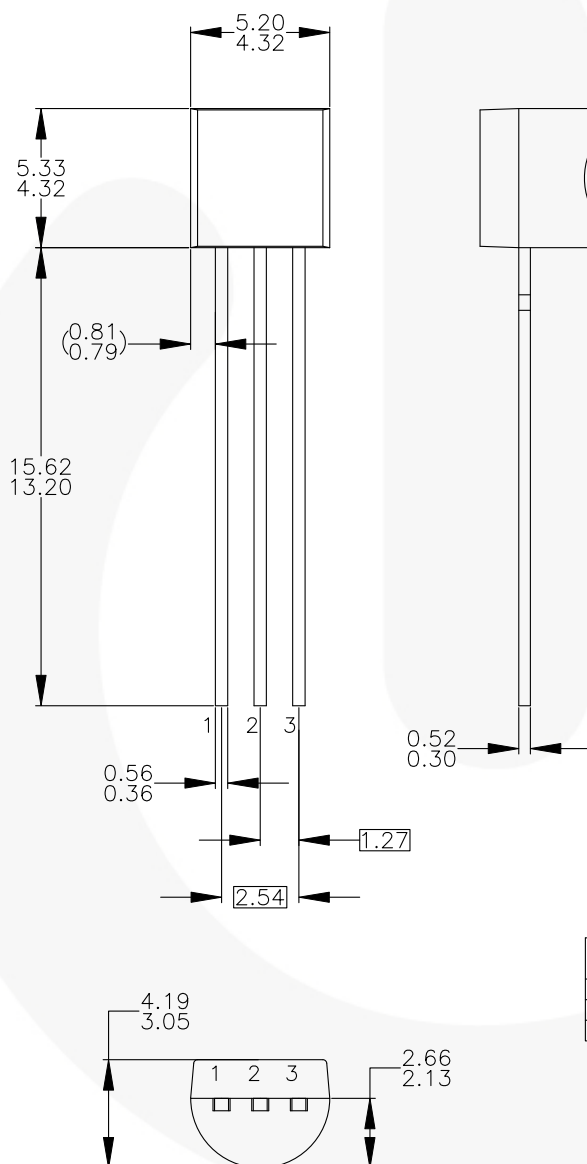


Figure 6. Current Gain Bandwidth Product

Physical Dimensions

TO-92



NOTES: UNLESS OTHERWISE SPECIFIED

- A) DRAWING WITH REFERENCE TO JEDEC TO-92 RECOMMENDATIONS.
B) ALL DIMENSIONS ARE IN MILLIMETERS.
C) DRAWING CONFORMS TO ASME Y14.5M-1994.
D) TO-92 (92,94,96,97,98) PIN CONFIGURATION:

P.N	92			94			96			97			98		
	P	F	M	P	F	M	B	F	M	P	F	M	P	F	M
1	E	S	S	E	S	S	B	D	G	C	G	D	C	G	D
2	B	D	G	C	G	D	E	S	S	B	D	G	E	S	S
3	C	G	D	B	D	G	C	G	D	E	S	S	B	D	G

LEGEND:

LEGEND:

P — BIPOLAR	E — EMITTER	D — DRAIN
F — JFET	B — BASE	S — SOURCE
M — DMOS	C — COLLECTOR	G — GATE



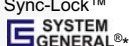
- E) FOR PACKAGE 92, 94, 96, 97 AND 98:
PIN CONFIGURATION DRAIN "D" AND SOURCE "S"
ARE INTERCHANGEABLE AT JFET "F" OPTION.
- F) DRAWING FILENAME: MKT-ZA03DREV3.

Dimensions in Millimeters



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FETBench™			XS™
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