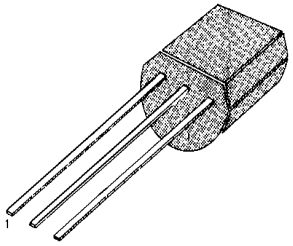
BC556/557/558/559/560

PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING AND AMPLIFIER

- HIGH VOLTAGE: BC556, V_{CEO}= -65V
- LOW NOISE: BC559, BC560
- Complement to BC546 ... BC 550

TO-92



1. Collector 2. Base 3. Emitter

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Capacitance	V_{CBO}		
: BC556		-80	V
: BC557/560		-50	V
: BC558/559		-30	V
Collector-Emitter Voltage	V_{CEO}		
: BC556		-65	V
: BC557/560		-45	V
: BC558/559		-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-100	mA
Collector Dissipation	P_C	500	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-65 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

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

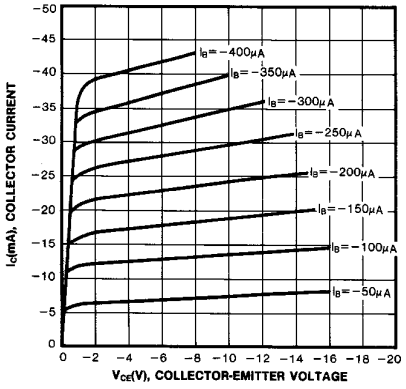
h_{FE} CLASSIFICATION

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

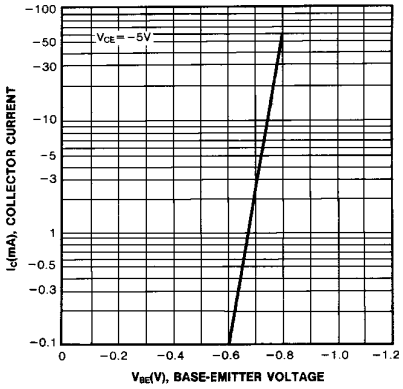
Rev. B

FAIRCHILD SEMICONDUCTOR TM

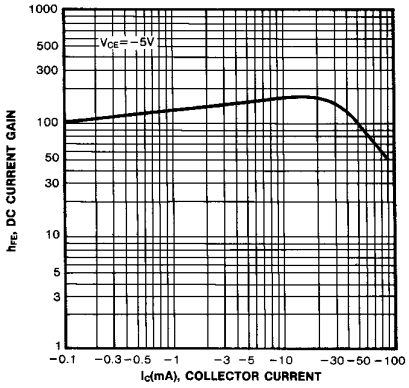
STATIC CHARACTERISTIC



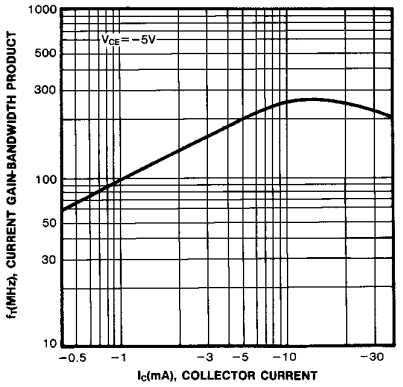
BASE-EMITTER VOLTAGE



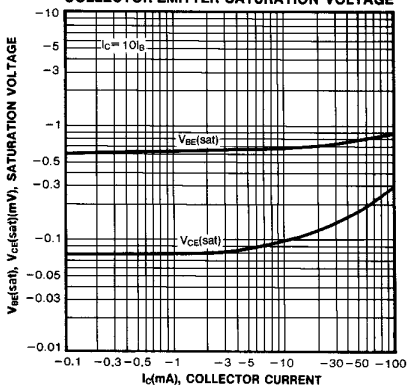
DC CURRENT GAIN



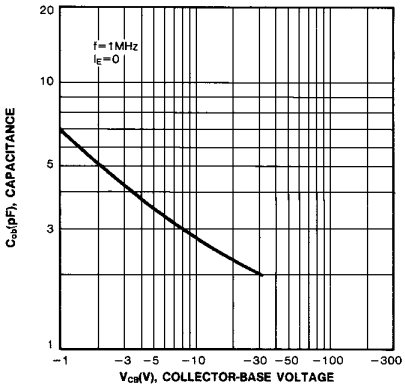
CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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