

# BC556/557/558/559/560

# PNP EPITAXIAL SILICON TRANSISTOR

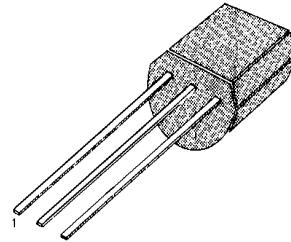
## SWITCHING AND AMPLIFIER

- HIGH VOLTAGE: BC556,  $V_{CE0} = -65V$
- LOW NOISE: BC559, BC560
- Complement to BC546 ... BC 550

## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ C$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Capacitance	$V_{CBO}$	-80	V
: BC556		-50	V
: BC557/560		-30	V
Collector-Emitter Voltage	$V_{CEO}$	-65	V
: BC556		-45	V
: BC557/560		-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	$^\circ C$
Storage Temperature	$T_{STG}$	-65 ~ 150	$^\circ C$

TO-92



1. Collector 2. Base 3. Emitter

## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ C$ )

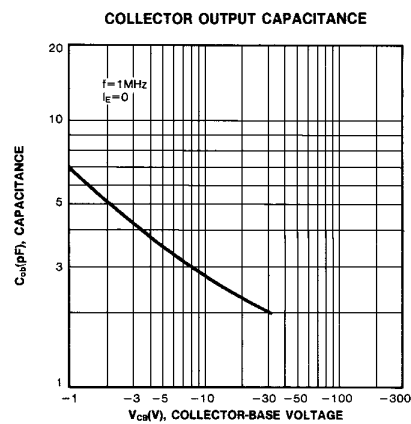
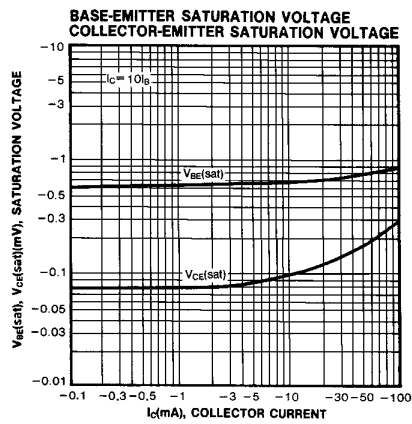
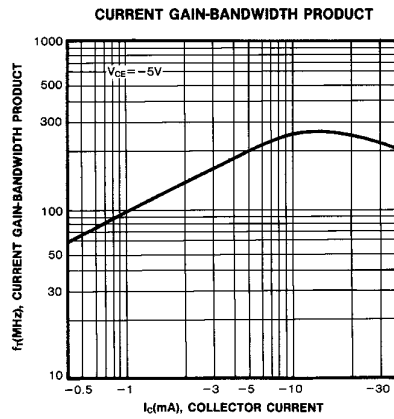
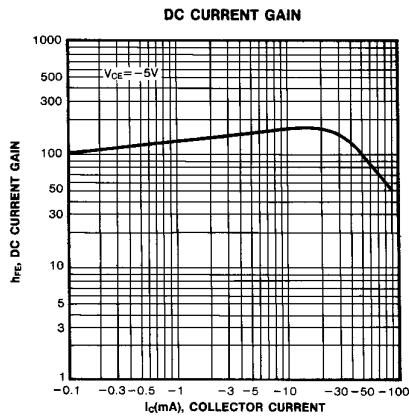
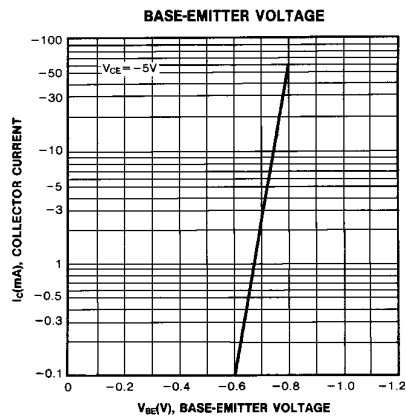
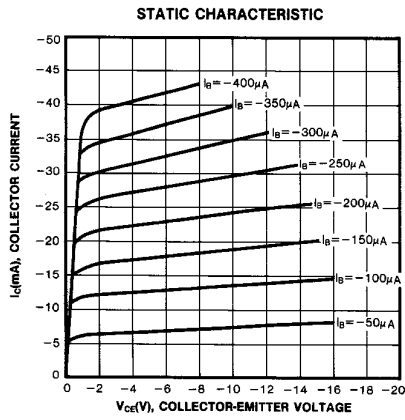
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$			-15	nA
DC Current Gain	$h_{FE}$	$V_{CE} = -5V, I_C = 2mA$	110		800	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.5mA$		-90	-300	mV
Collector Base Saturation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

## $h_{FE}$ CLASSIFICATION

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

BC556/557/558/559/560

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