

BC556/557/558/559/560

Switching and Amplifier

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



1. Collector 2. Base 3. Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		
	: BC556	-80	V
	: BC557/560	-50	V
	: BC558/559	-30	V
V _{CEO}	Collector-Emitter Voltage		
	: BC556	-65	V
	: BC557/560	-45	V
	: BC558/559	-30	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	°C
T _{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	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	V_{CE} = -5V, I_{C} = -200 μ A f=1KHz, R_{G} =2K Ω V_{CE} = -5V, I_{C} = -200 μ A		2 1 1.2	10 4 4	dB dB dB
	: BC560	$R_G=2K\Omega$, $f=30\sim15000MHz$		1.2	2	dB

h_{FE} Classification

Classification	А	В	С
h _{FE}	110 ~ 220	200 ~ 450	420 ~ 800

Typical Characteristics

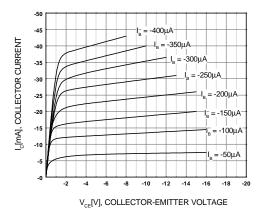


Figure 1. Static Characteristic

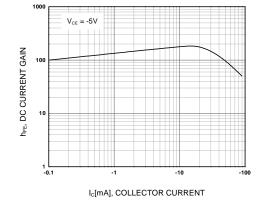


Figure 2. DC current Gain

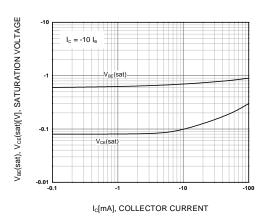


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

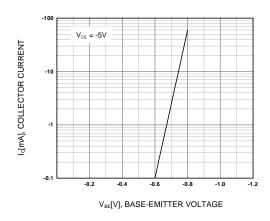


Figure 4. Base-Emitter On Voltage

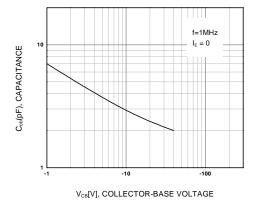


Figure 5. Collector Output Capacitance

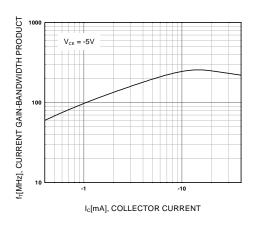
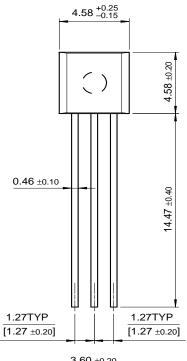


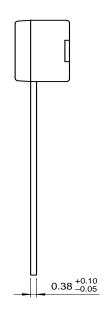
Figure 6. Current Gain Bandwidth Product

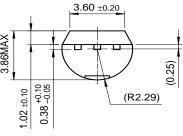
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Package Dimensions

TO-92







Dimensions in Millimeters

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E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
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