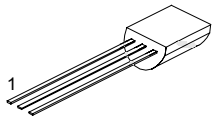
UTC BC556/557/558 PNP EPITAXIAL SILICON TRANSISTOR

SWITCHING AND AMPLIFIER APPLICATIONS

FEATURES

* High Voltage: BC556, V_{CEO}=-65V



TO-92

1: COLLECTOR 2: BASE 3: EMITTER

ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}		
: BC556		-80	V
: BC557		-50	V
: BC558		-30	V
Collector-emitter voltage	V_{CEO}		
: BC556		-65	V
: BC557		-45	V
: BC558		-30	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current (DC)	Ic	-100	mA
Collector dissipation	Pc	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	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, Ic=2mA	110		800	
Collector-emitter saturation voltage	V_{CE}(sat)	Ic=-10mA, I_B=-0.5mA		-90	-300	mV
		Ic=-100mA, I_B=-5mA		-250	-650	mV
Base-emitter saturation voltage	V_{BE}(sat)	Ic=-10mA, I_B=-0.5mA		-700		mV
		Ic=-100mA, I_B=-5mA		-900		
Base-emitter on voltage	V_{BE}(on)	V_{CE}=-5V, Ic=-2mA	-600	-660	-750	mV
		V_{CE}=-5V, Ic=-10mA			-800	mV
Current gain bandwidth product	f_T	V_{CE}=-5V, Ic=-10mA, f=10MHz		150		MHz
Output Capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHz			6	pF

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Noise Figure	NF	V_{CE}=-5V, Ic=-200μA, f=1KHz, R_G=2KΩ		2	10	dB

CLASSIFICATION OF h_{FE}

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

TYPICAL CHARACTERISTICS

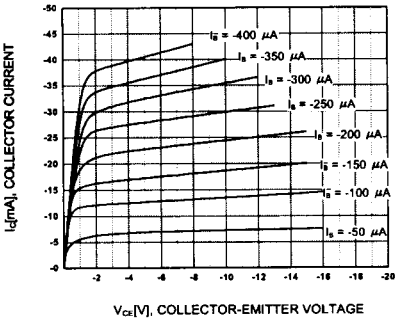


Figure 1. Static Characteristic

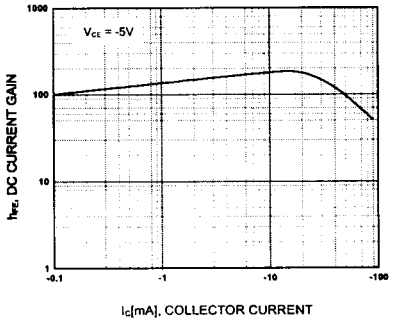


Figure 2. DC current Gain

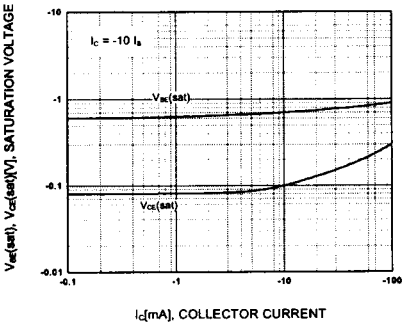


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

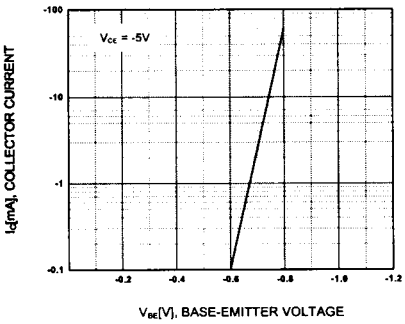


Figure 4. Base-Emitter On Voltage

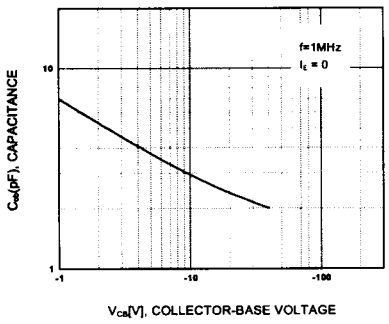


Figure 5. Collector Output Capacitance

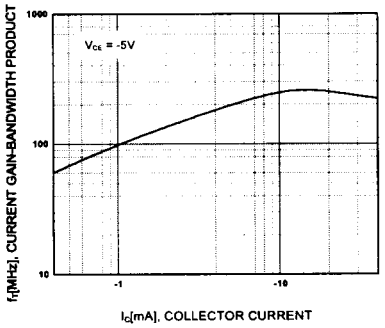


Figure 6. Current Gain Bandwidth Product