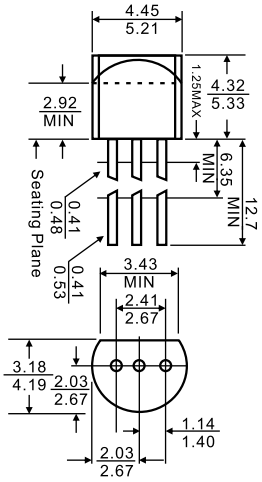
BC327/328(PNP)

TO-92 Bipolar Transistors

1. COLLECTOR
2. BASE
3. EMITTER

TO-92



Dimensions in inches and (millimeters)

Features

✧ **Power dissipation**

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage	**BC327** **BC328**	-50 -30	V
V_{CEO}	Collector-Emitter Voltage	**BC327** **BC328**	-45 -25	V
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current -Continuous		-800	mA
P_C	Collector Power Dissipation		625	mW
T_j	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage **BC327** **BC328**	V_{CBO}	I_C= -100uA, I_E=0	 -50 -30			V
Collector-emitter breakdown voltage **BC327** **BC328**	V_{CEO}	I_C= -10mA , I_B=0	 -45 -25			V
Emitter-base breakdown voltage	V_{EBO}	I_E= -10uA, I_C=0	-5			V
Collector cut-off current **BC327** **BC328**	I_{CBO}	V_{CB}= -45 V , I_E=0 V_{CB}= -25V , I_E=0			-0.1 -0.1	uA
Collector cut-off current **BC327** **BC328**	I_{CEO}	V_{CE}= -40 V , I_B=0 V_{CE}= -20 V , I_B=0			-0.2 -0.2	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -4 V , I_C=0			-0.1	uA
DC current gain	$h_{FE(1)}$	V_{CE}=-1 V, I_C= -100mA	100		630	
	$h_{FE(2)}$	V_{CE}=-1 V, I_C= -300mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B= -50mA			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= -500mA, I_B=-50mA			-1.2	V
Base-emitter voltage	V_{BE}	V_{CE}=-1 V, I_C= -300mA			-1.2	V
Transition frequency	f_T	V_{CE}= -5V, I_C= -10mA f = 100MHz	260			MHz
Collector Output Capacitance	Cob	V_{CB}=-10V,I_E=0 f=1MHZ		12		pF

CLASSIFICATION OF h_{FE}

Rank	16	25	40
Range	100-250	160-400	250-630

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Typical Characteristics

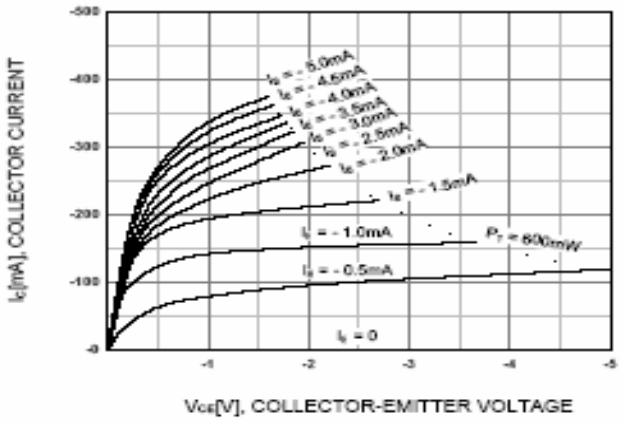

Figure 1. Static Characteristic

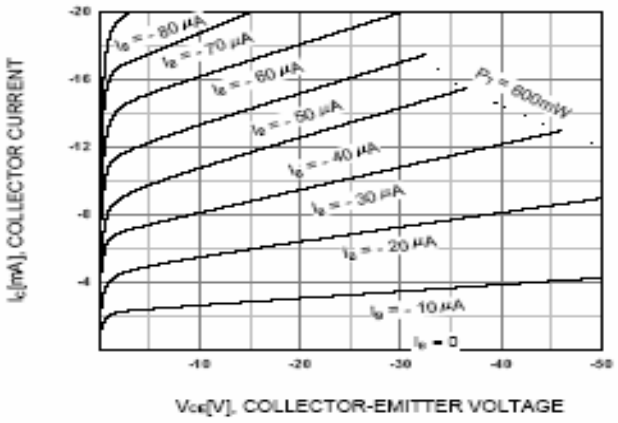

Figure 2. Static Characteristic

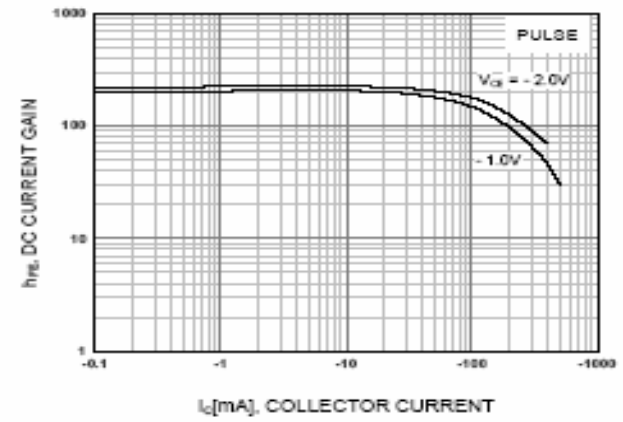

Figure 3. DC current Gain

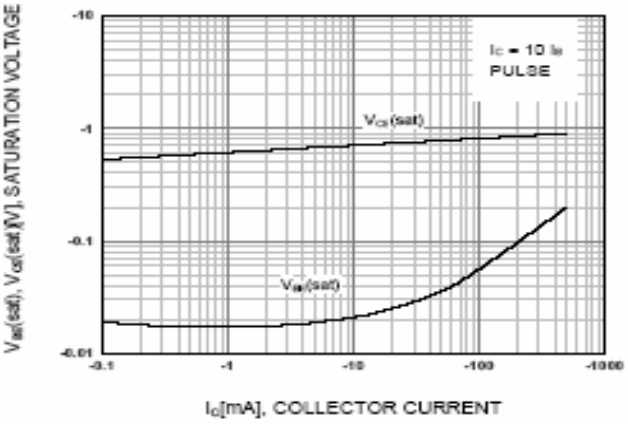

Figure 4. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

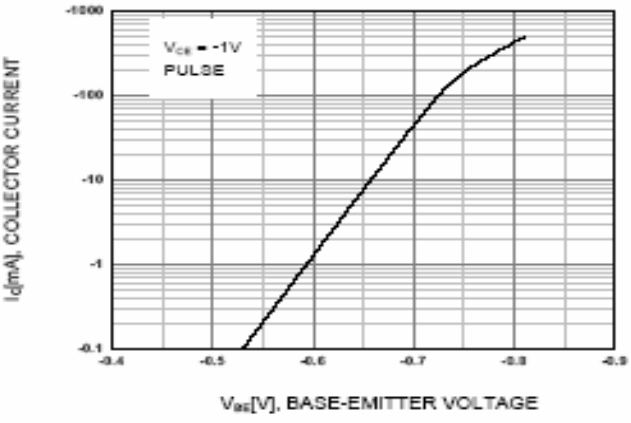

Figure 5. Base-Emitter On Voltage

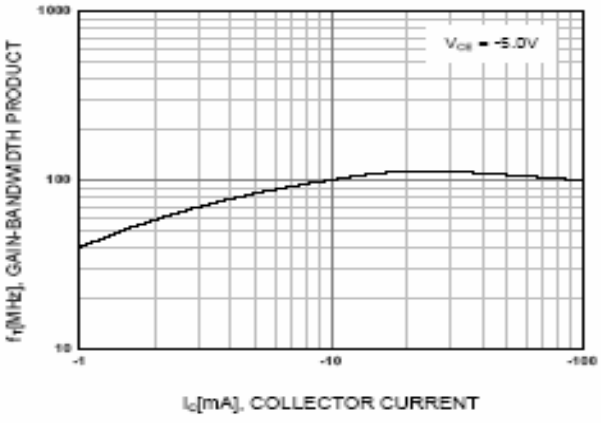

Figure 6. Gain Bandwidth Product

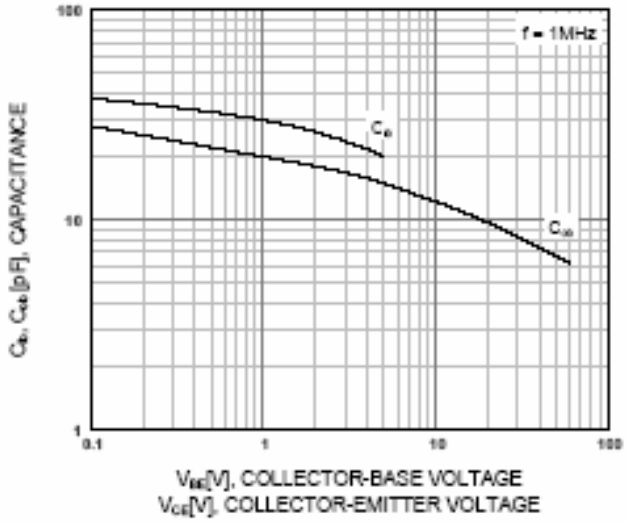

Figure 7. Input and Output Capacitance vs. Reverse Voltage

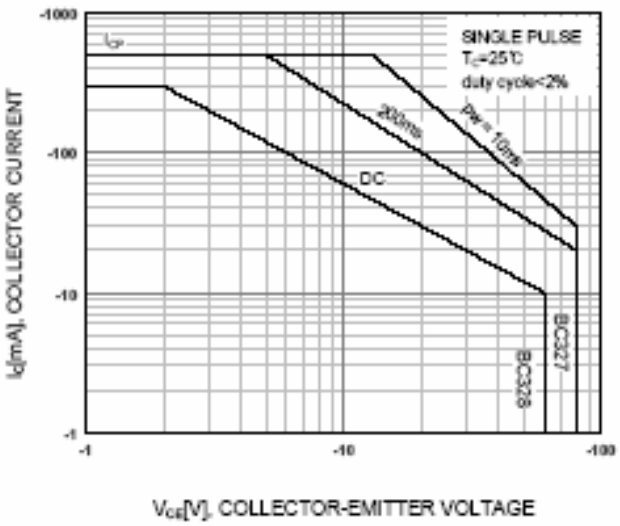

Figure 8. Safe Operating Area