



POWER SKY (H.K.) LTD.

TO-92 Plastic-Encapsulate Transistors

BC327/ BC328 TRANSISTOR (PNP)

FEATURES

Power dissipation

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

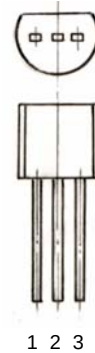
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage BC327	-50	V
	BC328	-30	
V_{CEO}	Collector-Emitter Voltage BC327	-45	V
	BC328	-25	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-800	mA
P_C	Collector Power Dissipation	625	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$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

TO-92

1. COLLECTOR

2.BASE

3. EMITTER



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

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

CLASSIFICATION OF h_{FE}

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

Typical Characteristics

BC327,328

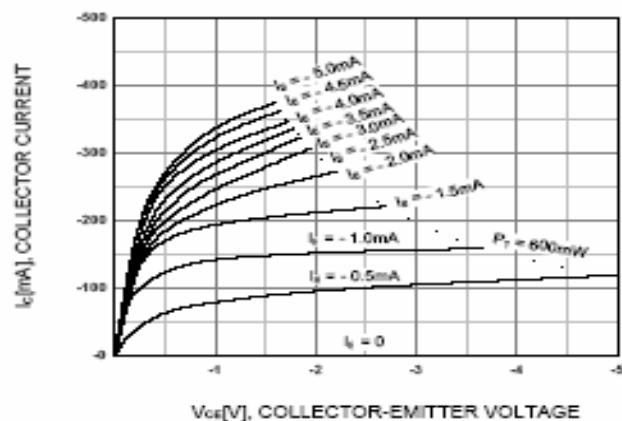


Figure 1. Static Characteristic

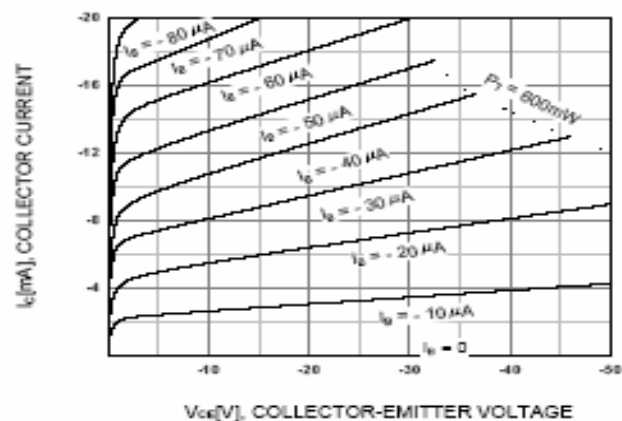


Figure 2. Static Characteristic

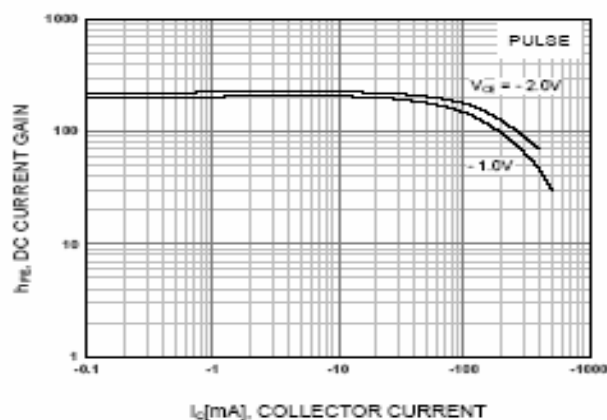


Figure 3. DC current Gain

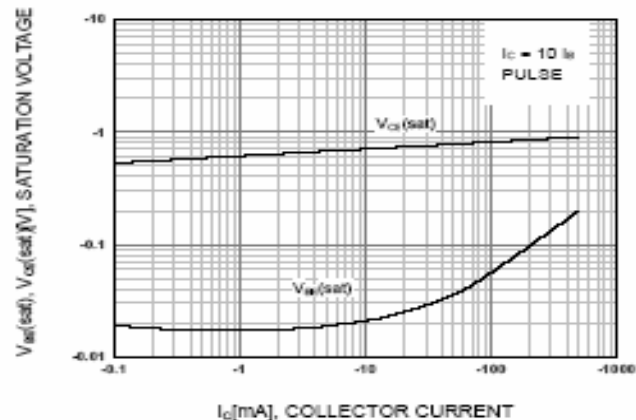


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

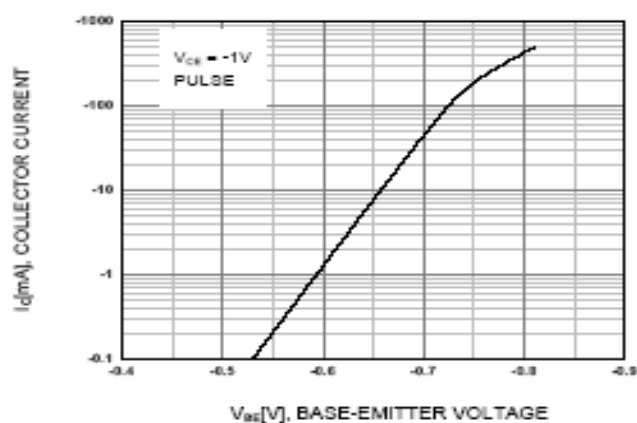


Figure 5. Base-Emitter On Voltage

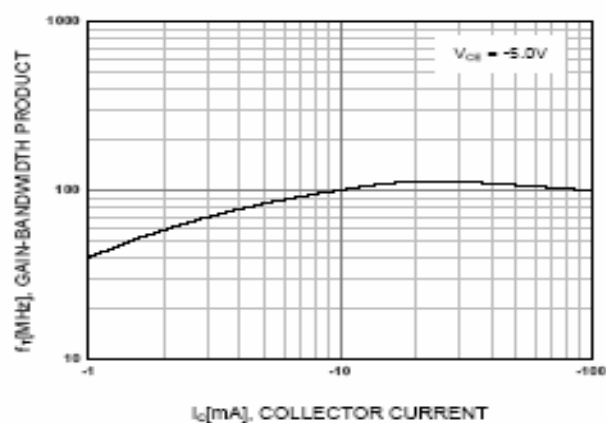


Figure 6. Gain Bandwidth Product

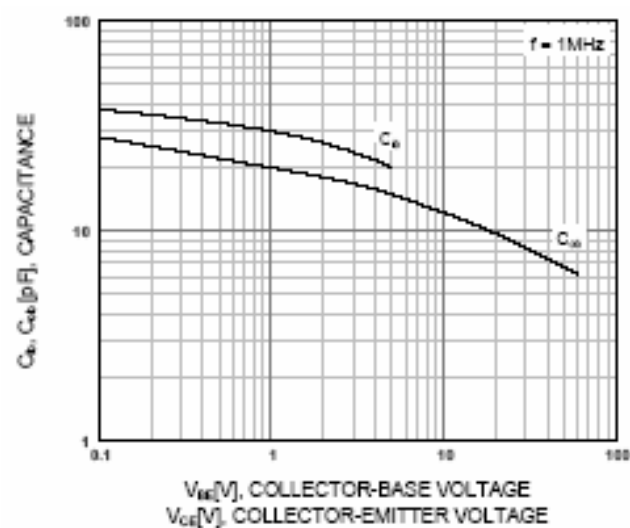


Figure 7. Input and Output Capacitance vs. Reverse Voltage

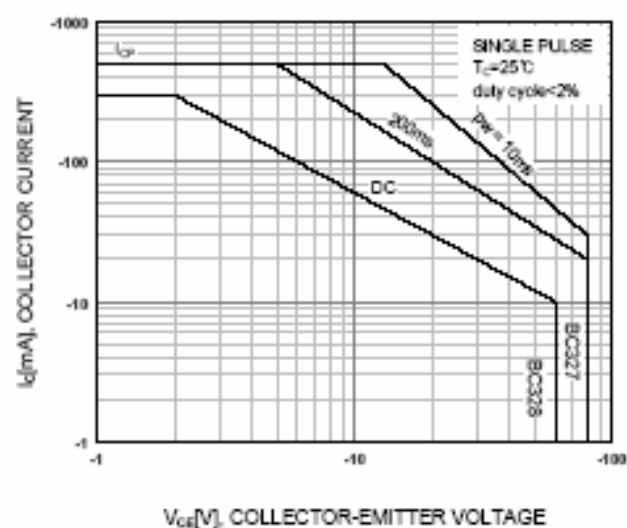


Figure 8. Safe Operating Area