

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

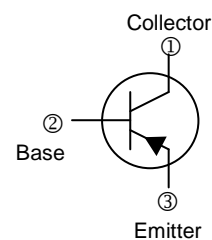
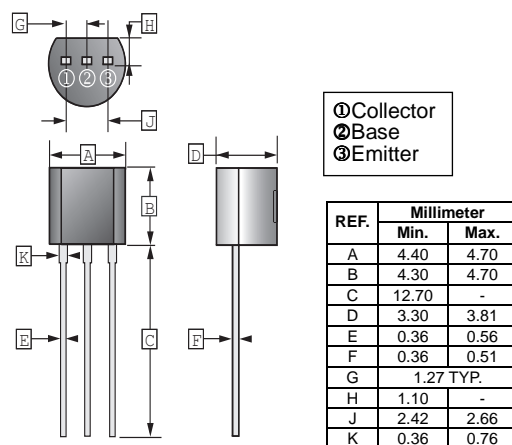
**FEATURE**

- Power Dissipation

**CLASSIFICATION OF  $h_{FE}$  (1)**

Product-Rank	BC327-16	BC327-25	BC327-40
Product-Rank	BC328-16	BC328-25	BC328-40
Range	100~250	160~400	250~630

**TO-92**



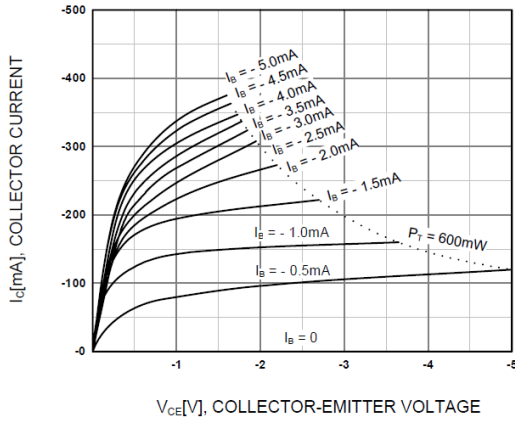
**ABSOLUTE MAXIMUM RATINGS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	BC327	-50
		BC328	-30
Collector to Emitter Voltage	$V_{CEO}$	BC327	-45
		BC328	-25
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current - Continuous	$I_C$	-800	mA
Collector Power Dissipation	$P_C$	625	mW
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

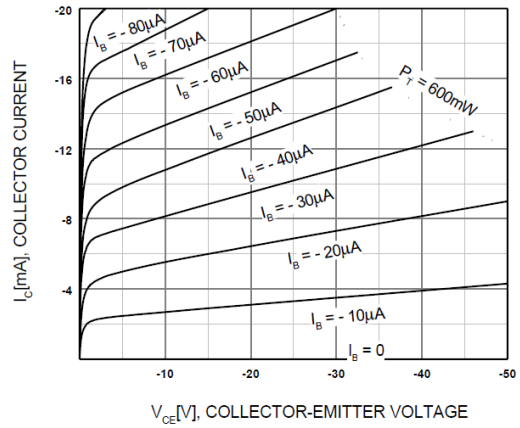
**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	BC327	-50	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
	BC328	-30	-	-		
Collector to Emitter Breakdown Voltage	BC327	-45	-	-	V	$I_C = -10\text{mA}, I_B = 0$
	BC328	-25	-	-		
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	BC327	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -45\text{V}, I_E = 0$
	BC328	-	-	-0.1		$V_{CB} = -25\text{V}, I_E = 0$
Collector Cut-Off Current	BC327	-	-	-0.2	$\mu\text{A}$	$V_{CE} = -40\text{V}, I_B = 0$
	BC328	-	-	-0.2		$V_{CE} = -20\text{V}, I_B = 0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -4\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	630		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$
	$h_{FE(2)}$	40	-	-		$V_{CE} = -1\text{V}, I_C = -300\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.7	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Base-Emitter Voltage	$V_{BE}$	-	-	-1.2	V	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$
Transition Frequency	$f_T$	260	-	-	MHz	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$
Collector Output Capacitance	$C_{ob}$	-	12	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

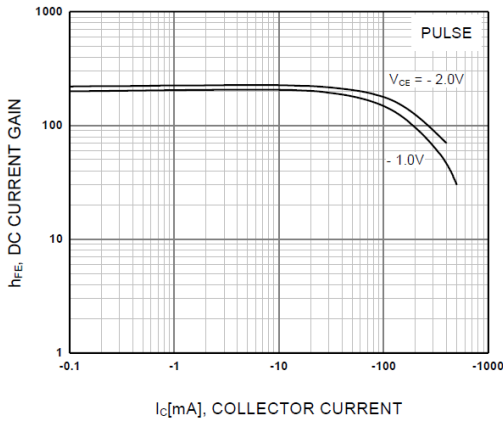
**CHARACTERISTIC CURVES**



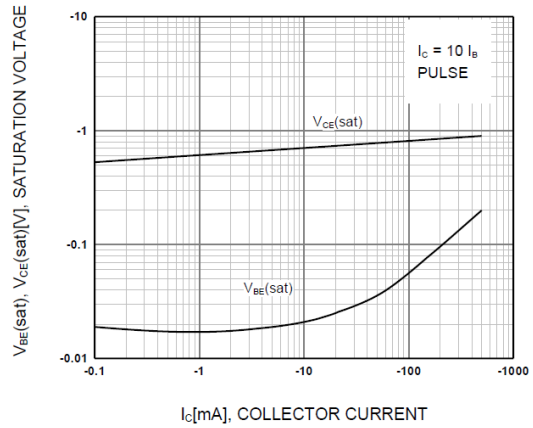
**Figure 1. Static Characteristic**



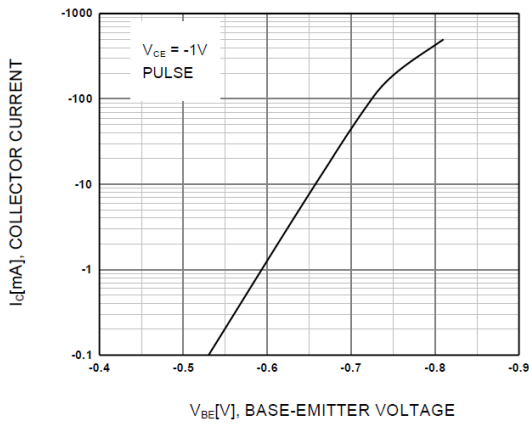
**Figure 2. Static Characteristic**



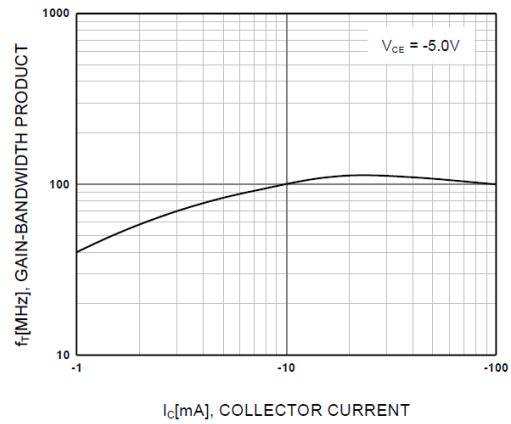
**Figure 3. DC current Gain**



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



**Figure 5. Base-Emitter On Voltage**



**Figure 6. Gain Bandwidth Product**