

# BC327...BC328

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications

These types are subdivided into three groups -16, -25 and -40, according to their DC current gain.



1. Collector 2. Base 3. Emitter  
TO-92 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	BC327	BC328	Unit
Collector Base Voltage	$-V_{CBO}$	50	30	V
Collector Emitter Voltage	$-V_{CEO}$	45	25	V
Emitter Base Voltage	$-V_{EBO}$	5		V
Collector Current	$-I_C$	800		mA
Peak Collector Current	$-I_{CM}$	1		A
Total Power Dissipation	$P_{tot}$	625		mW
Junction Temperature	$T_J$	150		$^\circ\text{C}$
Storage Temperature Range	$T_S$	- 55 to + 150		$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit		
DC Current Gain at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$ Current Gain Group	-16	$h_{FE}$	100	-	250	-	
		$h_{FE}$	160	-	400	-	
		$h_{FE}$	250	-	630	-	
	at $-V_{CE} = 1\text{ V}$ , $-I_C = 300\text{ mA}$	-16	$h_{FE}$	60	-	-	-
		-25	$h_{FE}$	100	-	-	-
		-40	$h_{FE}$	170	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 45\text{ V}$ BC327	$-I_{CBO}$	-	-	100	nA		
at $-V_{CB} = 25\text{ V}$ BC328		-	-	100			
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	BC327 BC328 $-V_{(BR)CBO}$	50 30	- -	- -	V		
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	BC327 BC328 $-V_{(BR)CEO}$	45 25	- -	- -	V		
Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V		
Collector Emitter Saturation Voltage at $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.7	V		
Base Emitter On Voltage at $-V_{CE} = 1\text{ V}$ , $-I_C = 300\text{ mA}$	$-V_{BE(on)}$	-	-	1.2	V		
Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 50\text{ MHz}$	$f_T$	-	100	-	MHz		
Collector Base Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{CBO}$	-	12	-	pF		



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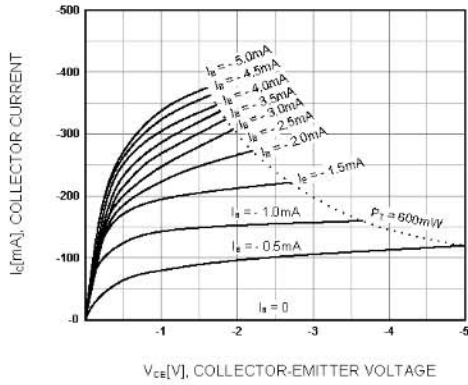


Figure 1. Static Characteristic

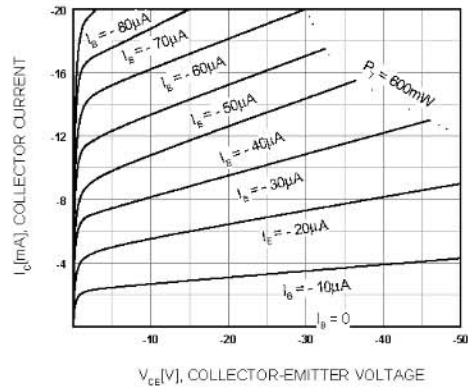


Figure 2. Static Characteristic

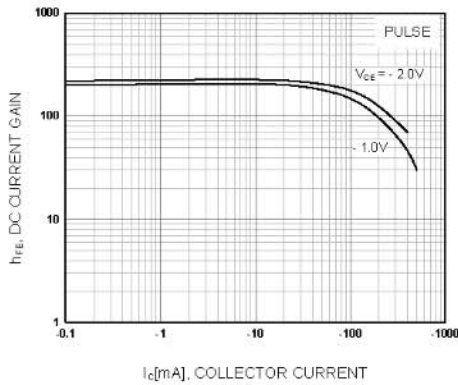


Figure 3. DC current Gain

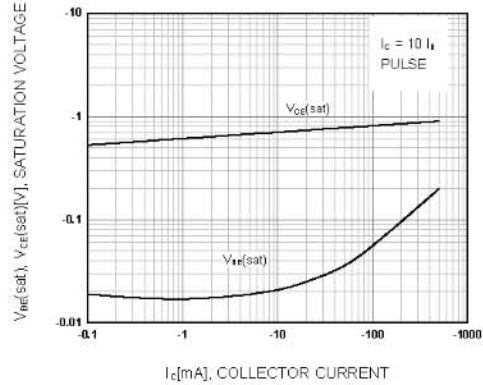


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

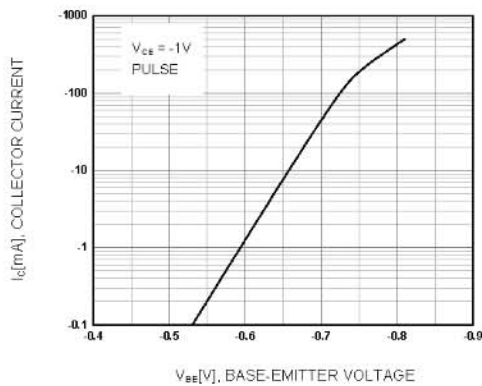


Figure 5. Base-Emitter On Voltage

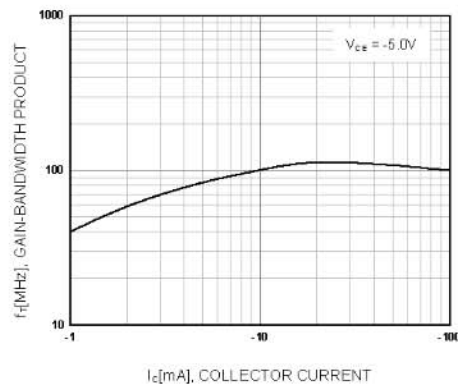


Figure 6. Gain Bandwidth Product





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