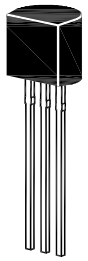
BC327…BC328

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 °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		°C
Storage Temperature Range	T_S	- 55 to + 150		°C

Characteristics at T_a = 25 °C

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

SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103 ISO 14001:2004 Certificate No. 7116 ISO 9001:2000 Certificate No. 0506098

Dated : 27/12/2007

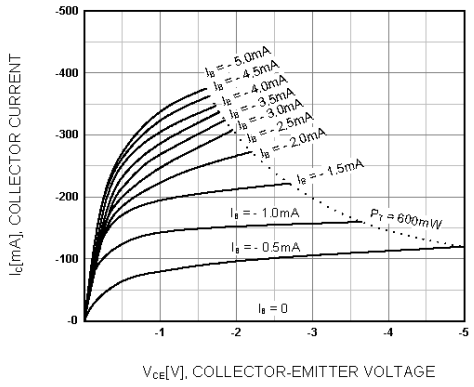


Figure 1. Static Characteristic

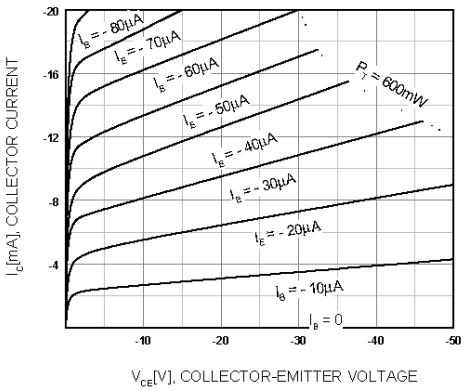


Figure 2. Static Characteristic

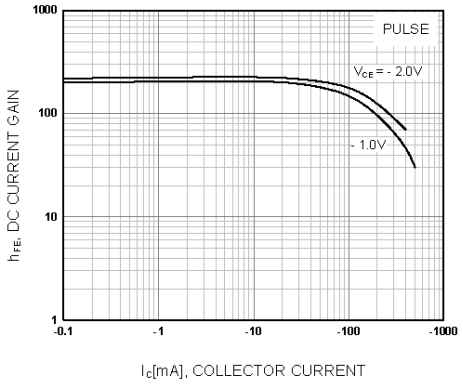


Figure 3. DC current Gain

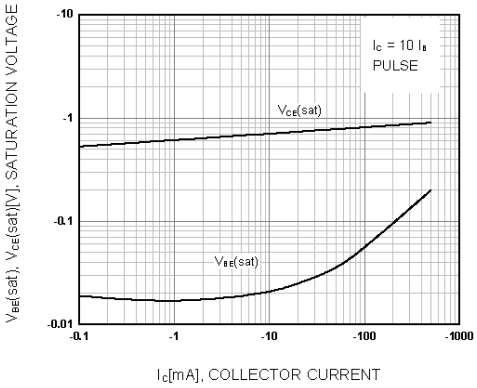


Figure 4. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

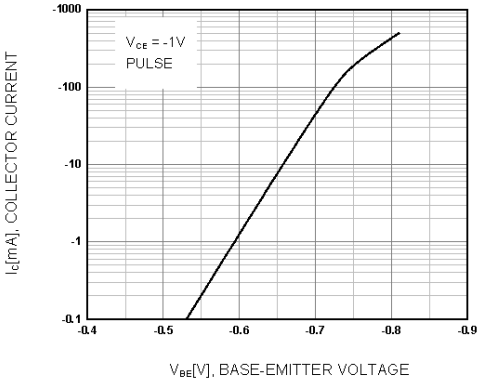


Figure 5. Base-Emitter On Voltage

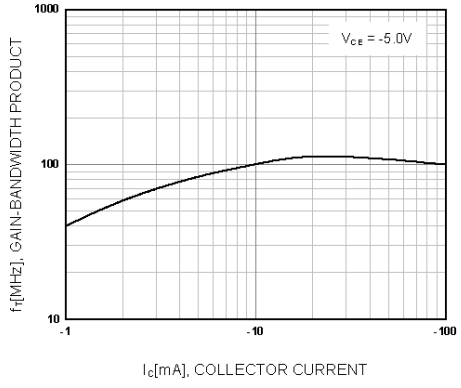


Figure 6. Gain Bandwidth Product