



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

BC550

NPN Silicon Epitaxial Planar Transistor

The transistor is subdivided into three groups A, B and C according to its current gain.

On special request, these transistors can be manufactured in different pin configurations.



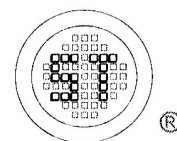
1. Collector 2. Base 3. Emitter
TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	50	V
Collector Emitter Voltage	V _{CEO}	45	V
Emitter Base Voltage	V _{EBO}	5	V
Collector Current	I _C	100	mA
Total Power Dissipation	P _{tot}	500	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} = 5 V, I _C = 2 mA Current Gain Group	A	h _{FE}	110	-	220	-
	B	h _{FE}	200	-	450	-
	C	h _{FE}	420	-	800	-
Collector Cutoff Current at V _{CB} = 30 V	I _{CBO}	-	-	15	nA	
Emitter Cutoff Current at V _{EB} = 5 V	I _{EBO}	-	-	100	nA	
Collector Base Breakdown Voltage at I _C = 10 μA	V _{(BR)CBO}	50	-	-	V	
Collector Emitter Breakdown Voltage at I _C = 10 mA	V _{(BR)CEO}	45	-	-	V	
Emitter Base Breakdown Voltage at I _E = 10 μA	V _{(BR)EBO}	5	-	-	V	
Collector Emitter Saturation Voltage at I _C = 10 mA, I _B = 0.5 mA at I _C = 100 mA, I _B = 5 mA	V _{CEsat}	-	-	0.25	V	
		-	-	0.6	V	
Base Emitter On Voltage at V _{CE} = 5 V, I _C = 2 mA	V _{BE(on)}	0.55	-	0.7	V	
Current Gain Bandwidth Product at V _{CE} = 5 V, I _C = 10 mA, f = 100 MHz	f _T	-	250	-	MHz	
Collector Base Capacitance at V _{CB} = 10 V, f = 1 MHz	C _{cbo}	-	2.5	-	pF	
Noise Figure at V _{CE} = 5 V, I _C = 200 μA, R _S = 10 KΩ, f = 1 KHz	NF	-	-	10	dB	



SEMTECH

Dated : 07/07/2007



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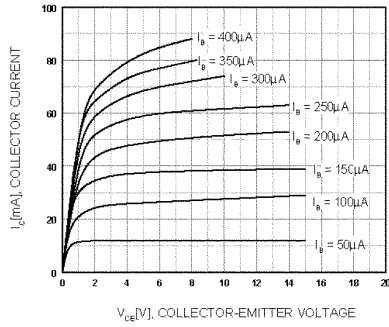


Figure 1. Static Characteristic

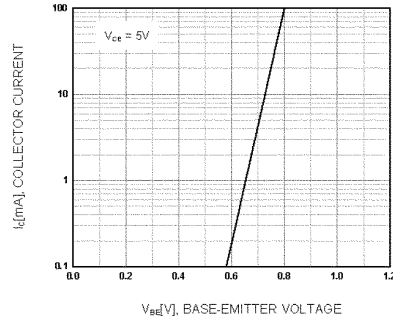


Figure 2. Transfer Characteristic

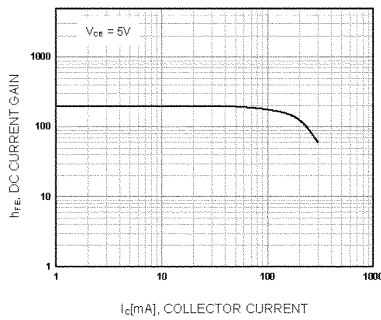


Figure 3. DC current Gain

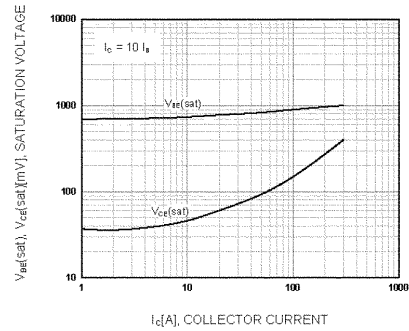


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

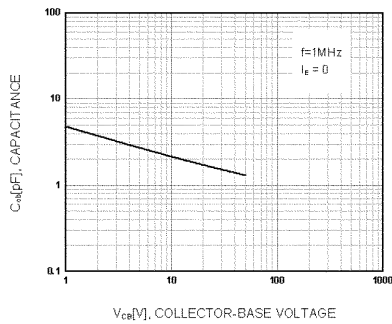


Figure 5. Output Capacitance

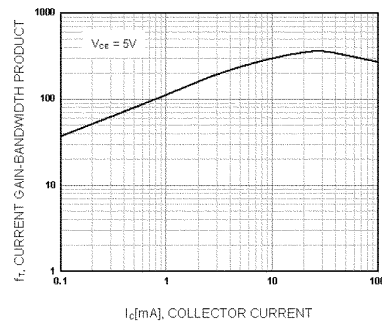
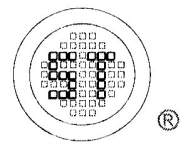


Figure 6. Current Gain Bandwidth Product



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