



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

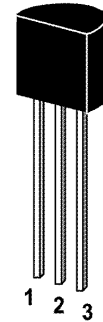
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

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

BC560C

PNP Silicon Low Noise Transistor

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



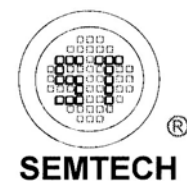
1. Collector 2. Base 3. Emitter

TO-92 Plastic Package

Weight approx. 0.19g

Absolute Maximum Ratings (Ta=25°C)

	Symbol	Value	Unit
Collector Emitter Voltage	$-V_{CEO}$	45	V
Collector Base Voltage	$-V_{CBO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Total Device Dissipation @ $T_A=25^\circ\text{C}$	P_{tot}	625	mW
Derate above 25°C		5	mW/°C
Total Device Dissipation @ $T_C=25^\circ\text{C}$	P_{tot}	1.5	W
Derate above 25°C		12	mW/°C
Operating and Storage Junction Temperature Range	T_J, T_S	-55 to +150	°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	°C/W



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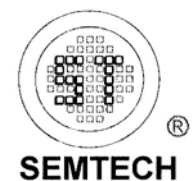
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BC560C**Characteristics (T_a=25 °C)**

	Symbol	Min.	Typ.	Max.	Unit
Small-Signal Current Gain at -V _{CE} =5V, -I _C =2mA, f=1kHz	h _{fe}	450	600	900	-
DC Current Gain at -V _{CE} =5V, -I _C =10μA	h _{FE}	100	270	-	-
at -V _{CE} =5V, -I _C =2mA	h _{FE}	380	500	800	-
Collector Saturation Voltage at -I _C =10mA, -I _B =0.5mA	-V _{CEsat}	-	75	250	mV
at -I _C =10mA, -I _B =see note 1	-V _{CEsat}	-	300	600	mV
at -I _C =100mA, -I _B =5mA, see note 2	-V _{CEsat}	-	250	-	mV
Base Saturation Voltage at -I _C =100mA, -I _B =5mA	-V _{BEsat}	-	1.1	-	V
Base Emitter On Voltage at -V _{CE} =5V, -I _C =10μA	-V _{BE(on)}	-	520	-	mV
at -V _{CE} =5V, -I _C =100μA	-V _{BE(on)}	-	550	-	mV
at -V _{CE} =5V, -I _C =2mA	-V _{BE(on)}	550	620	700	mV
Collector-Emitter Breakdown Voltage at -I _C =10mA	-V _{(BR)CEO}	45	-	-	V
Collector-Base Breakdown Voltage at -I _C =10μA	-V _{(BR)CBO}	50	-	-	V
Emitter-Base Breakdown Voltage at -I _E =10μA	-V _{(BR)EBO}	5	-	-	V
Collector Cutoff Current at -V _{CB} =30V	-I _{CBO}	-	-	15	nA
at -V _{CB} =30V, T _A =125°C	-I _{CBO}	-	-	5	μA
Emitter Cutoff Current at -V _{EB} =4V	-I _{EBO}	-	-	15	nA
Current-Gain-Bandwidth Product at -V _{CE} =5V, -I _C =10mA, f=100MHz	f _T	-	250	-	MHz
Collector Base Capacitance at -V _{CB} =10V, f=1MHz	C _{cbo}	-	2.5	-	pF
Noise Figure at -V _{CE} =5V, -I _C =200μA, R _S =2.0kΩ, f=1kHz	NF ₁	-	0.5	2	dB
at -V _{CE} =5V, -I _C =200μA, R _S =100kΩ, f=1kHz, Δf=200kHz	NF ₂	-	-	10	dB

Notes: 1. I_B is value for which -I_C=11mA at -V_{CE}=1.0V.

2. Pulse test=300μs-Duty cycle=2%.





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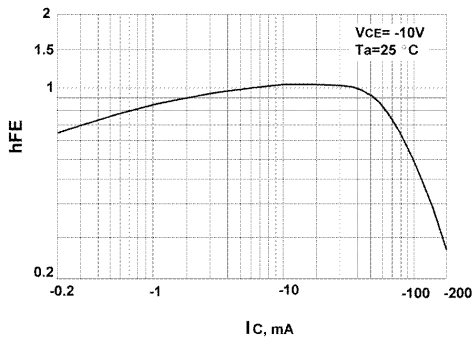
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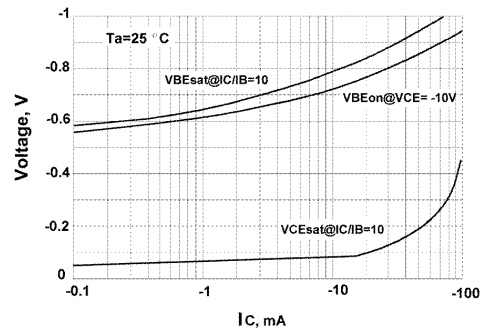
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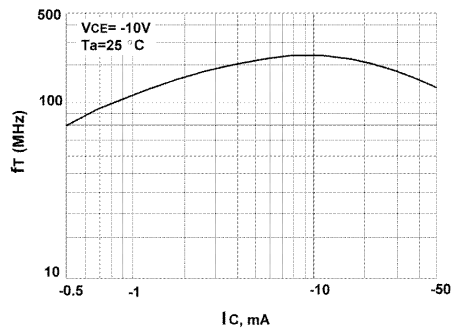
Normalized DC current gain



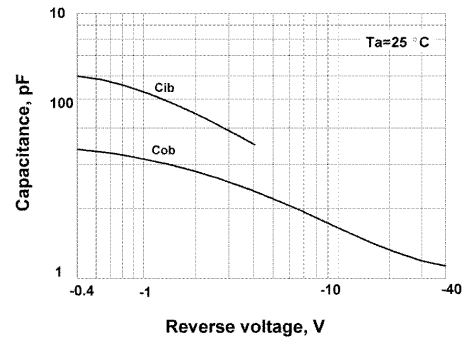
"Saturation" and "on" voltages



Current gain - Bandwidth product



Capacitance



Base spreading resistance

