



Micro Commercial Components

Micro Commercial Components  
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**BC808-16**  
**BC808-25**  
**BC808-40**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Capable of 0.3Watts of Power Dissipation.
- Collector-current 0.8A
- Operating and storage junction temperature range: -65°C to +150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

## Mechanical Data

- Case: SOT-23 Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.008 grams (approx.)
- Device Marking: BC808-16 5E  
BC808-25 5F  
BC808-40 5G

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=-10\text{mAdc}$ , $I_E=0$ )	-25	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=-100\text{uAdc}$ , $I_E=0$ )	-30	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ( $I_E=-100\text{uAdc}$ , $I_C=0$ )	-5.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=-25\text{Vdc}$ , $I_E=0$ )	---	-0.1	$\mu\text{Adc}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=-4.0\text{Vdc}$ , $I_C=0$ )	---	-0.1	$\mu\text{Adc}$

### ON CHARACTERISTICS

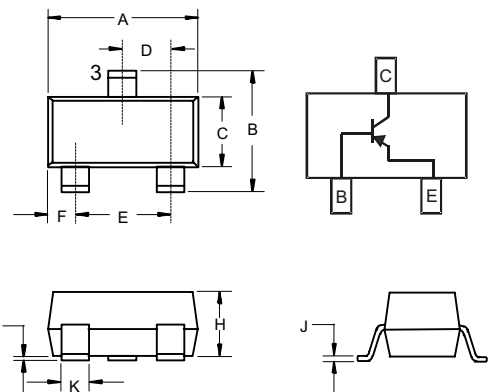
$h_{FE(1)}$	DC Current Gain ( $I_C=-100\text{mAdc}$ , $V_{CE}=-1.0\text{Vdc}$ ) BC808-16 BC808-25 BC808-40	100 160 250	250 400 630	---
$h_{FE(2)}$	DC Current Gain ( $I_C=-300\text{mAdc}$ , $V_{CE}=-1.0\text{Vdc}$ )	60	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=-500\text{mAdc}$ , $I_E=-50\text{mAdc}$ )	---	-0.7	Vdc
$V_{BE}$	Base-Emitter Voltage ( $V_{CE}=-1\text{Vdc}$ , $I_C=-300\text{mAdc}$ )	---	-1.2	Vdc

### SMALL SIGNAL CHARACTERISTICS

$f_T$	Transition frequency ( $V_{CE}=-5.0\text{V}$ , $f=50\text{MHz}$ , $I_C=-10\text{mA}$ )	100	---	MHz
$C_{ob}$	Collector output capacitance ( $V_{CE}=-5.0\text{V}$ , $f=50\text{MHz}$ , $I_C=-10\text{mA}$ )	12	---	pF

## PNP Silicon General Purpose Transistors

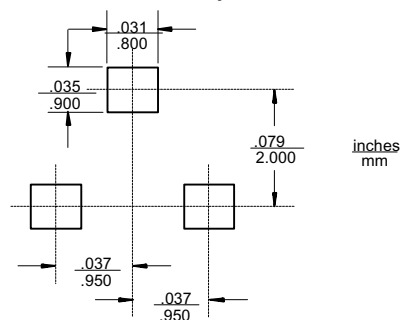
### SOT-23



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout



# BC808-16 thru BC808-40

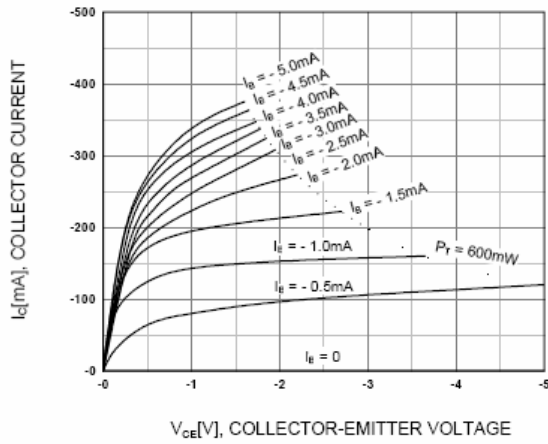


Figure 1. Static Characteristic

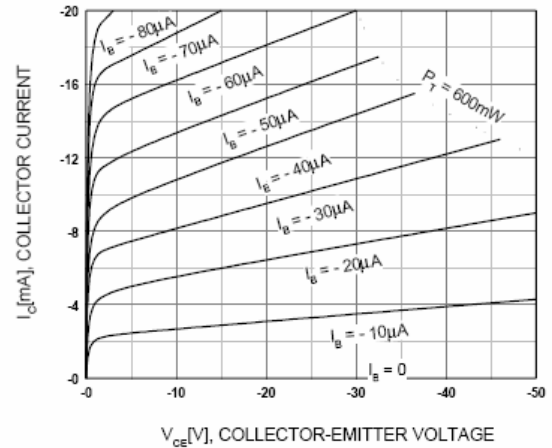


Figure 2. Static Characteristic

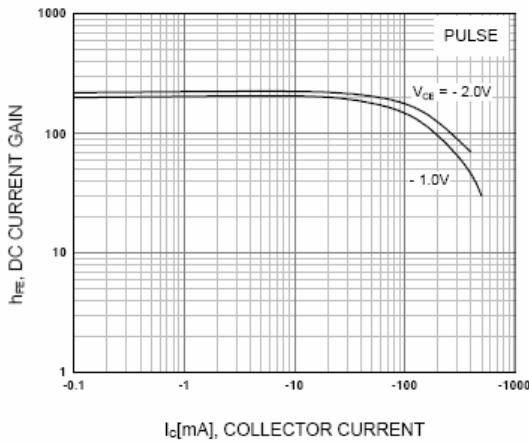


Figure 3. DC current Gain

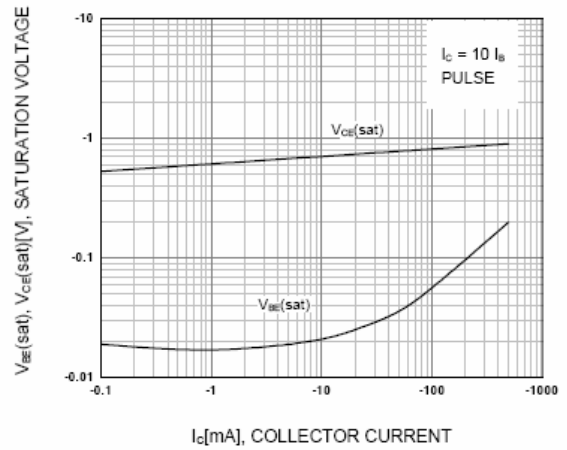


Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

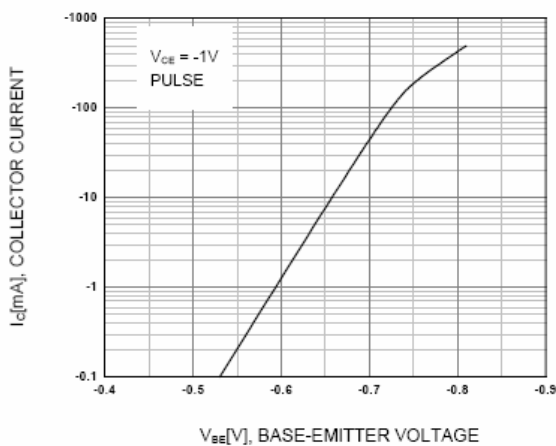


Figure 5. Base-Emitter On Voltage

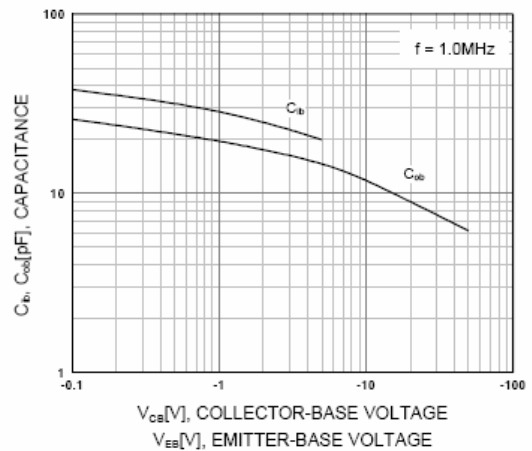


Figure 6. Input Output Capacitance



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### Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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