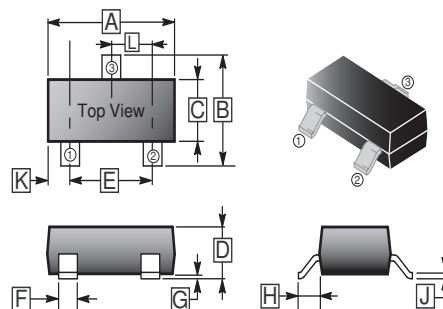


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURE

- Suitable for AF-Driver stages and low power output stages
- Complementary to BC818

## SOT-23



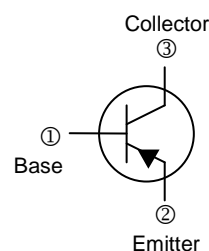
## CLASSIFICATION OF $h_{FE(1)}$

Product-Rank	BC808-16	BC808-25	BC808-40
Range	100~250	160~400	250~630
Marking Code	5E	5F	5G

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



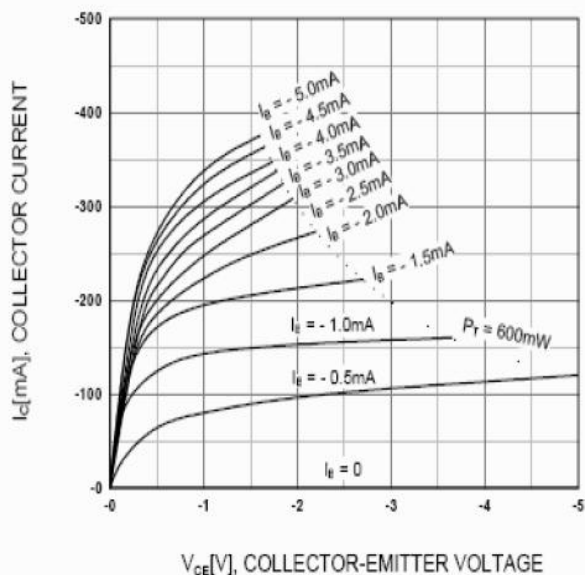
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	-30	V
Collector to Emitter Voltage	$V_{CEO}$	-25	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current - Continuous	$I_C$	-800	mA
Collector Power Dissipation	$P_C$	300	mW
Junction, Storage Temperature	$T_J, T_{STG}$	150, -65 ~ 150	$^\circ\text{C}$

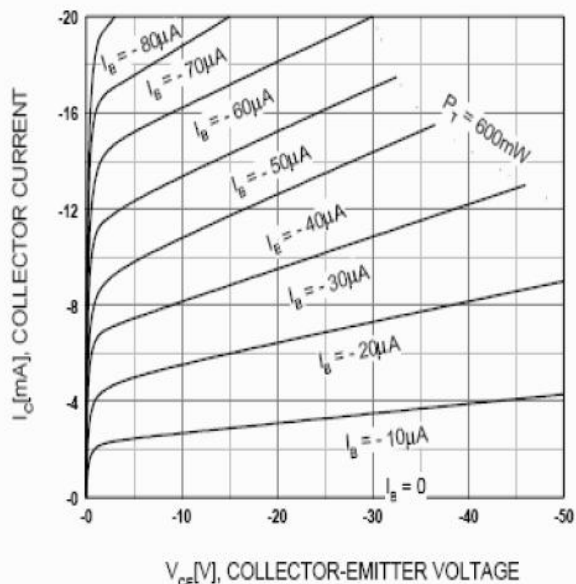
## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	-30	-	-	V	$I_C = -100\mu\text{A}, I_E = 0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	-25	-	-	V	$I_C = -10\text{mA}, I_B = 0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -100\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -25\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -4\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	630		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$
	$h_{FE(2)}$	60	-	-		$V_{CE} = -1\text{V}, I_C = -300\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.7	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Base to Emitter Saturation Voltage	$V_{BE}$	-	-	-1.2	V	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$
Transition Frequency	$f_T$	-	100	-	MHz	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 50\text{MHz}$
Collector output capacitance	$C_{ob}$	-	12	-	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

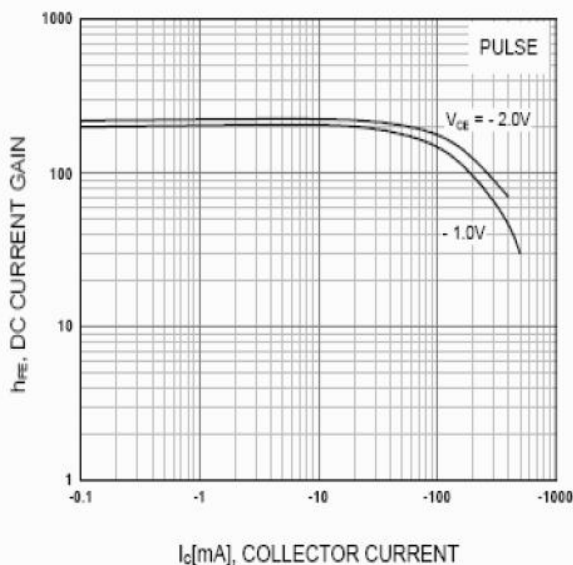
**CHARACTERISTIC CURVES**



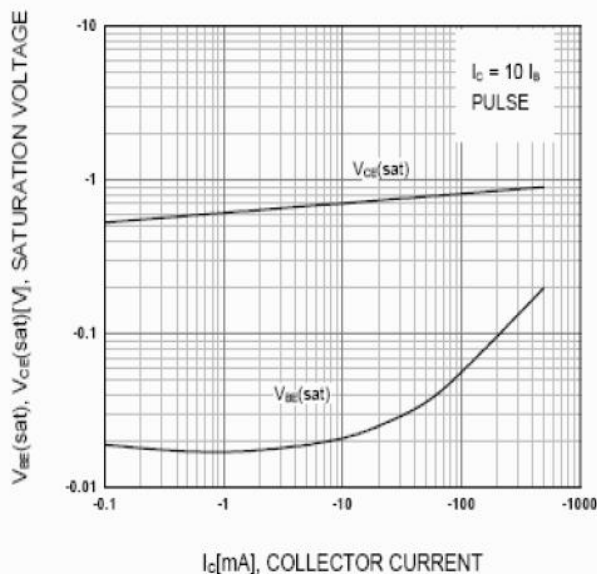
**Figure 1. Static Characteristic**



**Figure 2. Static Characteristic**

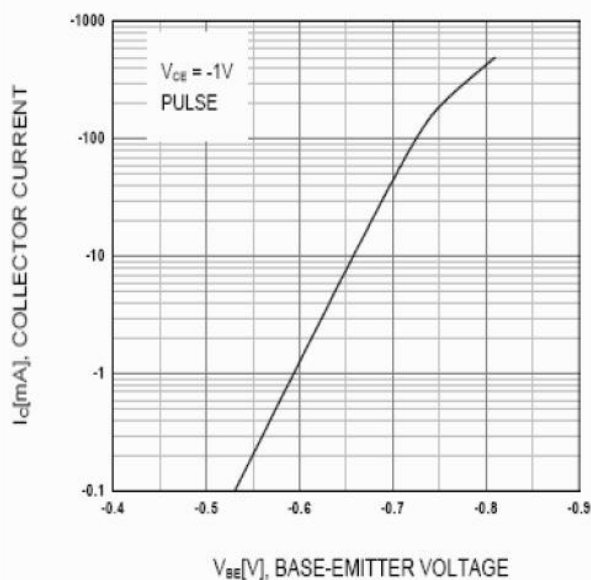


**Figure 3. DC current Gain**

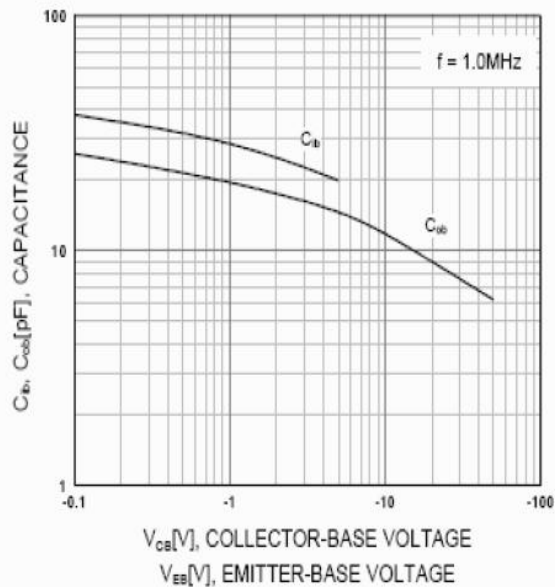


**Figure 4. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**

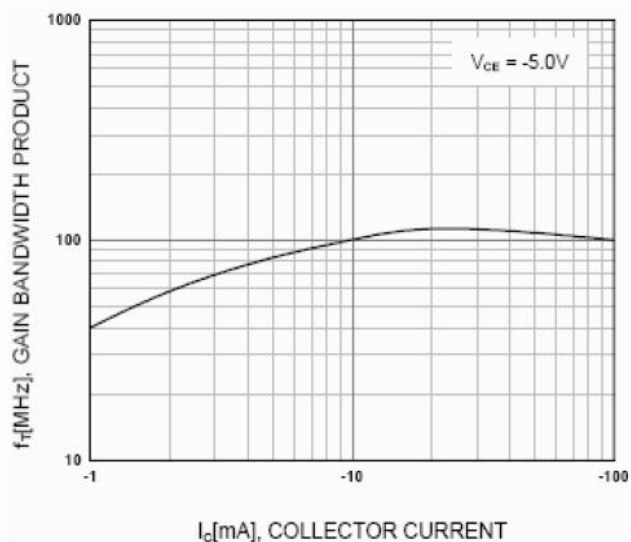
**CHARACTERISTIC CURVES**



**Figure 5. Base-Emitter On Voltage**



**Figure 6. Input Output Capacitance**



**Figure 7. Current Gain Bandwidth Product**