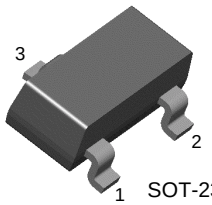
FAIRCHILD
SEMICONDUCTOR®

BC807/BC808

Switching and Amplifier Applications

- Suitable for AF-Driver stages and low power output stages
- Complement to BC817/BC818



SOT-23

1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage : BC807 : BC808	 -50 -30	 V V
V_{CEO}	Collector-Emitter Voltage : BC807 : BC808	 -45 -25	 V V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-800	mA
P_C	Collector Power Dissipation	-310	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage : BC807 : BC808	I_C= -10mA, I_B=0	 -45 -25			 V V
BV_{CES}	Collector-Emitter Breakdown Voltage : BC807 : BC808	I_C= -0.1mA, V_{BE}=0	 -50 -30			 V V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E= -0.1mA, I_C=0	-5			V
I_{CES}	Collector Cut-off Current	V_{CE}= -25V, V_{BE}=0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -4V, I_C=0			-100	nA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE}= -1V, I_C= -100mA V_{CE}= -1V, I_C= -300mA	100 60		630	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C= -500mA, I_B= -50mA			-0.7	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}= -1V, I_C= -300mA			-1.2	V
f_T	Current Gain Bandwidth Product	V_{CE}= -5V, I_C= -10mA f=50MHz		100		MHz
C_{ob}	Output Capacitance	V_{CB}= -10V, f=1MHz			12	pF

h_{FE} Classification

Classification	16	25	40
h_{FE1}	100 ~ 250	160 ~ 400	250 ~ 630
h_{FE2}	60-	100-	170-

Marking Code

Type	807-16	807-25	807-40	808-16	808-25	808-40
Marking	9FA	9FB	9FC	9GA	9GB	9GC

Typical Characteristics

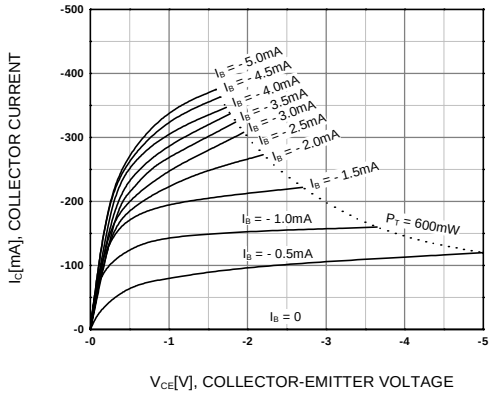


Figure 1. Static Characteristic

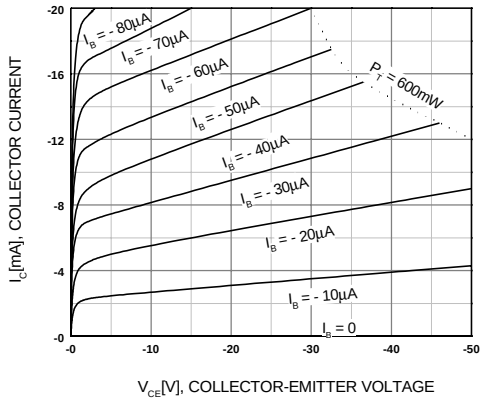


Figure 2. Static Characteristic

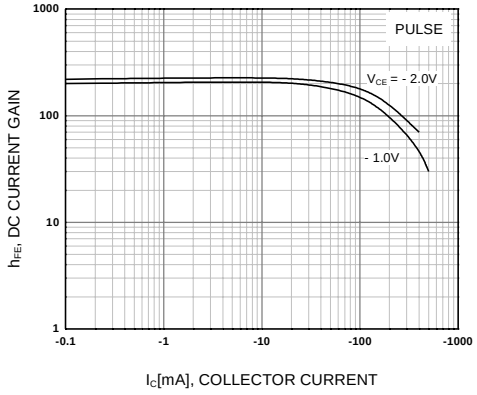


Figure 3. DC current Gain

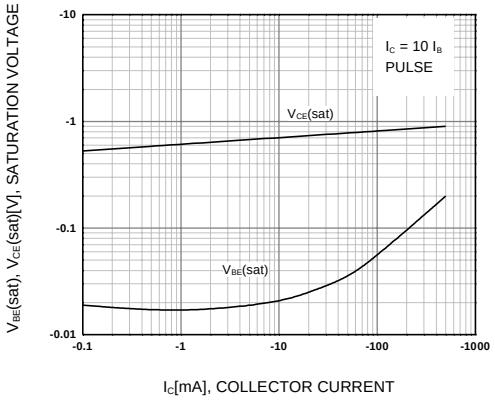


Figure 4. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

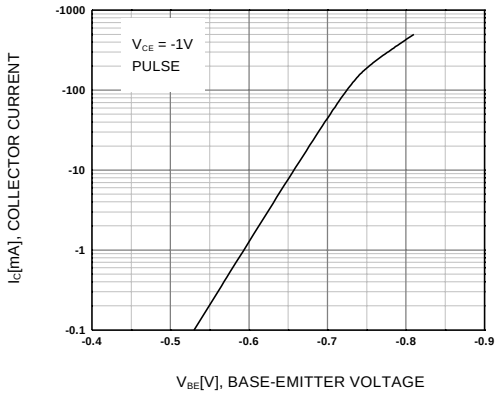


Figure 5. Base-Emitter On Voltage

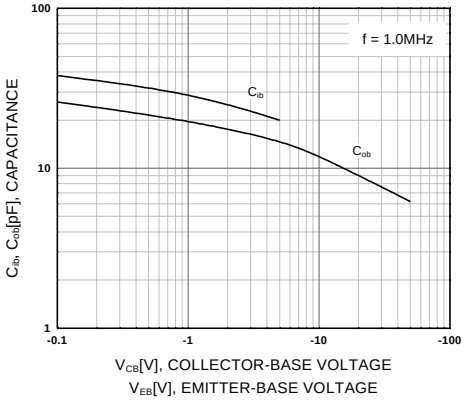


Figure 6. Input Output Capacitance

Typical Characteristics (Continued)

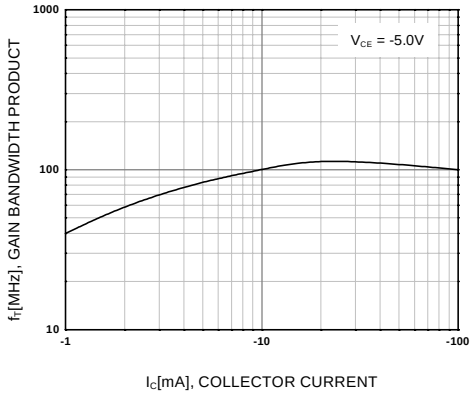
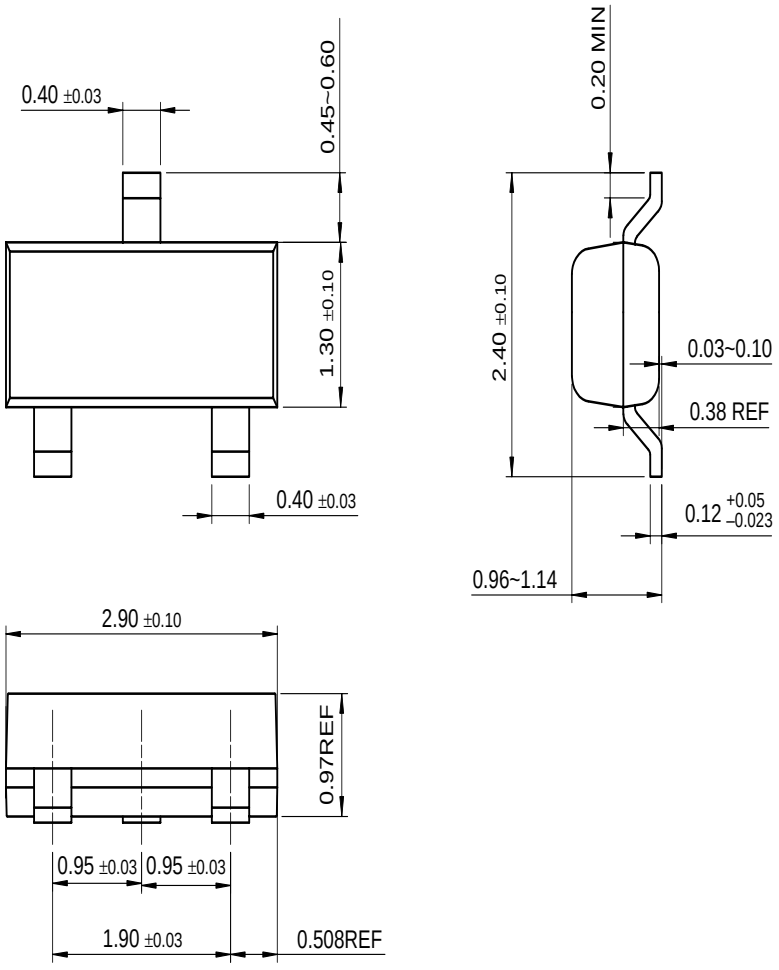


Figure 7. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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PRODUCT STATUS DEFINITIONS

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