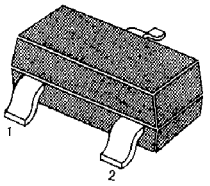
BC807/BC808 PNP EPITAXIAL SILICON TRANSISTOR

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

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

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

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= -10mA, I_B=0				
: BC807			-45			V
: BC808			-25			V
Collector-Emitter Breakdown Voltage	BV_{CES}	I_C= -0.1mA, I_B=0				
: BC807			-50			V
: BC808			-30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E= -0.1mA, I_C=0	-5			V
Collector Cut-off Current	I_{CES}	V_{CE}= -25V, I_B=0			-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}= -4V, I_C=0			-100	nA
DC Current Gain	$h_{FE}1$	V_{CE}= -1V, I_C= -100mA	100		630	
	$h_{FE}2$	V_{CE}= -1V, I_C= -300mA	60			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C= -500mA, I_B= -50mA			-0.7	V
Base-Emitter On Voltage	V_{BE} (on)	V_{CE}= -1V, I_C= -300mA			-1.2	V
Current Gain Bandwidth Product	f_T	V_{CE}= -5V, I_C= -10mA f=50MHz		100		MHz
Collector-Base Capacitance	C_{CBO}	V_{CB}= -10V, f=1MHz			12	pF

h_{FE} CLASSIFICATION

Classification	16	25	40
$h_{FE}1$	100-250	160-400	250-630
$h_{FE}2$	60-	100-	170-

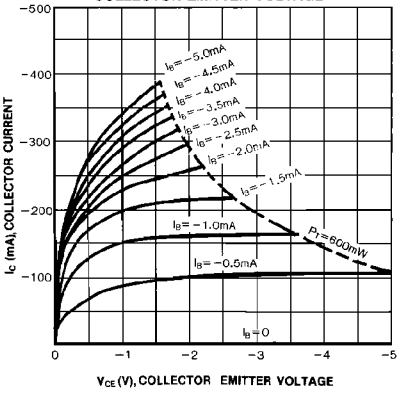
MARKING CODE

TYPE	807-16	807-25	807-40	808-16	808-25	808-40
MARKING	9FA	9FB	9FC	9GA	9GB	9GC

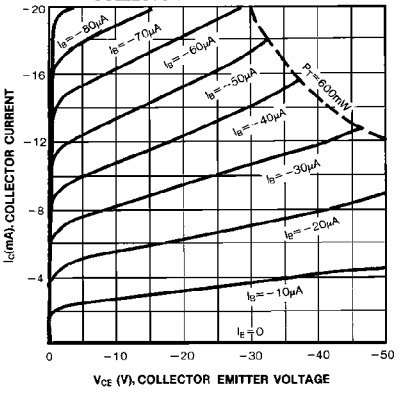
Rev. B

FAIRCHILD SEMICONDUCTOR TM

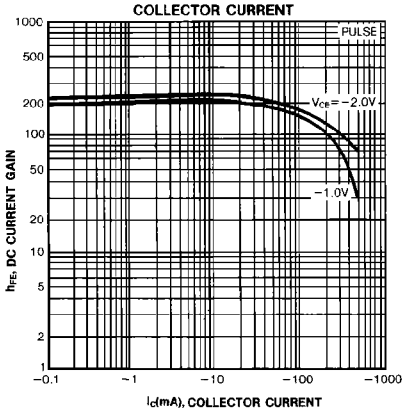
COLLECTOR CURRENT vs.
COLLECTOR EMITTER VOLTAGE



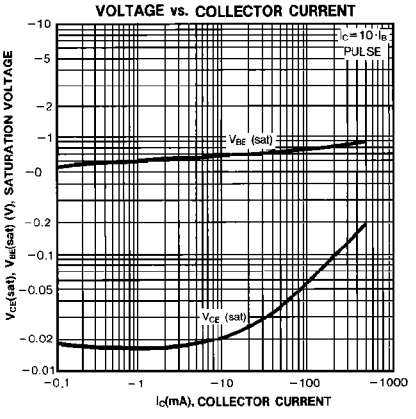
COLLECTOR CURRENT vs.
COLLECTOR EMITTER VOLTAGE



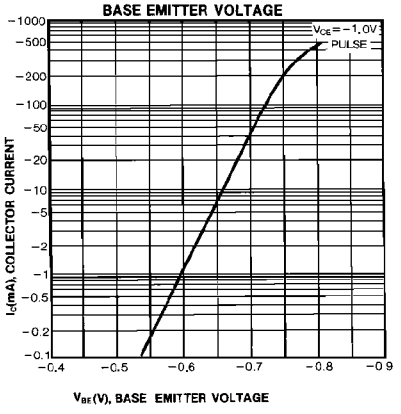
DC CURRENT GAIN vs.
COLLECTOR CURRENT



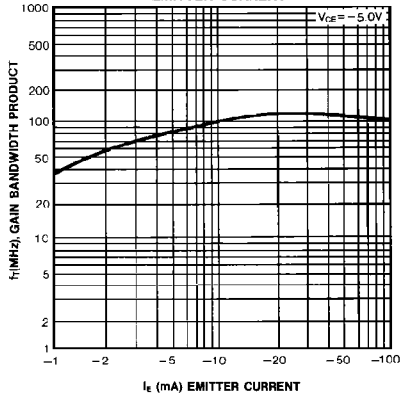
BASE AND COLLECTOR SATURATION
VOLTAGE vs. COLLECTOR CURRENT



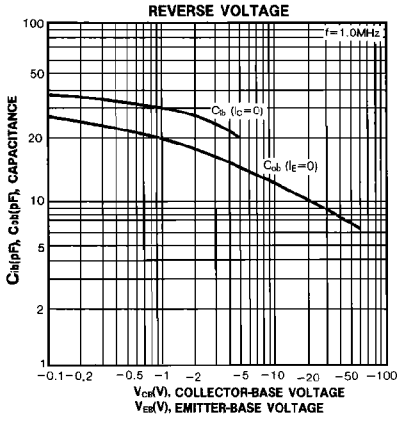
COLLECTOR CURRENT vs.
BASE EMITTER VOLTAGE



GAIN BANDWIDTH PRODUCT vs.
EMITTER CURRENT



INPUT AND OUTPUT CAPACITANCE vs.
REVERSE VOLTAGE



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