



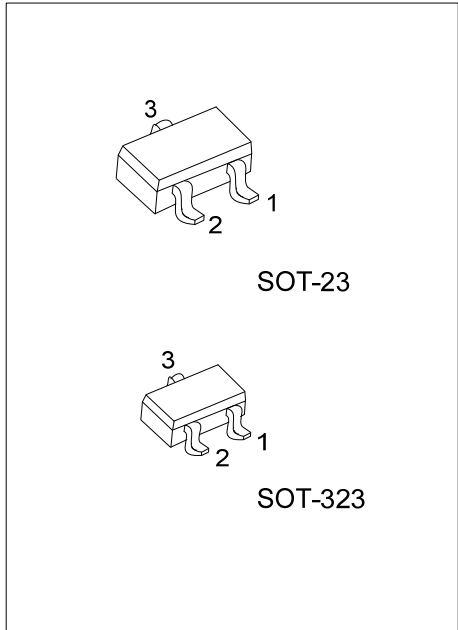
# BC807/BC808

## PNP SILICON TRANSISTOR

### SWITCHING AND AMPLIFIER APPLICATIONS

#### FEATURES

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



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BC807L-x-AE3-R	BC807G-x-AE3-R	SOT-23	E	B	C	Tape Reel
BC808L-x-AE3-R	BC808G-x-AE3-R	SOT-23	E	B	C	Tape Reel
BC807L-x-AL3-R	BC807G-x-AL3-R	SOT-323	E	B	C	Tape Reel
BC808L-x-AL3-R	BC808G-x-AL3-R	SOT-323	E	B	C	Tape Reel

<p>BC807L-x-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323 (3) x: refer to Classification of hFE (4) L: Lead Free, G: Halogen Free</p>
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#### MARKING

807-16	807-25	807-40
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>
808-16	808-25	808-40
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>

# BC807/BC808

## PNP SILICON TRANSISTOR

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

PARAMETER		SYMBOL	RATINGS	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	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

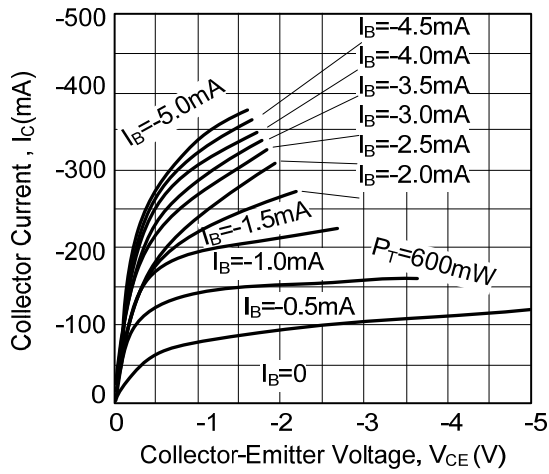
PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BC807	$BV_{CEO}$	$I_C=-10\text{mA}, I_B=0$	-45			V
	BC808			-25			V
Collector-Emitter Breakdown Voltage	BC807	$BV_{CES}$	$I_C=-0.1\text{mA}, V_{BE}=0$	-50			V
	BC808			-30			V
Emitter-Base Breakdown Voltage		$BV_{EBO}$	$I_E=-0.1\text{mA}, I_C=0$	-5			V
Collector Cut-OFF Current		$I_{CES}$	$V_{CE}=-25\text{V}, V_{BE}=0$			-100	nA
Emitter Cut-OFF Current		$I_{EBO}$	$V_{EB}=-4\text{V}, I_C=0$			-100	nA
DC Current Gain		$h_{FE1}$	$I_C=-100\text{mA}, V_{CE}=-1\text{V}$	100		630	
		$h_{FE2}$	$I_C=-300\text{mA}, V_{CE}=-1\text{V}$	60			
Collector-Emitter Saturation Voltage		$V_{CE(SAT)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.7	V
Base-Emitter ON Voltage		$V_{BE(ON)}$	$I_C=-300\text{mA}, V_{CE}=-1\text{V}$			-1.2	V
Current Gain Bandwidth Product		$f_T$	$V_{CE}=-5\text{V}, I_C=-10\text{mA}, f=50\text{MHz}$		100		MHz
Output Capacitance		$C_{ob}$	$V_{CB}=-10\text{V}, f=1\text{MHz}$			12	pF

### ■ CLASSIFICATION OF $h_{FE}$

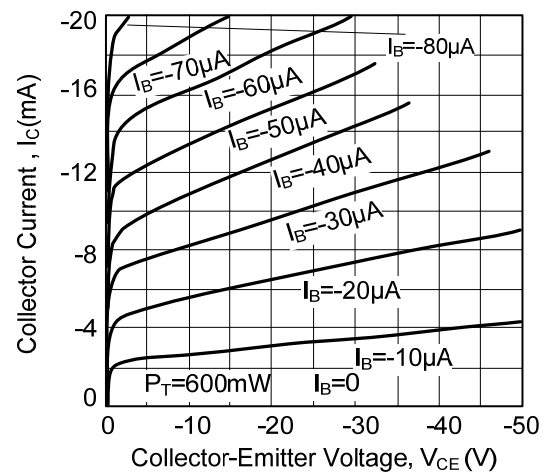
RANK	16	25	40
$h_{FE1}$	100-250	160-400	250-630
$h_{FE2}$	60-	100-	170-

## TYPICAL CHARACTERISTICS

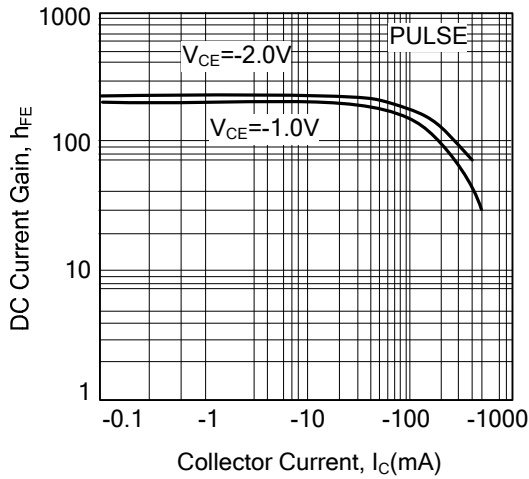
Static Characteristic



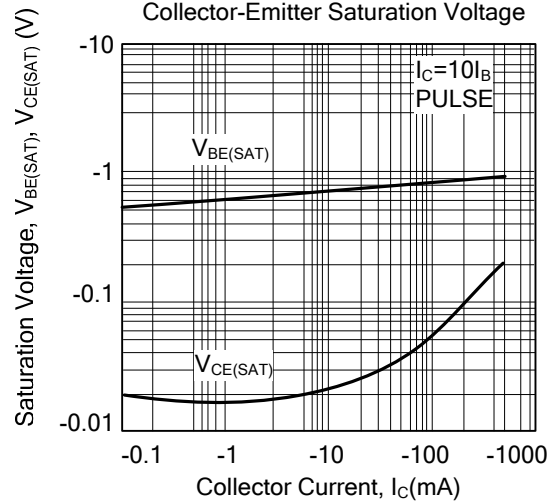
Static Characteristic



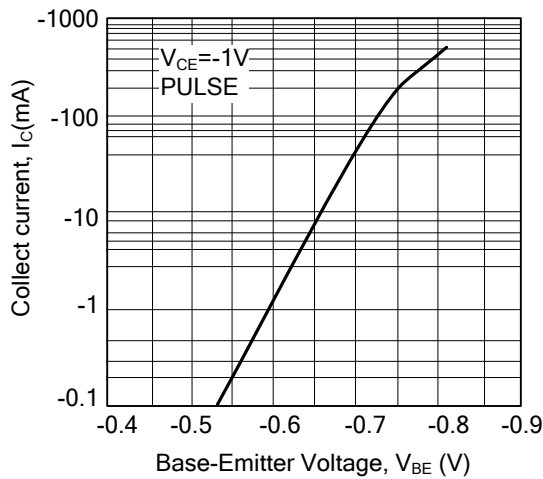
DC Current Gain



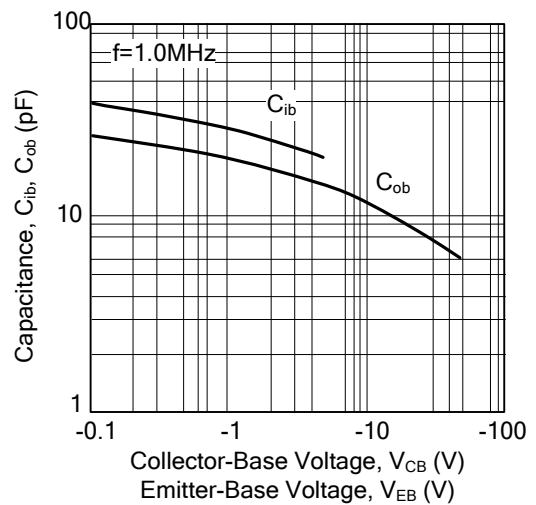
Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage



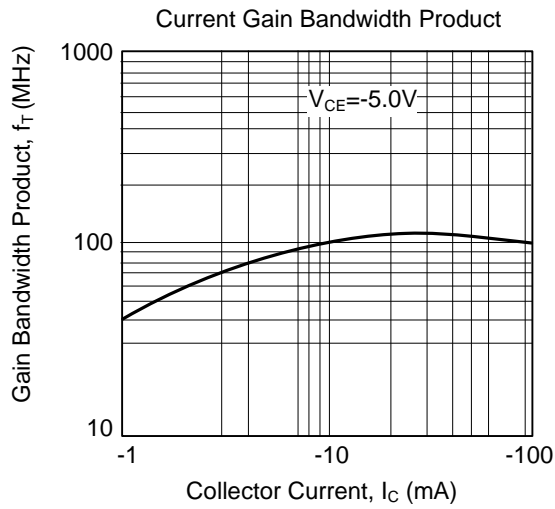
Base-Emitter On Voltage



Input Output Capacitance



## ■ TYPICAL CHARACTERISTICS(Cont.)



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