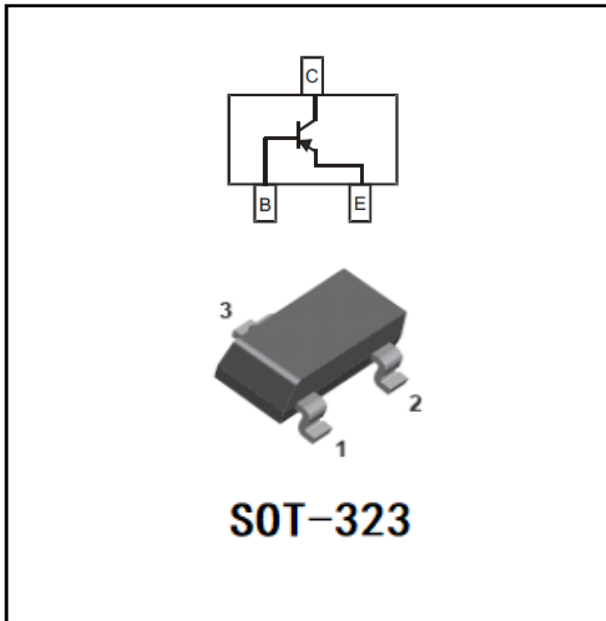


## PNP General Purpose Amplifier



### Features

- Capable of 0.2Watts( $T_A=25^{\circ}\text{C}$ ) of Power Dissipation
- Collector-current -0.5A
- Collector-base Voltage -50V
- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Device Marking:

BC807-16W	5A
BC807-25W	5B
BC807-40W	5C

### ■ Maximum Ratings ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	-45	V
Collector-Base Voltage	$V_{CBO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-5.0	V
Collector Current	$I_C$	-0.5	A
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Operation Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^{\circ}\text{C}$



# BC807-16W THRU BC807-40W

## ■ Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Voltage	$V_{CE0}$	V	$I_C=-10\text{mAdc}$ , $I_B=0$	-45	
Collector-Base Voltage	$V_{CB0}$	V	$I_C=-10\text{uAdc}$ , $I_E=0$	-50	
Emitter-Base Voltage	$V_{EB0}$	V	$I_E=-1.0\text{uAdc}$ , $I_C=0$	-5.0	
Emitter-base Cut-off Current	$I_{EBO}$	$\mu\text{Adc}$	$V_{EB}=-4.0\text{Vdc}$ , $I_C=0$		-0.1
Collector -base Cut-off Current	$I_{CBO}$	$\mu\text{Adc}$	$V_{CB}=-45\text{Vdc}$ , $I_E=0$		-0.1
Collector-emitter Cut-off Current	$I_{CE0}$	$\mu\text{Adc}$	$V_{CE}=-40\text{Vdc}$ , $I_B=0$		-0.2
DC Current Gain	$h_{FE(1)}$		$I_C=-100\text{mAdc}$ , $V_{CE}=-1.0\text{Vdc}$	100	600
DC Current Gain	$h_{FE(2)}$		$I_C=-500\text{mAdc}$ , $V_{CE}=-1.0\text{Vdc}$	40	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=-500\text{mAdc}$ , $I_B=-50\text{mAdc}$		-0.7
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=-500\text{mAdc}$ , $I_B=-50\text{mAdc}$		-1.2

## ■ Small-signal Characteristics

Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	$f_T$	MHz	$I_C=-10\text{mAdc}$ , $V_{CE}=-5.0\text{Vdc}$ , $f=100\text{MHz}$	100	

## ■ Classification of $h_{FE}$

Rank	BC807-16W	BC807-25W	BC807-40W
Range	100-250	160-400	250-600

## ■ Ordering Information (Example)

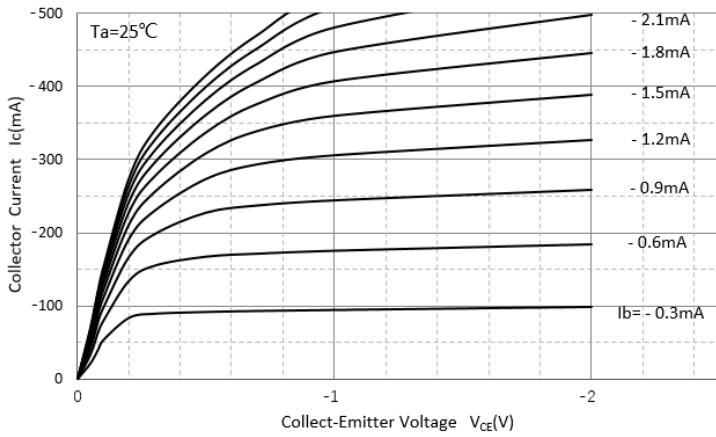
Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BC807-16W THRU BC807-40W	F2	Approximate 0.008	3000	30000	120000	7" reel



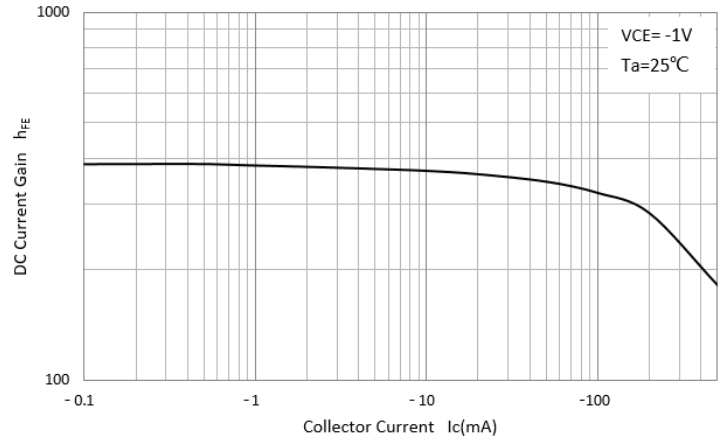
# BC807-16W THRU BC807-40W

## ■ Characteristics (Typical)

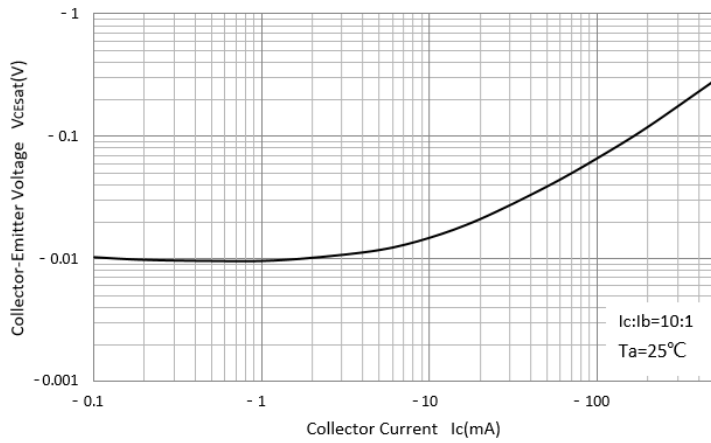
### Static Characteristic



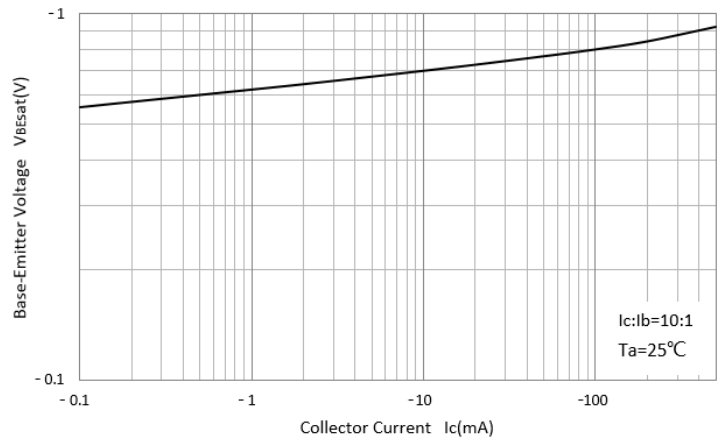
### DC Current Gain



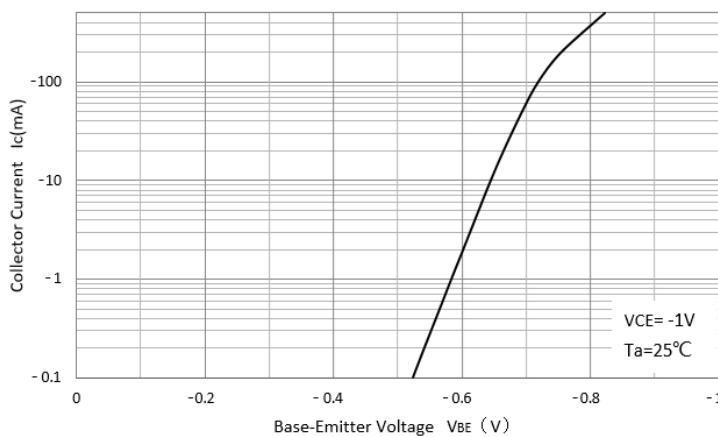
### Collector-Emittor Saturation Voltage



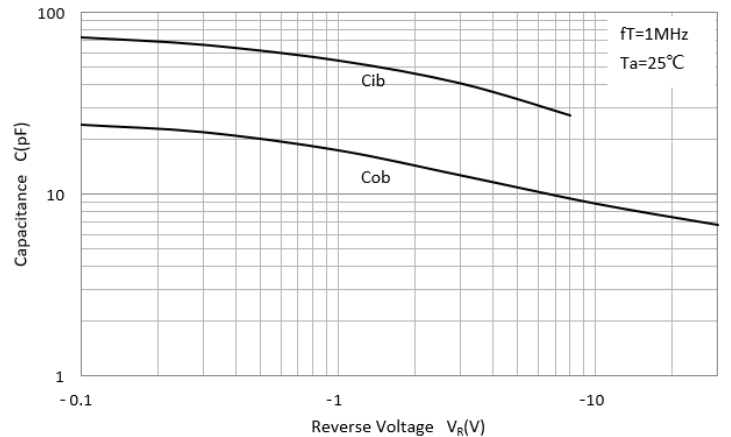
### Base-Emittor Saturation Voltage



### Base-Emittor On Voltage



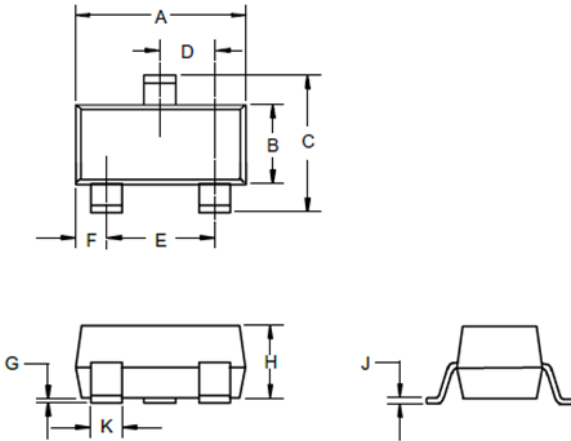
### Cob/Cib-V<sub>CB</sub>/V<sub>EB</sub>





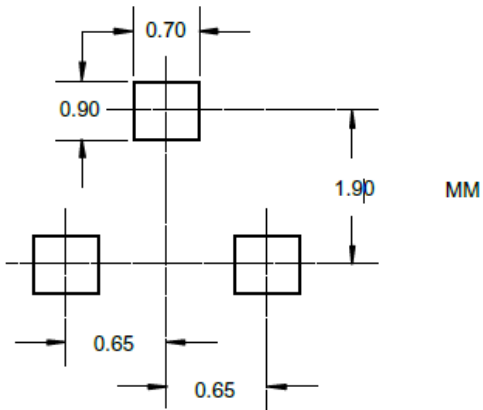
# BC807-16W THRU BC807-40W

## ■ SOT-323 Package Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

## ■ SOT-323 Soldering Footprint





## BC807-16W THRU BC807-40W

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### Disclaimer

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