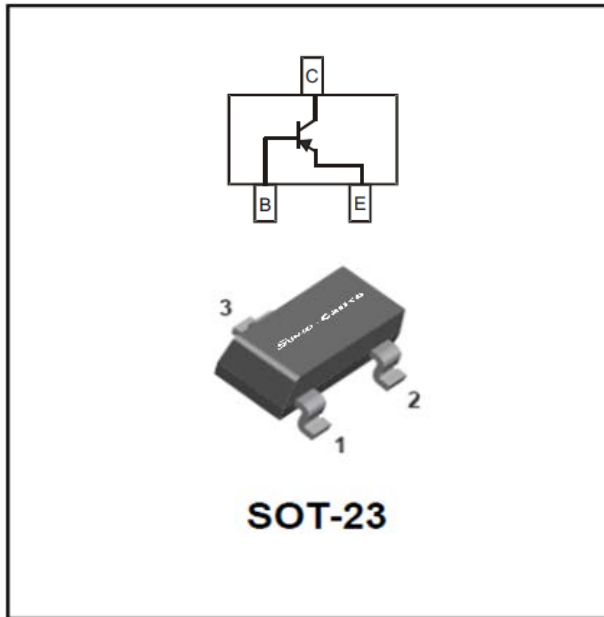


PNP General Purpose Amplifier



Features

- Capable of 0.3Watts(TA=25°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:

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

■ Maximum Rating

Item	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	-45
Emitter -Base Voltage	V_{EBO}	V	-5
Collector Current	I_C	mA	-500
Collector Power Dissipation	P_C	mW	300
Operation Junction Temperature	T_j	°C	-55 to +150
Storage Temperature	T_{stg}	°C	-55 to +150
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	°C/W	417

■ Off Characteristics

Item	Symbol	Unit	Conditions	MIN	MAX
Collector-Emitter Voltage*	V_{CEO}	V	$I_C=-10mA_{dc}$, $I_B=0$	-45	
Collector-Base Voltage	V_{CBO}	V	$I_C=-10\mu A_{dc}$, $I_E=0$	-50	
Emitter-Base Voltage	V_{EBO}	V	$I_E=-1.0\mu A_{dc}$, $I_C=0$	-5.0	
Emitter-base Cut-off Current	I_{EBO}	μA_{dc}	$V_{EB}=-4.0V_{dc}$, $I_C=0$		-0.1
Collector-base Cut-off Current	I_{CBO}	μA_{dc}	$V_{CB}=-45V_{dc}$, $I_E=0$		-0.1

BC807-16 THRU BC807-40

■ On Characteristics

Item		Symbol	Unit	Conditions	Min	Max
DC Current Gain	BC807-16	h_{FE}		$I_C = -100\text{mA}$, $V_{CE} = -1.0\text{Vdc}$	100	250
	BC807-25				160	400
	BC807-40				250	600
DC Current Gain		h_{FE}		$I_C = -500\text{mA}$, $V_{CE} = -1.0\text{Vdc}$	40	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$		-0.7
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$		-1.2

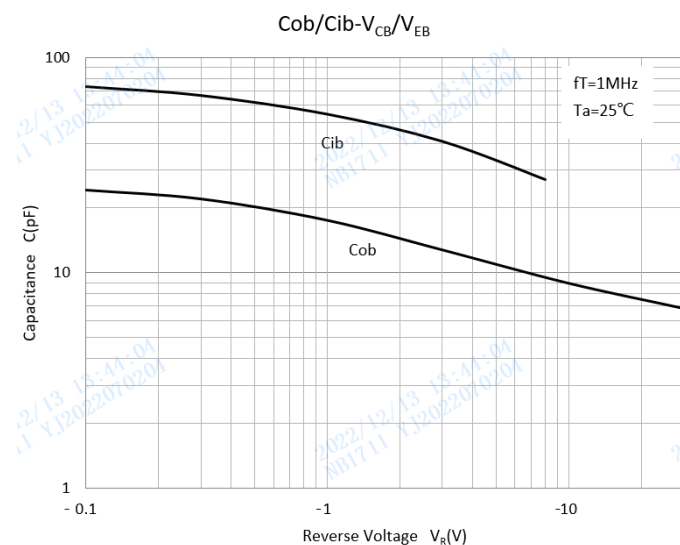
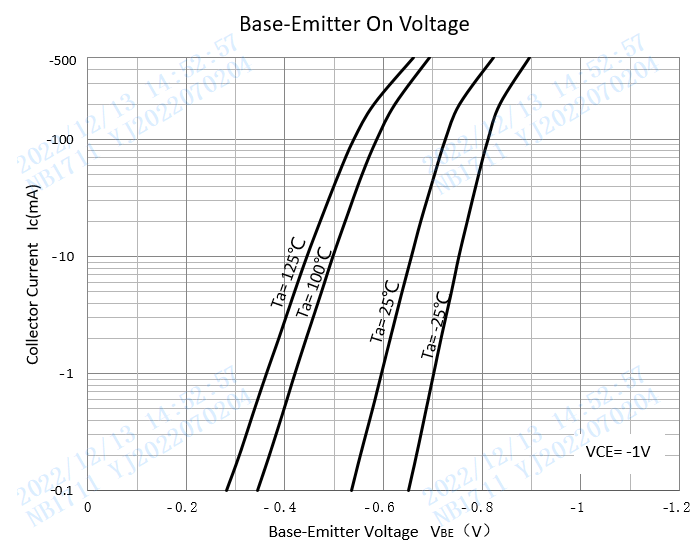
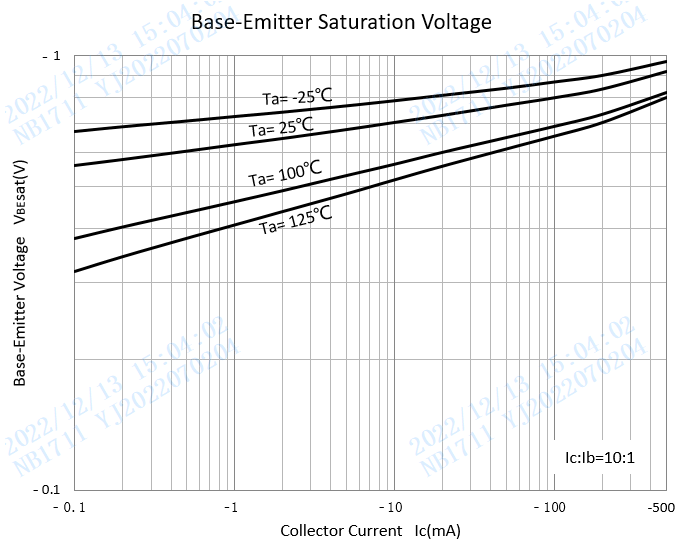
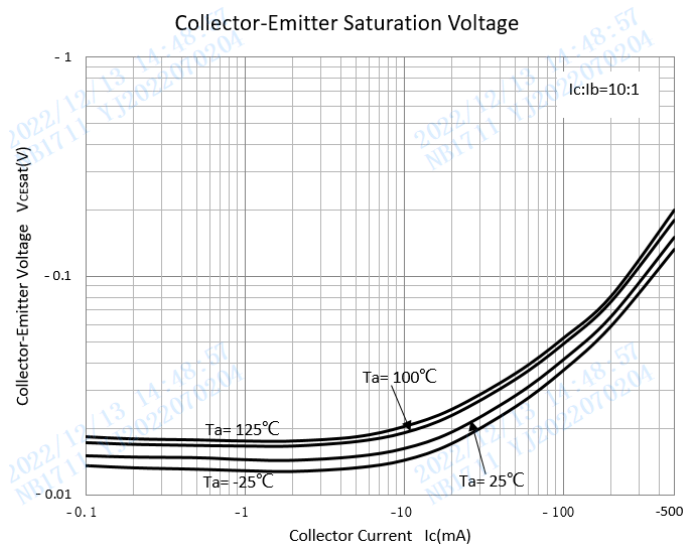
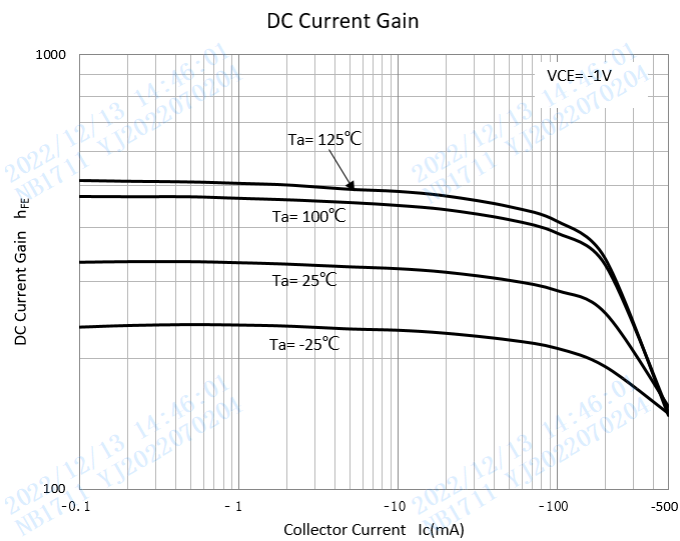
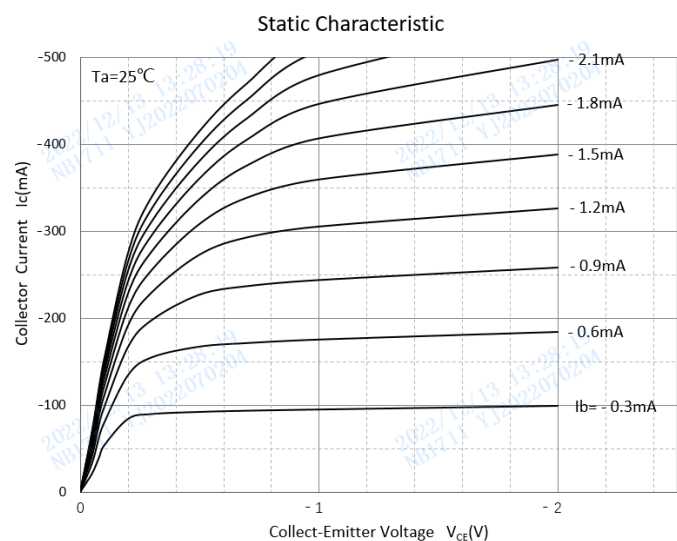
■ Small-signal Characteristics

Item	Symbol	Unit	Conditions	Min	Typ	Max
Transition frequency	f_T	MHz	$I_C = -10\text{mA}$, $V_{CE} = -5.0\text{Vdc}$, $f = 100\text{MHz}$	100		
Collector-base output capacitance	C_{ob}	pF	$V_{CB} = -10\text{V}$, $f = 1\text{MHz}$		10	

■ Ordering Information (Example)

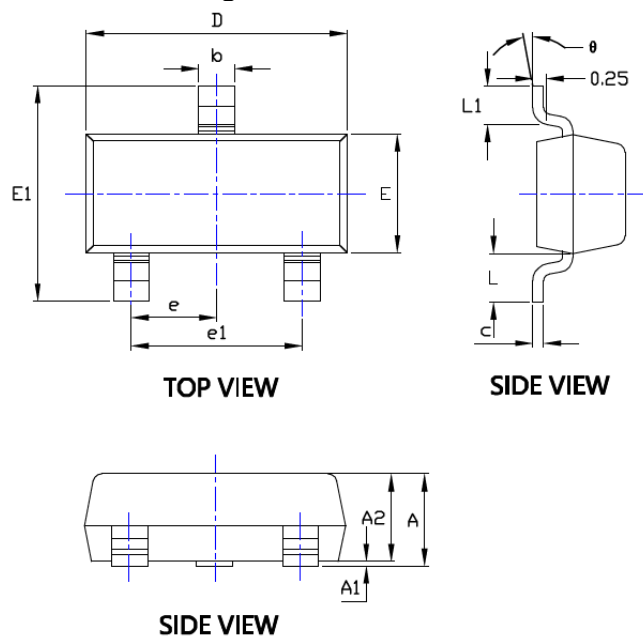
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC807-16- Thru BC807-40	F2	Approximate 0.008	3000	30000	120000	7" reel

■ Characteristics (Typical)



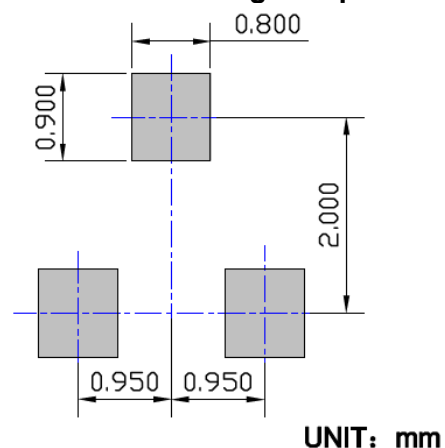
BC807-16 THRU BC807-40

■SOT-23 Package Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

■SOT-23 Soldering Footprint



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