

## Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings @ 25°C Unless Otherwise Specified

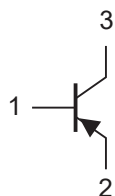
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-45	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-500	mA
Power Dissipation	$P_D$	200	mW

## Thermal characteristics

Parameter	Symbol	Rating	Unit
Junction Temperature Range	$T_j$	-55~+150	°C
Storage Temperature Range	$T_{stg}$	-55~+150	°C
Thermal Resistance from Junction to Ambient	$R_{th(J-A)}$	625	°C/W

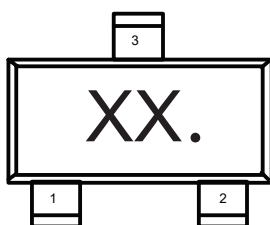
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Internal Structure



- 1.BASE
- 2.EMITTER
- 3.COLLECTOR

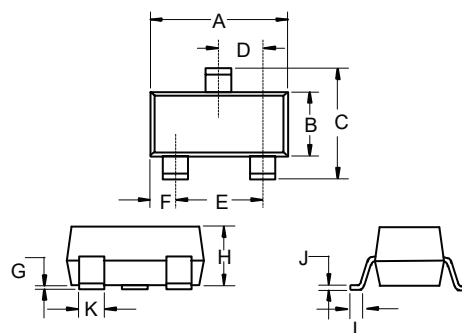
## Marking Code



BC807-16WHE3:5A  
BC807-25WHE3:5B  
BC807-40WHE3:5C

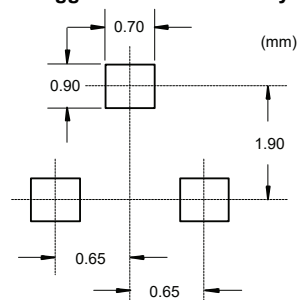
# PNP General Purpose Amplifier

## SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

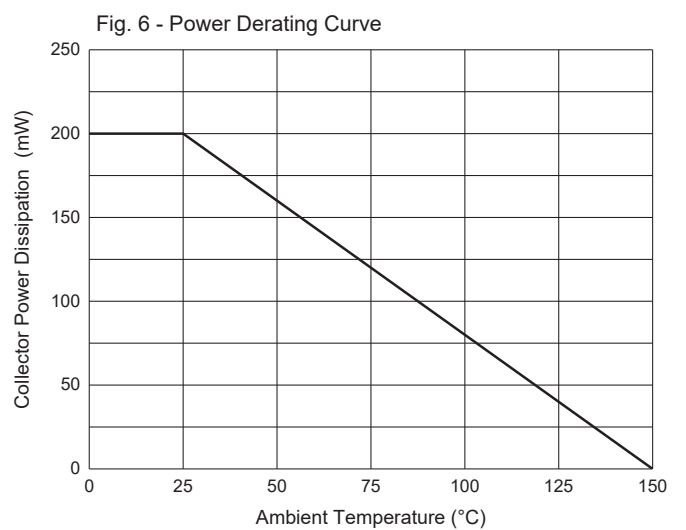
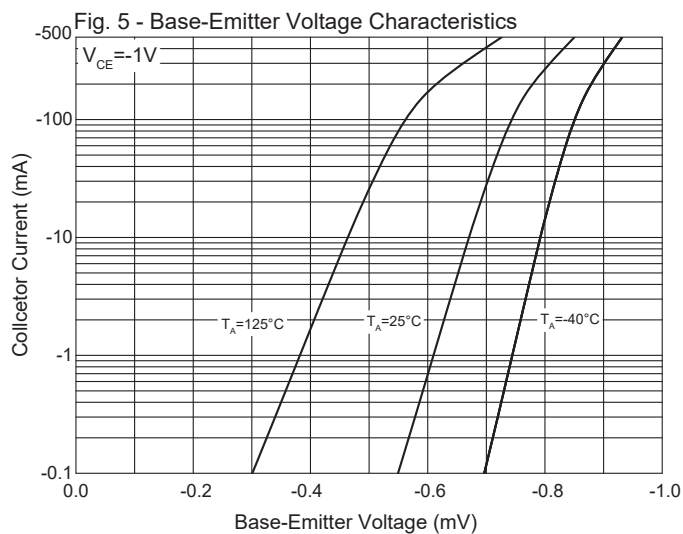
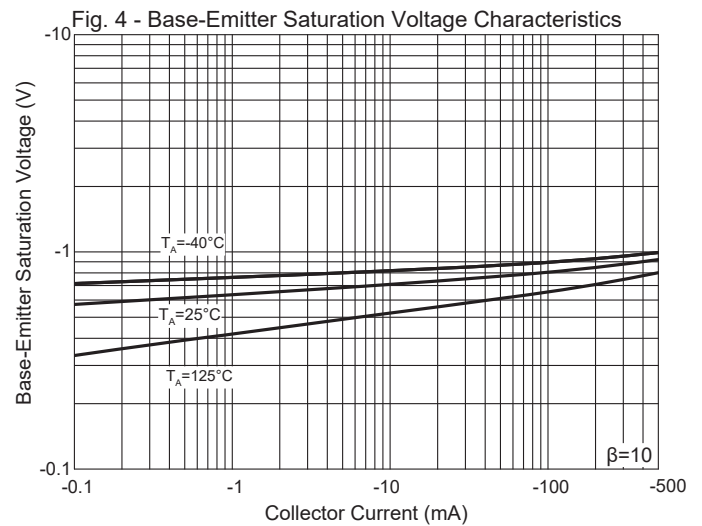
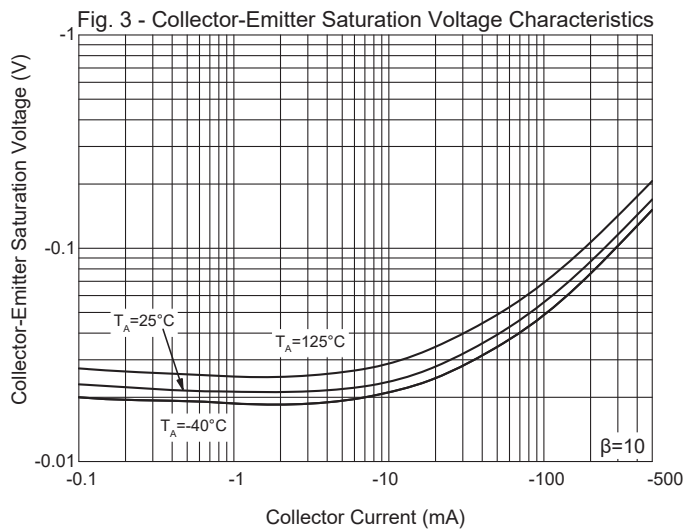
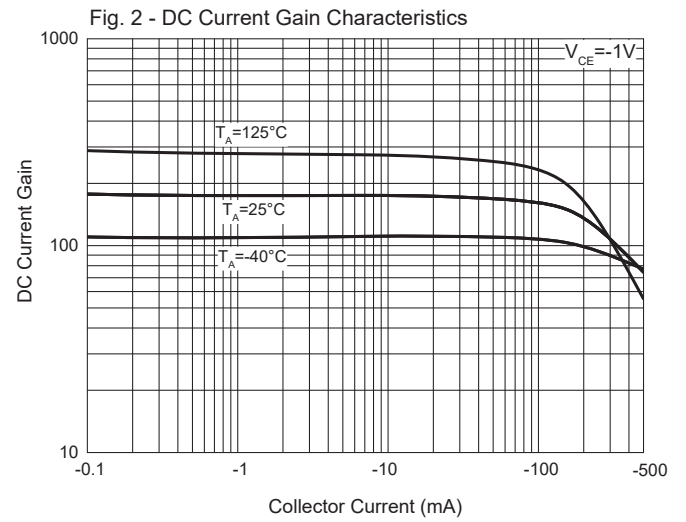
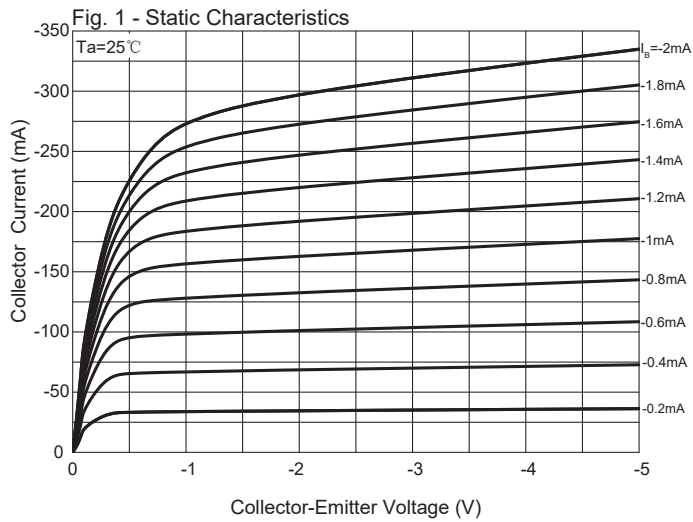
## Suggested Solder Pad Layout



**Electrical Characteristics @  $T_A=25^\circ\text{C}$  Unless Otherwise Specified**

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	-50			V	$I_C=-10\mu\text{A}$ , $I_E=0$
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	-45			V	$I_C=-10\text{mA}$ , $I_B=0$
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	$I_E=-1\mu\text{A}$ , $I_C=0$
Collector Cutoff Current		$I_{CBO}$			-0.1	$\mu\text{A}$	$V_{CB}=-45\text{V}$ , $I_E=0$
Emitter Cutoff Current		$I_{EBO}$			-0.1	$\mu\text{A}$	$V_{EB}=-4\text{V}$ , $I_C=0$
DC Current Gain	BC807-16WHE3	$h_{FE(1)}$	100		250		$V_{CE}=-1\text{V}$ , $I_C=-100\text{mA}$
	BC807-25WHE3		160		400		$V_{CE}=-1\text{V}$ , $I_C=-100\text{mA}$
	BC807-40WHE3		250		600		$V_{CE}=-1\text{V}$ , $I_C=-100\text{mA}$
		$h_{FE(2)}$	40				$V_{CE}=-1\text{V}$ , $I_C=-500\text{mA}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			-0.7	V	$I_C=-500\text{mA}$ , $I_B=-50\text{mA}$
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			-1.2	V	$I_C=-500\text{mA}$ , $I_B=-50\text{mA}$
Transition Frequency		$f_T$	100			MHz	$V_{CE}=-5\text{V}$ , $I_C=-10\text{mA}$ , $f=100\text{MHz}$
Output Capacitance		$C_{ob}$			15	pF	$V_{CB}=-10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$

## Curve Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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