

### **Features**

- Halogen Free. "Green" Device (Note 1)
- 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)

# PNP Small Signal Transistor 300mW

# **Maximum Ratings**

Operating Junction Temperature Range: -55°C to +150°C

Storage Temperature Range: -55°C to +150°C

• Thermal Resistance: 403°C/W Junction to Ambient

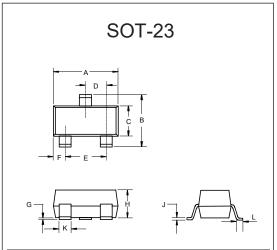
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	-50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-45	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-500	mA
Peak Collector Current	I <sub>CM</sub>	-1000	mA
Peak Base Current	I <sub>BM</sub>	-200	mA
Collector Power Dissipation	P <sub>C</sub>	300	mW

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**

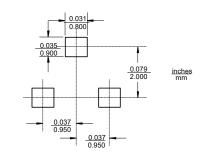


Marking: BC807-16: 5A BC807-25: 5B BC807-40: 5C



DIMENSIONS					
DIM	INC	HES	М	M	NOTE
DIIVI	MIN	MAX	MIN MAX		NOTE
Α	0.110	0.120	2.80	3.04	
В	0.083	0.104	2.10	2.64	
С	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
Е	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
Н	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.014	0.020	0.35	0.51	
L	0.007	0.020	0.20	0.50	

### Suggested Solder Pad Layout





# Electrical Characteristics @ 25°C Unless Otherwise Specified

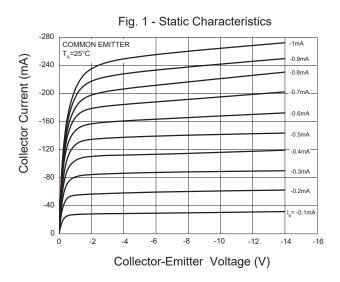
Parameter	Symbol	Min	Тур	Max	Units	Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-50			V	I <sub>C</sub> =-10μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-45			V	I <sub>C</sub> =-10mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I <sub>E</sub> =-1μA, I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CBO</sub>			-0.1	μA	V <sub>CB</sub> =-45V, I <sub>E</sub> =0
Collector Cutoff Current	I <sub>CEO</sub>			-0.2	μA	V <sub>CB</sub> =-40V, I <sub>E</sub> =0
Emitter-Base Cutoff Current	I <sub>EBO</sub>			-0.1	μA	V <sub>EB</sub> =-4V, I <sub>C</sub> =0
DC Current Gain	h <sub>FE1</sub>	100		600		V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA
	h <sub>FE2</sub>	40				V <sub>CE</sub> =-1V, I <sub>C</sub> =-500mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			-0.7	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>			-1.2	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
Transition Frequency	f <sub>T</sub>	100			MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=100MHz

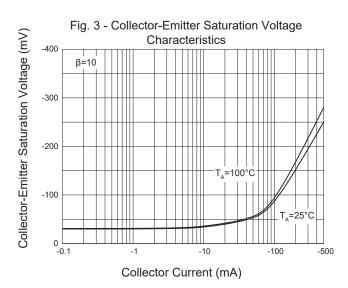
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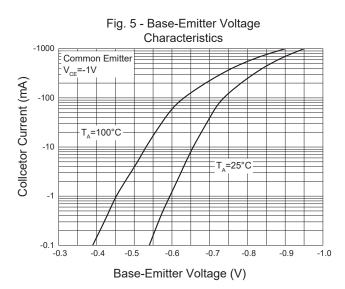
Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600

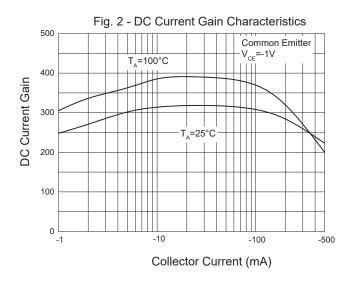


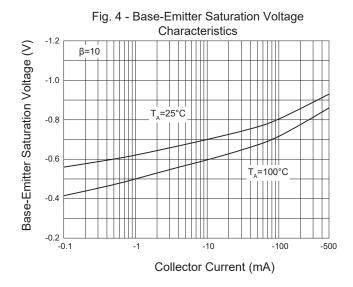
## **Curve Characteristics**

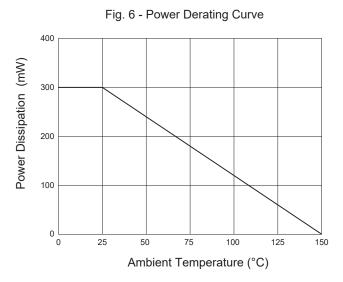














# **Ordering Information**

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

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