

BC807

PNP GENERAL PURPOSE TRANSISTOR

VOLTAGE 45 Volt **POWER** 300 mWatt

SOT-23

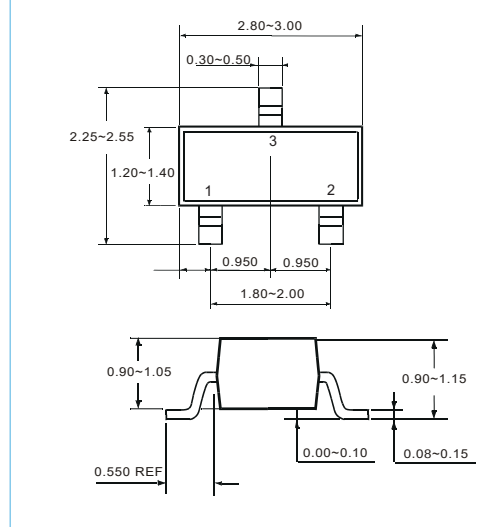
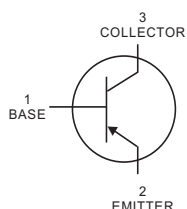
Unit:mm

FEATURES

- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary types: BC817 (NPN)
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Units
Collector - Emitter Voltage	V_{CE0}	-45	V
Collector - Base Voltage	V_{CB0}	-50	V
Emitter - Base Voltage	V_{EB0}	-5	V
Collector Current - Continuous	I_C	-500	mA
Collector Dissipation	P_C	300	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

BC807

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

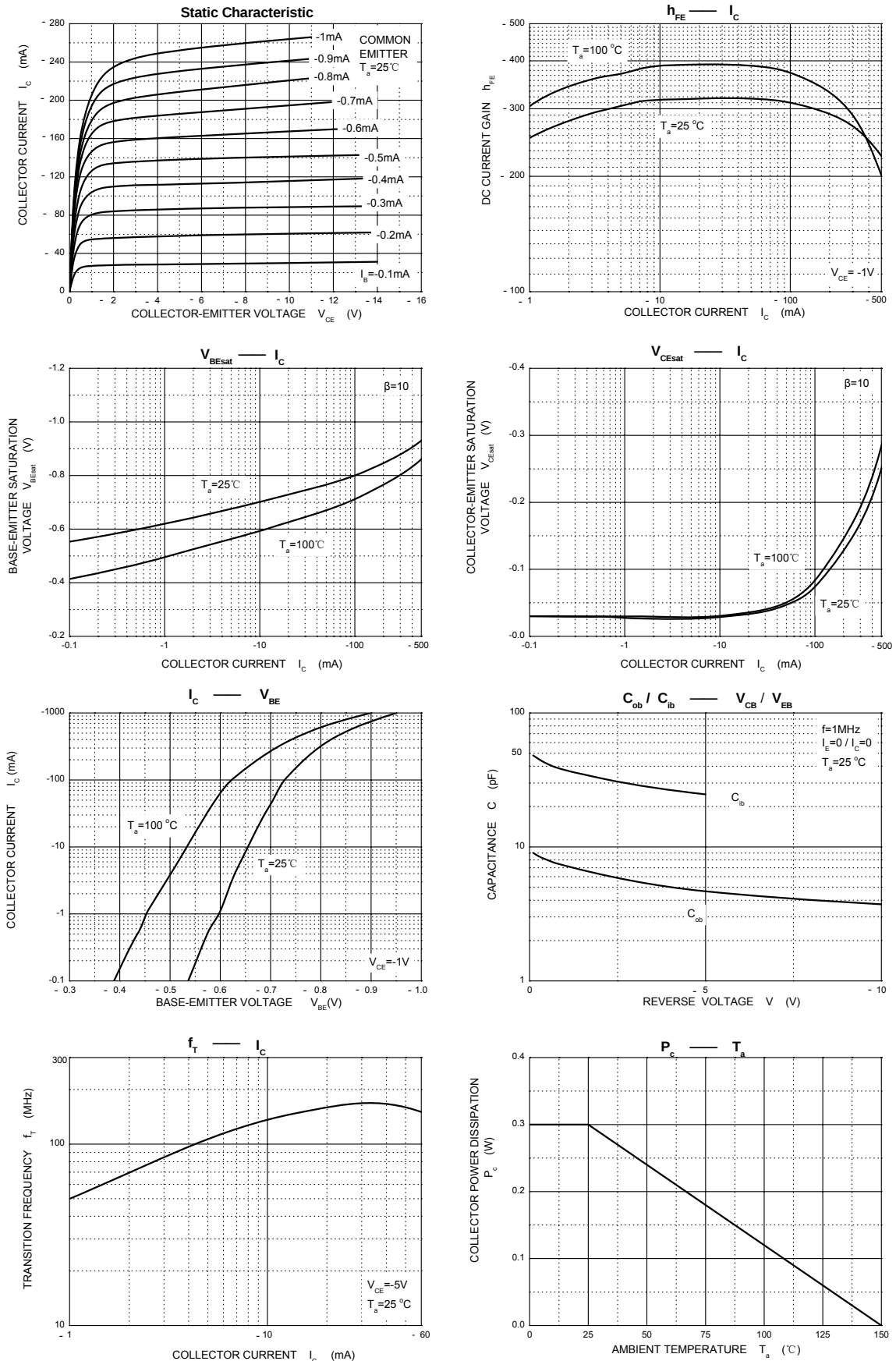
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -10\mu\text{A}$, $I_E = 0$	-50			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -10\text{mA}$, $I_B = 0$	-45			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -1\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -45\text{V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}$, $I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$	100		600	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}$, $I_C = -500\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$ $f = 100\text{MHz}$	100			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600
Marking	5A	5B	5C

BC807

Typical Characteristics

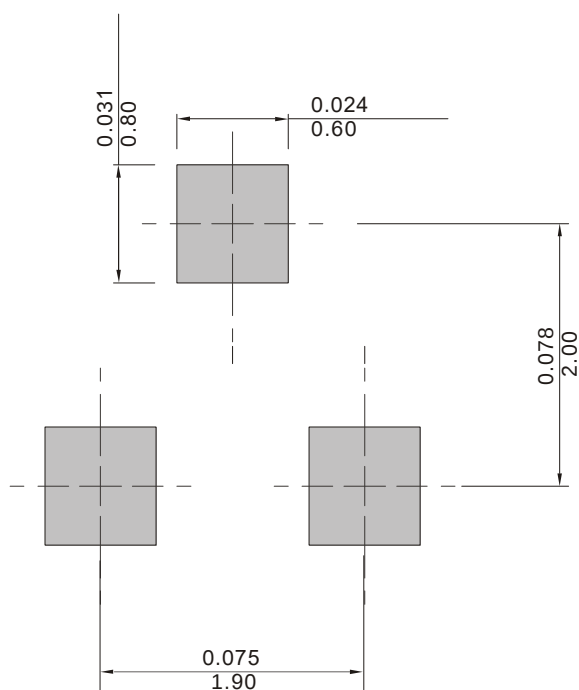


BC807

MOUNTING PAD LAYOUT

SOT-23

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
BC807	SOT-23	7 Inch	3000