CHINA BASE INTERNATIONAL

SOT-23

BC807-16/25/40

www.china-base.com.hk

TRANSISTOR (PNP)

FEATURES

- ·Ldeally suited for automatic insertion
- ·epitaxial planar die construction
- ·complementary NPN type available(BC817)

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

MARKING: 807-16:5A; 807-25:5B; 807-40:5C

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_C	Collector Power Dissipation	0.3	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter		Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage		V_{CBO}	I_C= -10μA, I_E=0	-50		V
Collector-emitter breakdown voltage		V_{CEO}	I_C= -10mA, I_B=0	-45		V
Emitter-base breakdown voltage		V_{EBO}	I_E= -1μA, I_C=0	-5		V
Collector cut-off current		I_{CBO}	V_{CB}= -45V, I_E=0		-0.1	μA
Collector cut-off current		I_{CEO}	V_{CE}= -40V, I_B=0		-0.2	μA
Emitter cut-off current		I_{EBO}	V_{EB}= -4 V, I_C=0		-0.1	μA
DC current gain	**807-16** **807-25** **807-40**	$h_{FE(1)}$	V_{CE}= -1V, I_C= -100mA	100 160 250	250 400 600	
Collector-emitter saturation voltage		V_{CE}(sat)	I_C=-500mA, I_B= -50mA		-0.7	V
Base-emitter saturation voltage		V_{BE}(sat)	I_C= -500mA, I_B= -50mA		-1.2	V
Transition frequency		f_T	V_{CE}= -5V, I_C= -10mA f=100MHz	100		MHz

Copyright © All right reserved: Heyuan China Base Electronics Technology Co., Ltd.

Typical Characteristics

BC807-16/-25/-40

T_{SB}, SUBSTRATE TEMPERATURE (°C)
Fig. 1, Power Derating Curve

$-I_C$, COLLECTOR CURRENT (mA)
Fig. 2, Gain-Bandwidth Product vs Collector Current

$-I_C$, COLLECTOR CURRENT (mA)
Fig. 3, Collector Sat. Voltage vs Collector Current

$-I_C$, COLLECTOR CURRENT (mA)
Fig. 4, DC Current Gain vs Collector Current

$-V_{CE}$, COLLECTOR-EMITTER VOLTAGE (V)
Fig. 5, Typical Emitter-Collector Characteristics

$-V_{CE}$, COLLECTOR-EMITTER VOLTAGE (V)
Fig. 6, Typical Emitter-Collector Characteristics

Copyright © All right reserved: Heyuan China Base Electronics Technology Co., Ltd.