JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-323 Plastic-Encapsulate Transistors

BC807-16W
BC807-25W
BC807-40W

TRANSISTOR (PNP)

SOT-323

1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

- **Ldeally suited for automatic insertion**
- **epitaxial planar die construction**
- **complementary to BC817W**

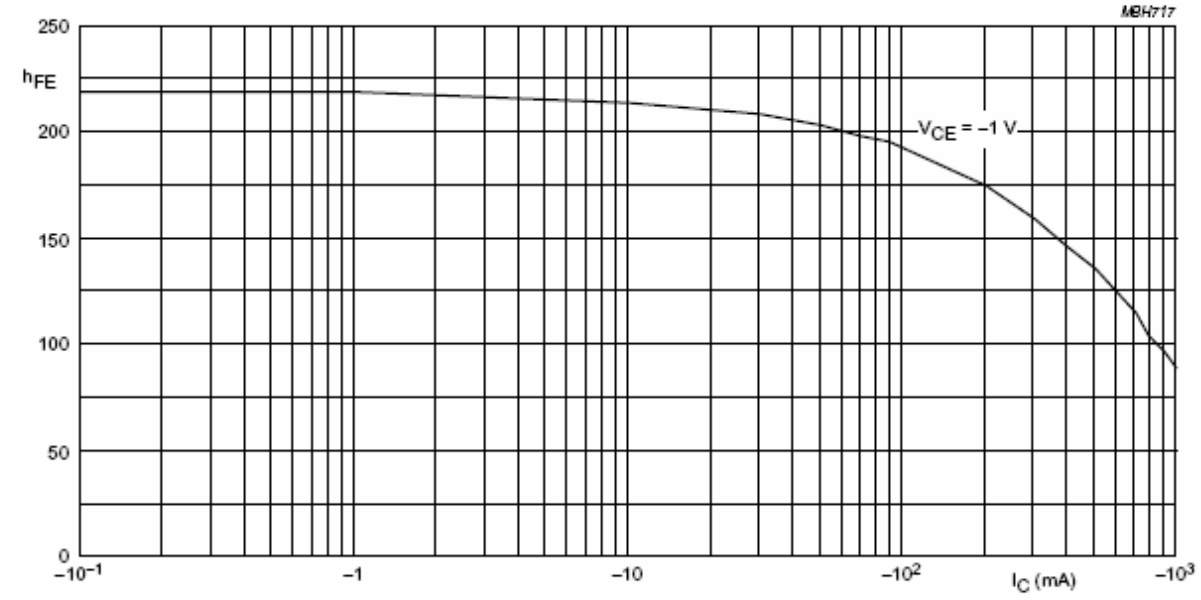
MARKING: 16W:5A; 25W:5B; 40W:5C

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	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

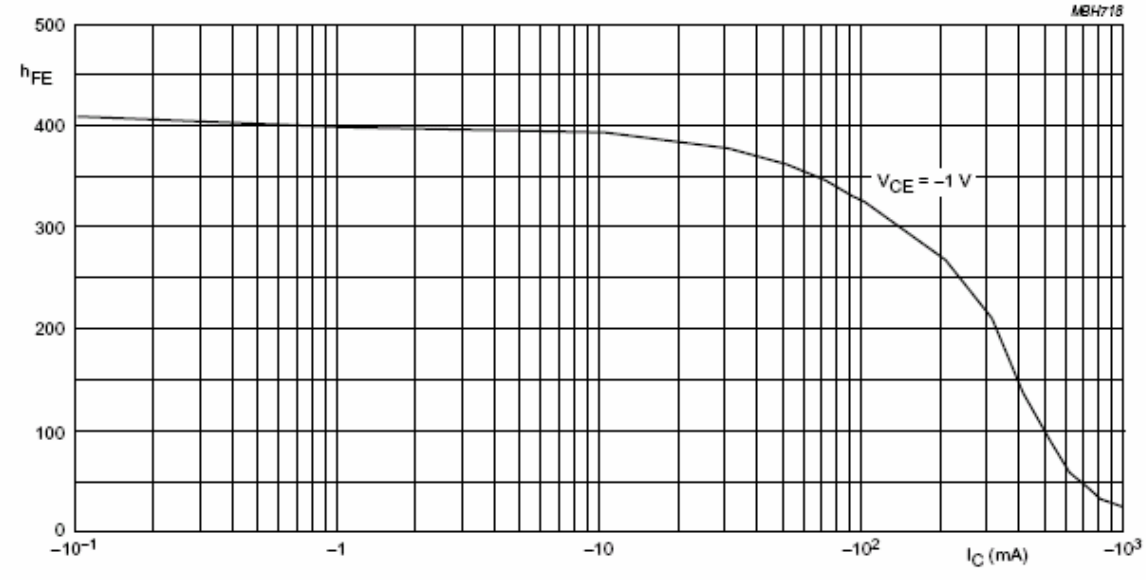
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

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}= -20 V , I_E=0		-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -20 V , I_B=0		-0.2	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5 V , I_C=0		-0.1	μA
DC current gain **807-16W**	$h_{FE(1)}$	V_{CE}= -1V, I_C= -100mA	100	250	
807-25W			160	400	
807-40W			250	600	
	$h_{FE(2)}$	V_{CE}= -1V, I_C= -500mA	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B= -50 mA		-0.7	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}= -1V, I_C= -500mA		-1.2	V
Transition frequency	f_T	V_{CE}= -5 V, I_C= -10mA f=100MHz	80		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,f=1MHz		10	pF



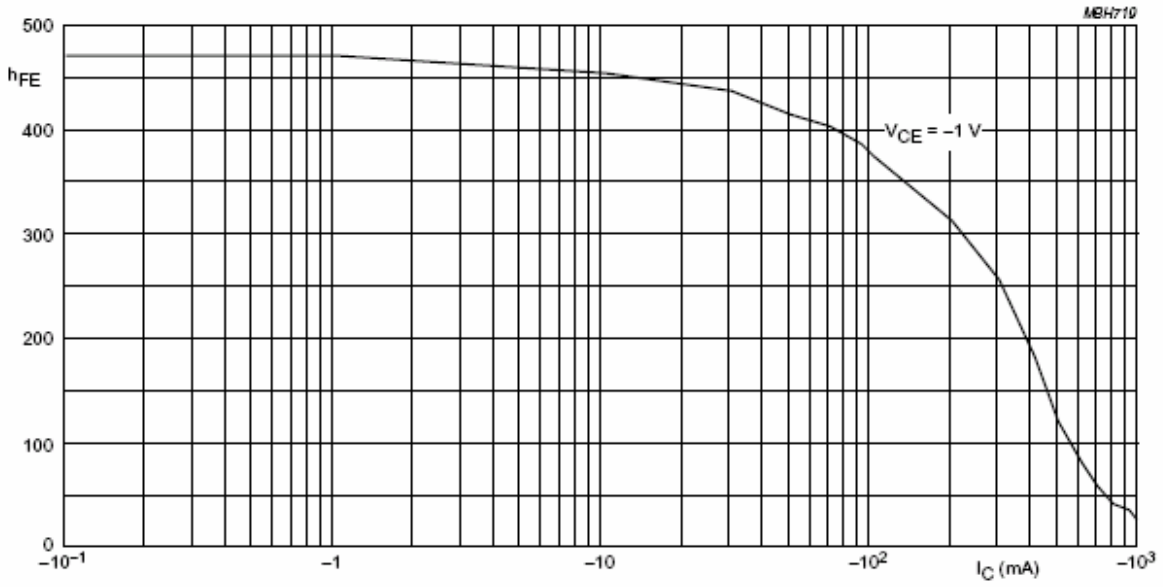
BC807-16W.

Fig.2 DC current gain; typical values.



BC807-25W.

Fig.3 DC current gain; typical values.



BC807-40W.

Fig.4 DC current gain; typical values.