

FEATURES

For general AF applications
 High collector current
 High current gain
 Low collector-emitter saturation voltage
 Complementary types: BC807 (PNP)

BC817-16 (NPN)
BC817-25 (NPN)
BC817-40 (NPN)
Marking

BC817-16	BC817-25	BC817-40
6A	6B	6C

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
DC Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C


ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

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

CLASSIFICATION OF h_{FE}

Rank	6A	6B	6C
Range	100-250	160-400	250-600

BC817-16
BC817-25 Typical Characteristics
BC817-40

