

FEATURES

For general AF applications

High collector current

High current gain

Low collector-emitter saturation voltage

Complementary types: BC807 (PNP)

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 |
| DCollector-Emitter Voltage | V _{CEO} | 45 | V |
| Emitter-Base Voltage | V _{EBO} | 5 | V |
| Collector Current -Continuous | $I_{\rm C}$ | 500 | mA |
| Collector Power Dissipation | Pc | 300 | mW |
| Junction Temperature | T_{J} | 150 | $^{\circ}$ |
| Storage Temperature | Tstg | -55 to +150 | °C |

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



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

| Parameter | Symbol | Test conditions | Min | | Max | Unit |
|--------------------------------------|-----------------------|--|-----|----|-----|------|
| Collector-base breakdown voltage | VCB | IC= 10μA, IE=0 | 50 | | | V |
| Collector-emitter breakdown voltage | VCE | IC= 10mA, IB=0 | 45 | | | V |
| Emitter-base breakdown voltage | V_{EB} | I _E = 1μA, I _C =0 | 5 | | | V |
| Collector cut-off current | ICB | V _{CB} = 45 V , I _E =0 | | | 0.1 | μΑ |
| Emitter cut-off current | IEB | VEB= 4V, IC=0 | | | 0.1 | μΑ |
| 20 | hFE(1 | VCE= 1V, IC= 100mA | 100 | | 600 | |
| DC current gain | hFE(2 | VCE= 1V, IC= 500mA | 40 | | | |
| Collector-emitter saturation voltage | VCE(sat) | IC= 500mA, IB= 50mA | | | 0.7 | V |
| Base-emitter saturation voltage | V _{BE} (sat) | IC= 500mA, IB= 50mA | | | 1.2 | V |
| Base-emitter voltage | VB | VCE= 1 V, IC= 500mA | | | 1.2 | V |
| Collecter capactiance | Cob | VCB=10V ,f=1MHz | | 10 | | pF |
| Transition frequency | fT | V _{CE} = 5 V, I _C = 10mA f=100MHz | 100 | | | MHz |

CLASSIFICATION OF hFE

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





BC817-16 BC817-25 BC817-40

Typical Characteristics











