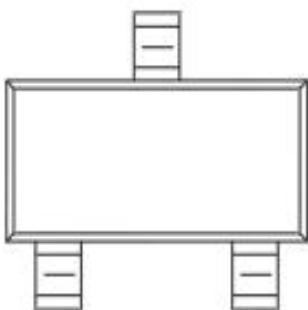
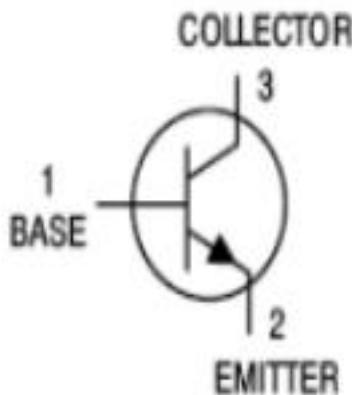


TRANSISTOR (NPN)

MARKING:



Equivalent Circuit:



SOT-23

1.BASE
2.EMITTER
3.COLLECTOR

FEATURES:

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

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

| Parameter | Symbol | Value | Unit |
|---|------------------|----------|------|
| Collector-Base Voltage | VCBO | 50 | V |
| Collector-Emitter Voltage | VCEO | 45 | V |
| Emitter-Base Voltage | VEBO | 5 | V |
| Collector Current -Continuous | IC | 500 | mA |
| Collector Current -Pulsed | ICM | 200 | mA |
| Collector Power Dissipation | PC | 300 | mW |
| Thermal Resistance From Junction To Ambient | R _{θJA} | 417 | °C/W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -55~+150 | °C |

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ unless otherwise specified)

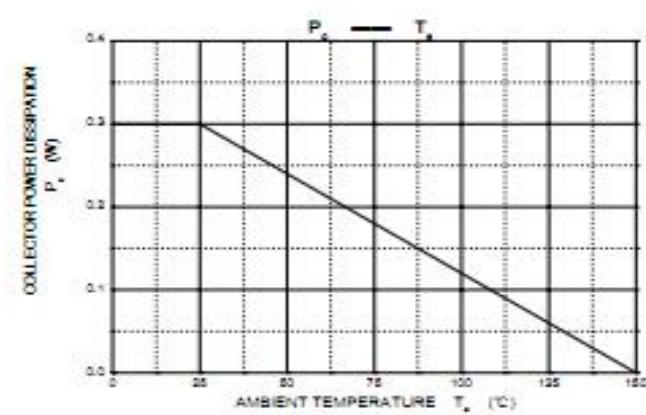
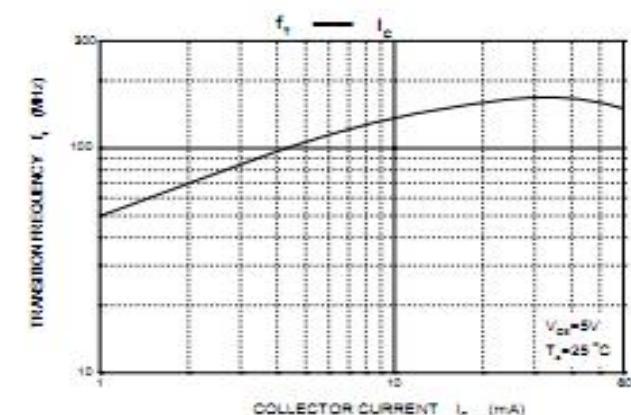
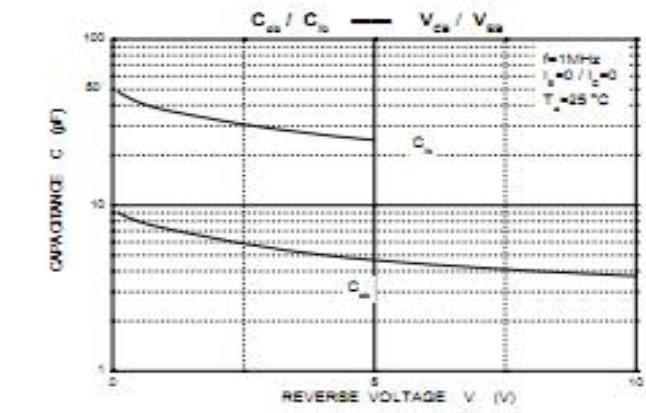
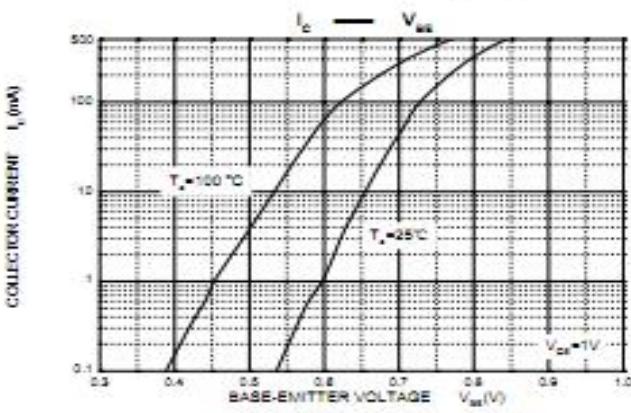
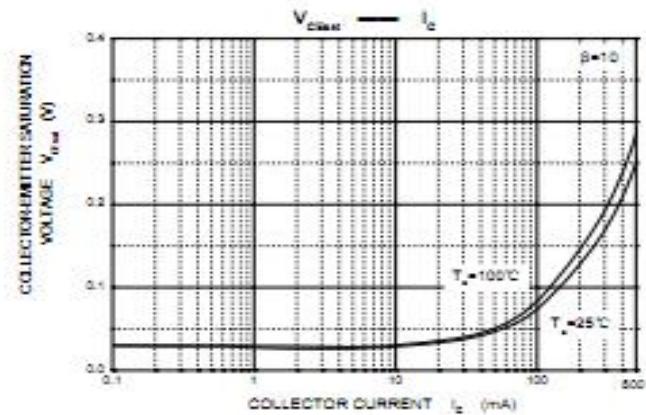
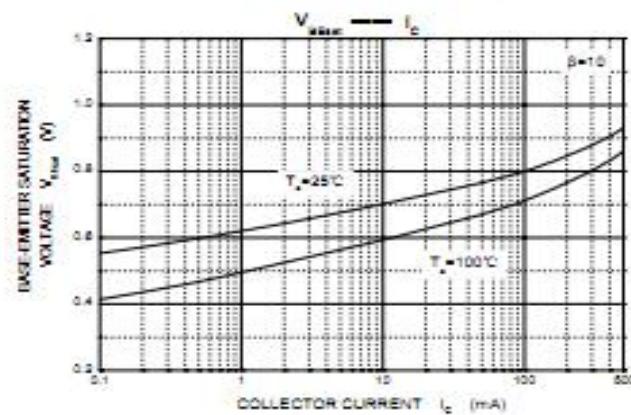
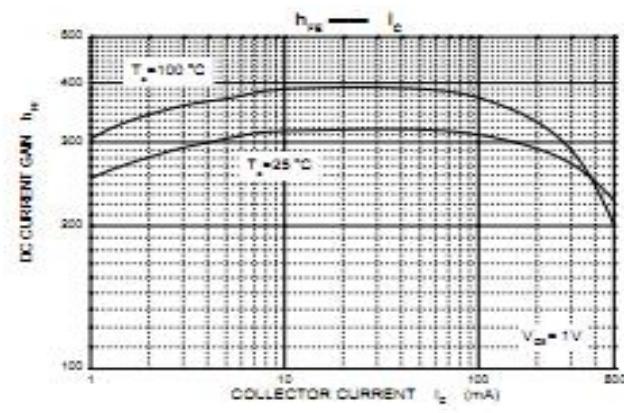
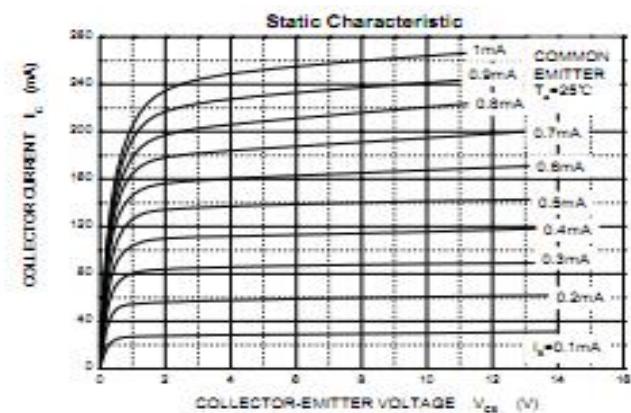
| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|--------------------------------------|----------|-----------------------------------|-----|-----|------|---------|
| Collector-base breakdown voltage | V(BR)CBO | $IC= 10\mu A, IE=0$ | 50 | | | V |
| Collector-emitter breakdown voltage | V(BR)CEO | $IC= 1mA, IB=0$ | 45 | | | V |
| Emitter-base breakdown voltage | V(BR)EBO | $IE=10\mu A, IC=0$ | 5 | | | V |
| Collector cut-off current | ICBO | $VCB= 45 V, IE=0$ | | | 0.1 | μA |
| Collector cut-off current | ICEO | $VCB= 40V, IE=0$ | | | 0.8 | μA |
| Emitter cut-off current | IEBO | $VEB= 5V, IC=0$ | | | 0.1 | μA |
| DC current gain | hFE | $VCE= 1V, IC= 100mA$ | 100 | | 600 | |
| | hFE | $VCE= 1V, IC= 500mA$ | 40 | | | |
| Collector-emitter saturation voltage | VCE(sat) | $IC= 500mA, IB= 5mA$ | | | 0.65 | V |
| Base-emitter saturation voltage | VBE(sat) | $IC= 500 mA, IB= 5mA$ | | | 1.2 | V |
| Transition frequency | fT | $VCE= 5V, IC= 10mA$ $f=100MHz$ | 100 | | | MHz |
| Collector output capacitance | Cob | $VCB=10V, IE=0, f=1MHz$ | | 10 | | PF |

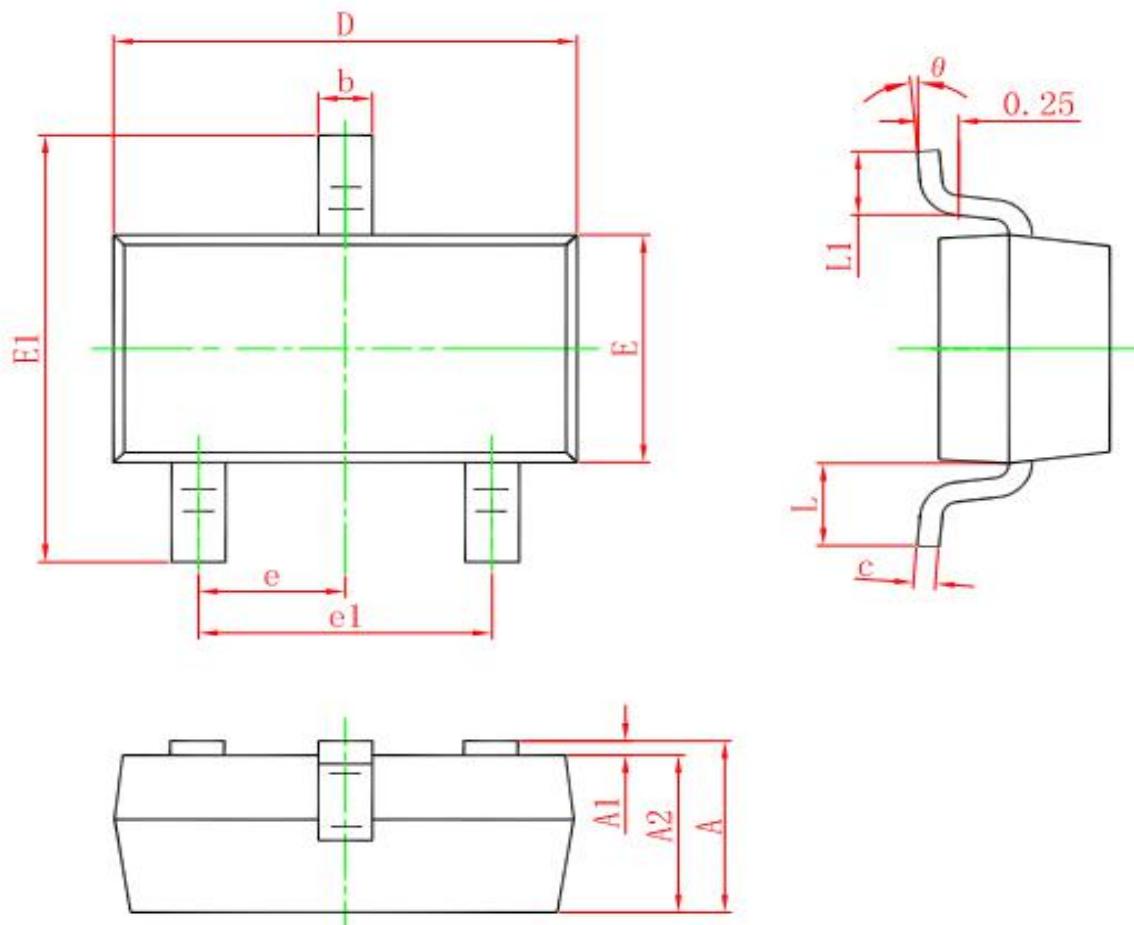
CLASSIFICATION OF hFE

| Rank | BC817-16 | BC817-25 | BC817-40 |
|---------|----------|----------|----------|
| Range | 100-250 | 160-400 | 250-600 |
| Marking | 6A | 6B | 6C |

BC817 Series

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS



SOT-23 PACKAGE OUTLINE DIMENSIONS


| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP. | | 0.037 TYP. | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF. | | 0.022 REF. | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bipolar Transistors - BJT category:

Click to view products by Yongytai Electronics manufacturer:

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [SP000011176](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC2412KT146S](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#)
[CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [MMST8098T146](#) [UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [30A02MH-TL-E](#) [NTE13](#) [NTE26](#)
[NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [STX83003-AP](#) [JANTX2N2920L](#) [JANSR2N2222AUB](#) [CMLT3946EG TR](#) [2SA1371D-AE](#)