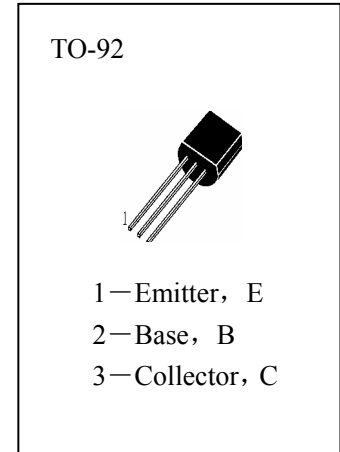




■ PRE-AMPLIFIER, LOW LEVEL & LOW NOISE

■ ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

- T_{stg}—Storage Temperature..... -55~150°C
- T_j—Junction Temperature..... 150°C
- P_C—Collector Dissipation.....450mW
- V_{CBO}—Collector-Base Voltage.....50V
- V_{CEO}—Collector-Emitter Voltage.....45V
- V_{EBO}—Emitter-Base Voltage.....5V
- I_C—Collector Current.....100mA

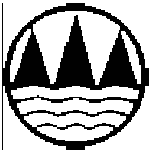


■ ELECTRICAL CHARACTERISTICS (T_a=25°C)

| Symbol | Characteristics | Min | Typ | Max | Unit | Test Conditions |
|----------------------|---------------------------------------|-----|-----|------|------|---|
| ICBO | Collector Cut-off Current | | | 0.05 | μ A | V _{CB} =30V, I _E =0 |
| IEBO | Emitter Cut-off Current | | | 0.05 | μ A | V _{EB} =5V, I _C =0 |
| HFE(1) | DC Current Gain | 60 | | 800 | | V _{CE} =5V, I _C =1mA |
| V _{CE(sat)} | Collector- Emitter Saturation Voltage | | | 0.3 | V | I _C =100mA, I _B =5mA |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | | | 1.0 | V | I _C =100mA, I _B =5mA |
| BV _{CBO} | Collector-Base Breakdown Voltage | 50 | | | V | I _C =100 μ A, I _E =0 |
| BV _{CEO} | Collector-Emitter Breakdown Voltage | 45 | | | V | I _C =1mA, I _B =0 |
| BV _{EBO} | Emitter-Base Breakdown Voltage | 5 | | | V | I _E =100 μ A, I _C =0 |
| Cob | Output Capacitance | | 2.2 | 3.5 | pF | V _{CB} =10V, I _E =0, f=1MHz |
| f _T | Current Gain-Bandwidth Product | 150 | 270 | | MHz | V _{CE} =5V, I _C =10mA |

■ h_{FE} Classification

| A | B | C | D |
|--------|---------|---------|---------|
| 60—150 | 100—300 | 200—600 | 400—800 |



Typical Characteristics

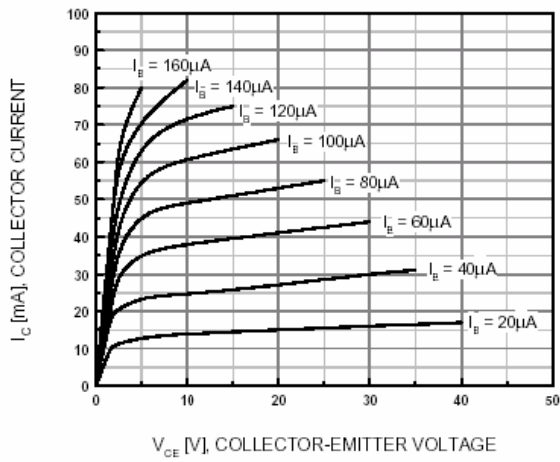


Figure 1. Static Characteristic

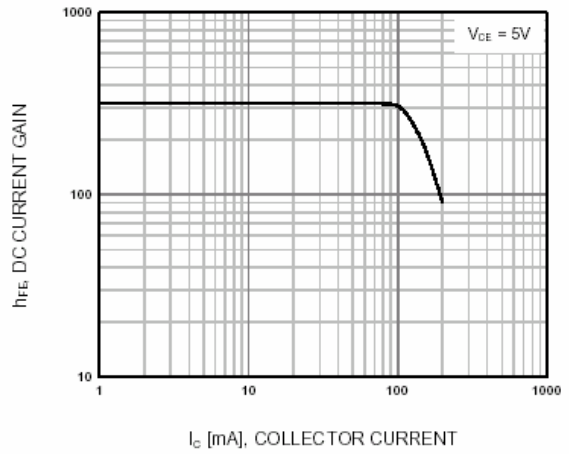


Figure 2. DC current Gain

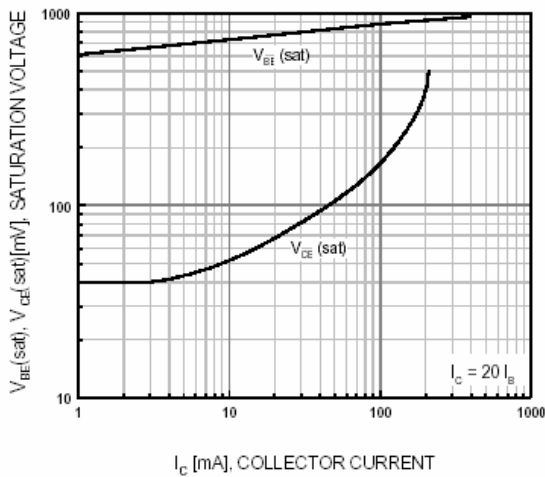


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

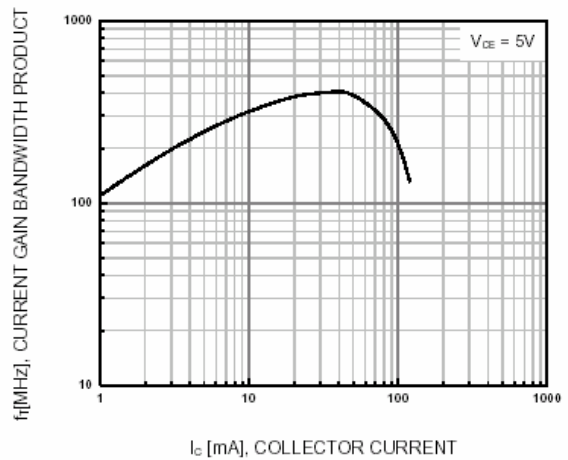


Figure 4. Current Gain Bandwidth Product