

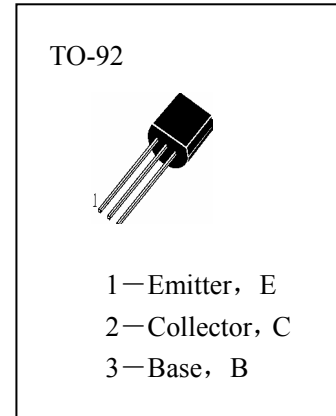


■ NPN EPITAXIAL SILICON TRANSISTOR

2W OUTPUT AMPLIFIER PORTABLE RADIO IN CLASS
B PUSH-PULL OPERATION.

■ ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

- T_{stg}—Storage Temperature..... -55~150°C
- T_j—Junction Temperature.....150°C
- P_C—Collector Dissipation.....1W
- V_{CB0}—Collector-Base Voltage.....40V
- V_{CEO}—Collector-Emitter Voltage.....25V
- V_{EBO}—Emitter-Base Voltage.....6V
- I_C—Collector Current.....1.5A



■ ELECTRICAL CHARACTERISTICS (T_a=25°C)

| Symbol | Characteristics | Min | Typ | Max | Unit | Test Conditions |
|----------------------|---------------------------------------|-----|-----|-----|--|---|
| ICBO | Collector Cut-off Current | | | 0.1 | μ A | V _{CB} =35V, I _E =0 |
| IEBO | Emitter Cut-off Current | | | 0.1 | μ A | V _{EB} =6V, I _C =0 |
| HFE | DC Current Gain | 85 | | 500 | | V _{CE} =1V, I _C =100mA |
| | | 40 | | | V _{CE} =1V, I _C =800mA | |
| V _{BE} | Base- Emitter Voltage | | | 1 | V | V _{CE} =1V, I _C =10mA |
| V _{CE(sat)} | Collector- Emitter Saturation Voltage | | | 0.5 | V | I _C =800mA, I _B =80mA |
| V _{BE(sat)} | Base- Emitter Saturation Voltage | | | 1.2 | V | I _C =800mA, I _B =80mA |
| BV _{CB0} | Collector-Base Breakdown Voltage | 40 | | | V | I _C =100 μ A, I _E =0 |
| BV _{CEO} | Collector-Emitter Breakdown Voltage | 25 | | | V | I _C =2mA, I _B =0 |
| BV _{EBO} | Emitter- Base Breakdown Voltage | 6 | | | V | I _E =100 μ A, I _C =0 |
| f _T | Current Gain-Bandwidth Product | 100 | | | MHZ | V _{CE} =10V, I _C =50mA |

■ h_{FE} Classification

| B | C | D | E |
|--------|---------|---------|---------|
| 85—160 | 120—200 | 160—300 | 270—500 |



Typical Characteristics

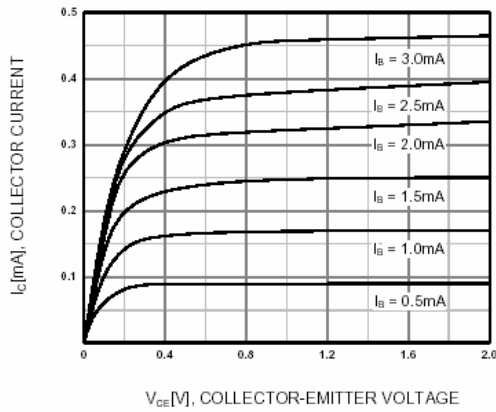


Figure 1. Static Characteristic

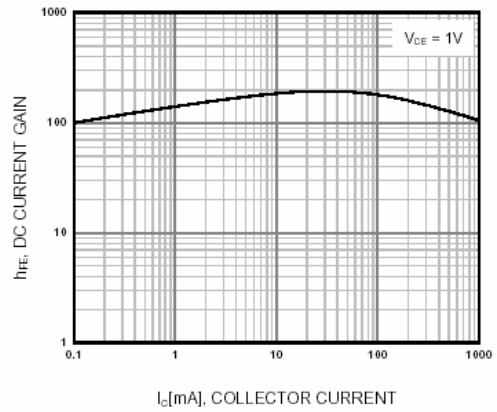


Figure 2. DC current Gain

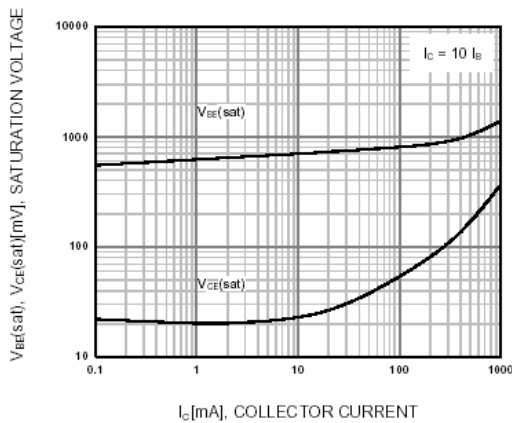


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

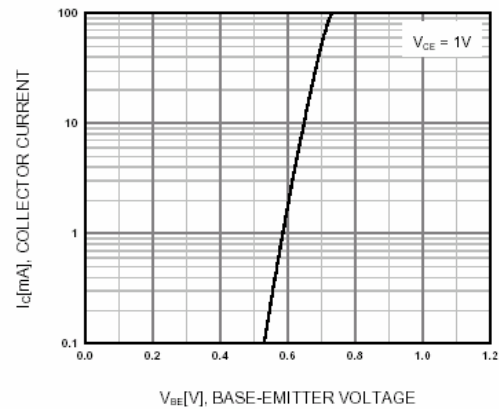


Figure 4. Base-Emitter On Voltage

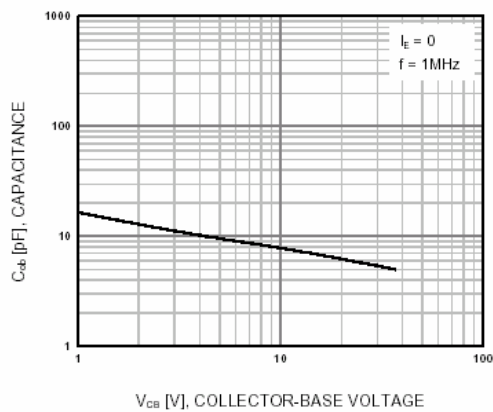


Figure 5. Collector Output Capacitance

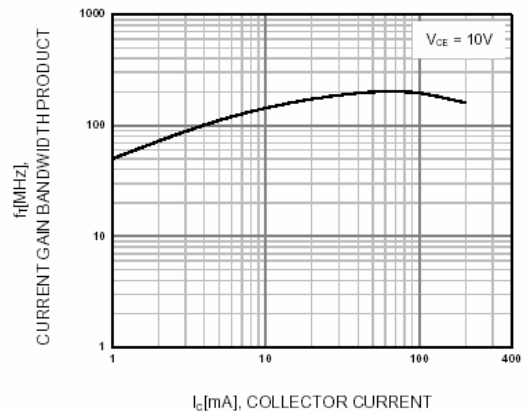


Figure 6. Current Gain Bandwidth Product