



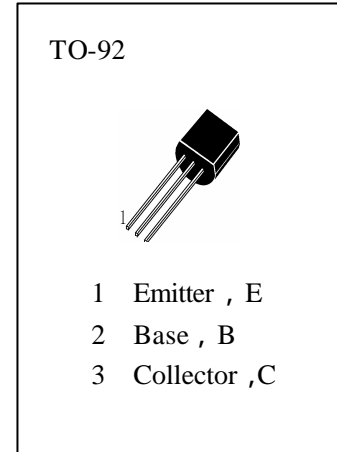
H9018

APPLICATIONS

**AM/FM AMPLIFIER , LOCAL OSCILLATOR
OF FM/VHF TUNER**

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

- T_{stg} —Storage Temperature..... -55~150
- T_j —Junction Temperature.....150
- P_C —Collector Dissipation.....400mW
- V_{CBO} —Collector-Base Voltage.....30V
- V_{CEO} —Collector-Emitter Voltage.....15V
- V_{EBO} —Emitter-Base Voltage.....5V
- I_C —Collector Current.....50mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

| Symbol | Characteristics | Min | Typ | Max | Unit | Test Conditions |
|---------------|---------------------------------------|-----|-----|------|---------|-----------------------------|
| I_{CBO} | Collector Cut-off Current | | | 0.05 | μA | $V_{CB}=12V, I_E=0$ |
| h_{FE} | DC Current Gain | 54 | | 198 | | $V_{CE}=5V, I_C=1mA$ |
| $V_{CE(sat)}$ | Collector- Emitter Saturation Voltage | | | 0.5 | V | $I_C=10mA, I_B=1mA$ |
| BV_{CBO} | Collector-Base Breakdown Voltage | 30 | | | V | $I_C=100\mu A, I_E=0$ |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | 15 | | | V | $I_C=1mA, I_B=0$ |
| BV_{EBO} | Emitter-Base Breakdown Voltage | 5 | | | V | $I_E=100\mu A, I_C=0$ |
| C_{ob} | Output Capacitance | | 1.3 | 1.7 | pF | $V_{CB}=10V, I_E=0, f=1MHz$ |
| f_T | Current Gain-Bandwidth Product | 700 | | | MHz | $V_{CE}=5V, I_C=5mA$ |

h_{FE} Classification

| F | G | H | I |
|-------|--------|--------|---------|
| 54—80 | 72—108 | 97—146 | 132—198 |



Typical Characteristics

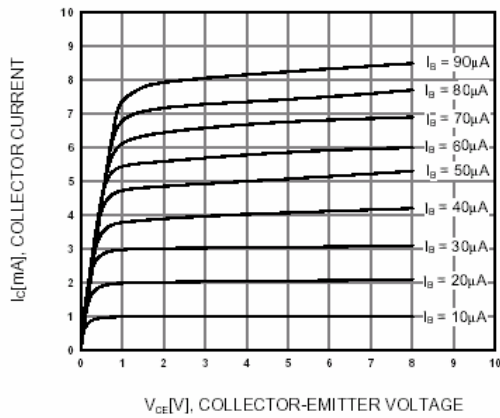


Figure 1. Static Characteristic

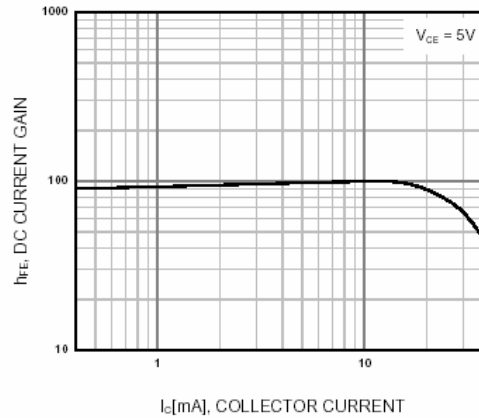


Figure 2. DC current Gain

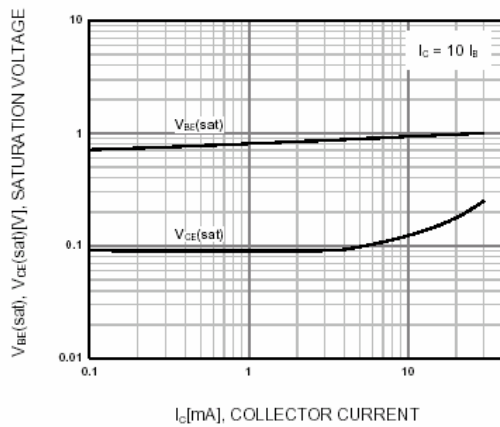


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

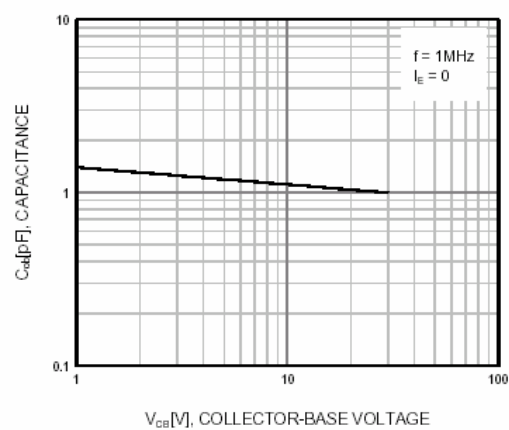


Figure 4. Output Capacitance

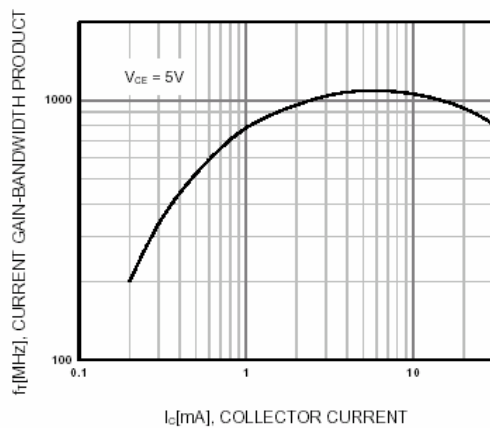


Figure 5. Current Gain Bandwidth Product