

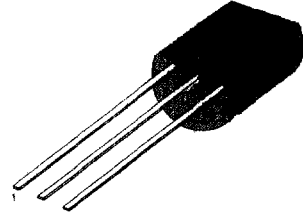
TV 1ST, 2ND PICTURE IF AMPLIFIER
(FORWARD AGC)

- High Current Gain Bandwidth Product $f_T=700\text{MHz}$
- High Power Gain $G_{PE}=24\text{dB}$ (Typ) at 45MHz

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|-----------|------------------|
| Collector-Base Voltage | V_{CB0} | 30 | V |
| Collector-Emitter Voltage | V_{CE0} | 20 | V |
| Emitter-Base Voltage | V_{EB0} | 4 | V |
| Collector Current | I_C | 30 | mA |
| Collector Dissipation | P_C | 250 | mW |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55 ~ 150 | $^\circ\text{C}$ |

TO-92



1. Emitter 2. Base 3. Collector

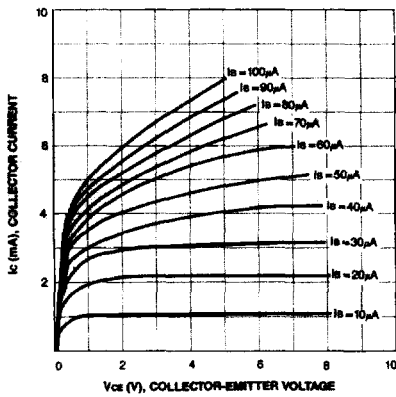
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

| Characteristic | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------------|------------|--|-----|-----|-----|---------------|
| Collector-Base Breakdown Voltage | BV_{CB0} | $I_C=10\mu\text{A}, I_E=0$ | 30 | | | V |
| Collector-Emitter Breakdown Voltage | BV_{CE0} | $I_C=5\text{mA}, I_B=0$ | 25 | | | V |
| Emitter-Base Breakdown Voltage | BV_{EB0} | $I_E=10\mu\text{A}, I_C=0$ | 4 | | | V |
| Collector Cut-off Current | I_{CB0} | $V_{CB}=20\text{V}, I_E=0$ | | | 0.1 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=10\text{V}, I_C=2\text{mA}$ | 40 | | 240 | |
| Current Gain-Bandwidth Product | f_T | $V_{CE}=10\text{V}, I_C=3\text{mA}$ | 400 | 700 | | MHz |
| Reverse Transfer Capacitance | C_{RE} | $V_{CB}=10\text{V}, I_E=0$ $f=1\text{MHz}$ | | 0.6 | | pF |
| Power Gain | G_{PE} | $V_{CE}=10\text{V}, I_E=-3\text{mA}$ $f=45\text{MHz}$ | 20 | 24 | | dB |
| AGC Voltage | V_{AGC} | $G_{PE}=-30\text{dB}$ $f=45\text{MHz}$ | 4.4 | 5.2 | 6.0 | V |

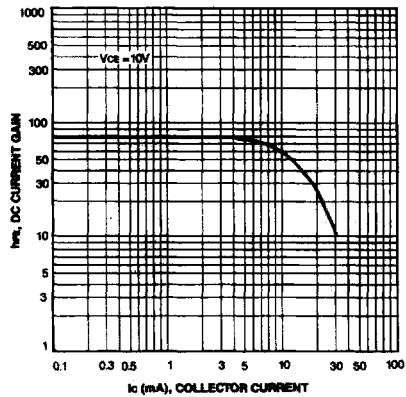
h_{FE} CLASSIFICATION

| Classification | R | O | Y |
|----------------|-------|--------|---------|
| h_{FE} | 40-80 | 70-140 | 120-240 |

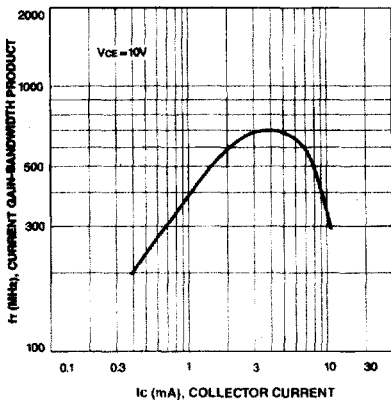
STATIC CHARACTERISTIC



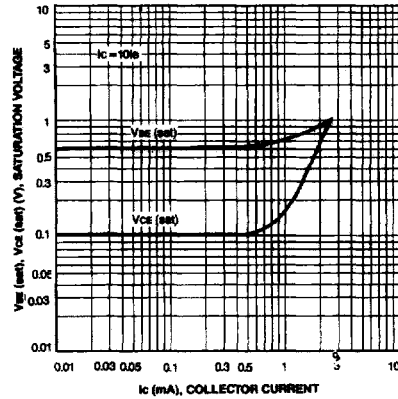
DC CURRENT GAIN



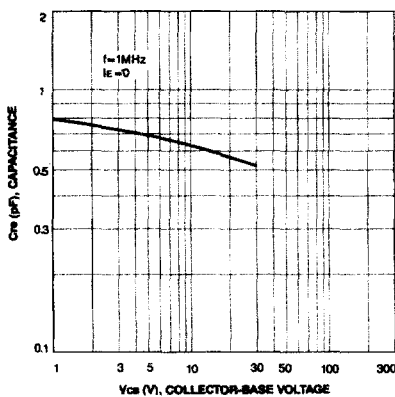
CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



REVERSE CAPACITANCE



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