

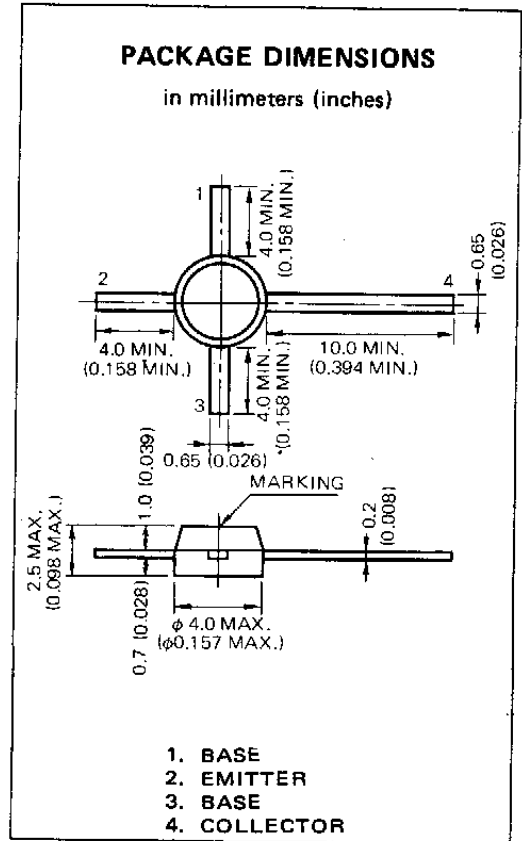
NPN SILICON TRANSISTOR 2SC1070(B)

DESCRIPTION The 2SC1070(B) is specifically designed for UHF RF amplifier applications. The 2SC1070(B) features high power gain, low noise, and excellent forward AGC characteristics in a tiny fourlead plastic package designed to realize easy and economical mounting.

- FEATURES**
- Packaged in tiny plastic mold package.
 - Easy & economical mounting realizable with plastic mold package.
 - Forward AGC characteristic.
 - Balanced base.

ABSOLUTE MAXIMUM RATINGS

- Maximum Temperatures
 Storage Temperature -55 to +125 °C
 Junction Temperature +125 °C Maximum
- Maximum Power Dissipation (Ta=25 °C)
 Total Power Dissipation 200 mW
- Maximum Voltages and Currents (Ta=25 °C)
 V_{CBO} Collector to Base Voltage 30 V
 V_{CEO} Collector to Emitter Voltage . . 25 V
 V_{EBO} Emitter to Base Voltage 4.0 V
 I_C Collector Current 20 mA
 I_B Base Current 10 mA



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

| SYMBOL | CHARACTERISTIC | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|------------------|--------------------------|------|------|------|------|--|
| h _{FE} | DC Current Gain | 60 | 100 | 200 | | V _{CE} =10 V, I _C =3.0 mA |
| I _{AGC} | AGC Current | -8 | -10 | -11 | mA | I _E for which G _{pbAGC} =G _{pb} -30 dB* |
| f _T | Gain Bandwidth Product | 750 | 900 | | MHz | V _{CE} =10 V, I _E =-3.0 mA |
| C _{ob} | Output Capacitance | | 0.6 | 0.8 | pF | V _{CB} =10 V, I _E =0, f=1 MHz |
| NF | Noise Figure | | 4.5 | 6.0 | dB | V _{CB} =10 V, I _E =-3.0 mA, f=900 MHz |
| G _{pb} | Power Gain | 14 | | | dB | V _{CB} =10 V, I _E =-3.0 mA, f=900 MHz |
| I _{CBO} | Collector Cutoff Current | | | 0.1 | μA | V _{CB} =25 V, I _E =0 |

* Classification of I_{AGC}

| Rank | L | K |
|------------|------------|------------|
| Range (mA) | -8.0 - -10 | -9.0 - -11 |

I_{AGC} Test Conditions : I_E for which G_{pbAGC}=G_{pb} -30 dB