

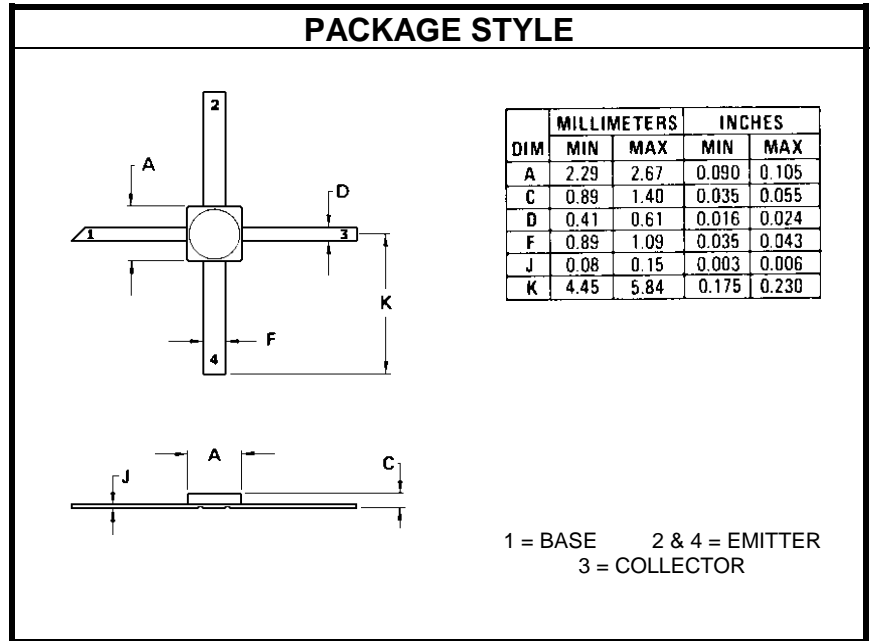
# NPN SILICON BIPOLAR TRANSISTOR

**DESCRIPTION:**

The **ASI AT41470** is a Common Emitter Device Designed for low noise, wideband amplifier, mixer and oscillator applications in the VHF, UHF, and microwave frequencies.

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	60 mA
<b>V<sub>CEO</sub></b>	12 V
<b>V<sub>CB0</sub></b>	20 V
<b>V<sub>EBO</sub></b>	1.5 V
<b>P<sub>DISS</sub></b>	500 mW @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +200 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C


**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
I <sub>CB0</sub>	V <sub>CB</sub> = 8.0 V			200	Na
I <sub>EBO</sub>	V <sub>EB</sub> = 1.0 V			1.0	μA
h <sub>FE</sub>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 10 mA	30	150	300	---
C <sub>CB</sub>	V <sub>CB</sub> = 8.0 V    f = 1.0 MHz		0.2		pF
f <sub>t</sub>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 25 mA    f = 1.0 GHz		8.0		GHz
S <sub>21E</sub>   <sup>2</sup>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 25 mA    f = 2.0 GHz f = 4.0 GHz		12.0 6.5		dB
P <sub>1dB</sub>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 25 mA    f = 2.0 GHz f = 4.0 GHz		19.0 18.5		dBm
G <sub>1dB</sub>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 25 mA    f = 2.0 GHz f = 4.0 GHz		15.0 10.5		dB
NF <sub>O</sub>	V <sub>CE</sub> = 8.0 V    I <sub>C</sub> = 10 mA    f = 1.0 GHz f = 2.0 GHz f = 4.0 GHz		1.3 1.6 3.0	1.9	dB