NPN SILICON BIPOLAR TRANSISTOR

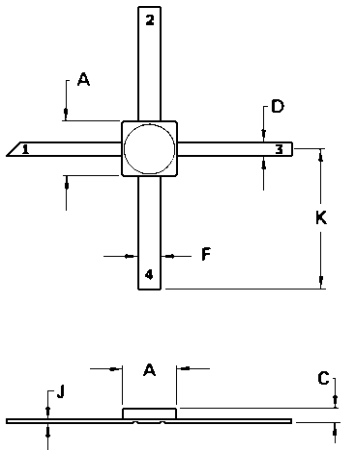
DESCRIPTION:

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

I_C	60 mA
V_{CEO}	12 V
V_{CBO}	20 V
V_{EBO}	1.5 V
P_{DISS}	500 mW @ T_C = 25°C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C

PACKAGE STYLE



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.29	2.67	0.090	0.105
C	0.89	1.40	0.035	0.055
D	0.41	0.61	0.016	0.024
F	0.89	1.09	0.035	0.043
J	0.08	0.15	0.003	0.006
K	4.45	5.84	0.175	0.230

1 = BASE 2 & 4 = EMITTER
3 = COLLECTOR

CHARACTERISTICS $T_C = 25\ ^oC$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
I_{CBO}	V_{CB} = 8.0 V					200	**Na**
I_{EBO}	V_{EB} = 1.0 V					1.0	**µA**
h_{FE}	V_{CE} = 8.0 V	I_C = 10 mA		30	150	300	**---**
C_{CB}	V_{CB} = 8.0 V		f = 1.0 MHz		0.2		**pF**
f_t	V_{CE} = 8.0 V	I_C = 25 mA	f = 1.0 GHz		8.0		**GHz**
$\|S_{21E}\|^2$	V_{CE} = 8.0 V	I_C = 25 mA	f = 2.0 GHz f = 4.0 GHz		12.0 6.5		**dB**
P_{1dB}	V_{CE} = 8.0 V	I_C = 25 mA	f = 2.0 GHz f = 4.0 GHz		19.0 18.5		**dBm**
G_{1dB}	V_{CE} = 8.0 V	I_C = 25 mA	f = 2.0 GHz f = 4.0 GHz		15.0 10.5		**dB**
NF_O	V_{CE} = 8.0 V	I_C = 10 mA	f = 1.0 GHz f = 2.0 GHz f = 4.0 GHz		1.3 1.6 3.0	1.9	**dB**