

NPN SILICON BIPOLAR TRANSISTOR

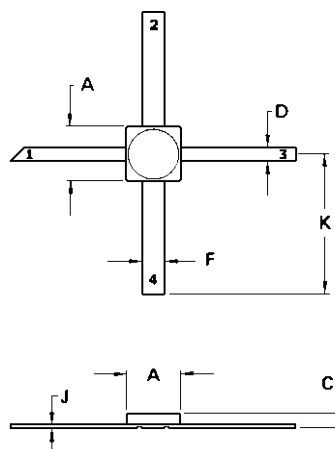
DESCRIPTION:

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 @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$

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 $T_C = 25^\circ\text{C}$

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