

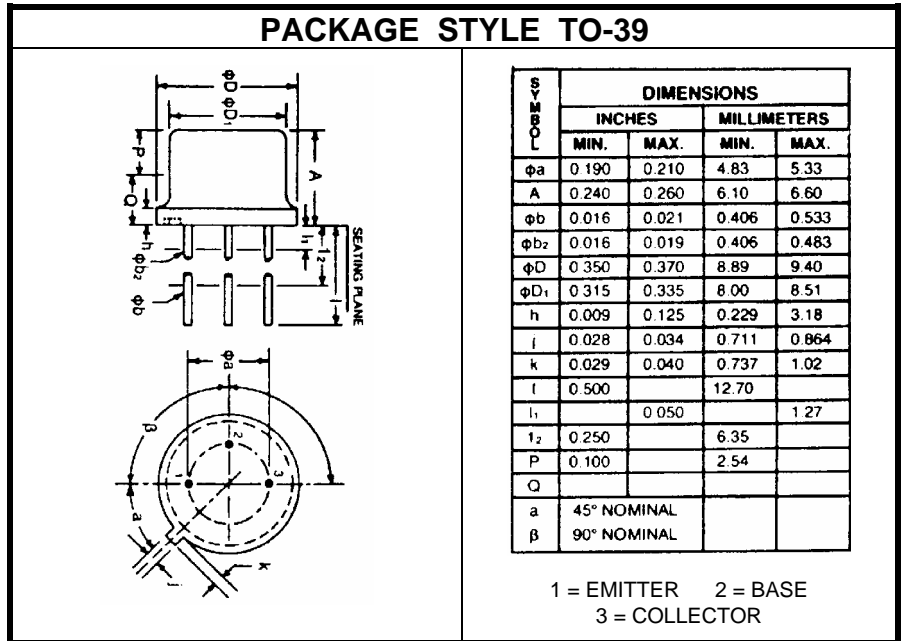
NPN SILICON HIGH FREQUENCY TRANSISTOR

DESCRIPTION:

The **ASI SD1006** is a High Frequency Transistor for General Purpose Amplifier Applications.

MAXIMUM RATINGS

I_C	400 mA
V_{CEO}	30 V
V_{CBO}	50 V
P_{DISS}	3.5 W @ $T_C = 25^\circ\text{C}$
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	50 °C/W


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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 5.0\text{ mA}$	30			V
BV_{CBO}	$I_C = 100\ \mu\text{A}$	50			V
BV_{EBO}	$I_E = 100\ \mu\text{A}$	5.0			V
I_{CEO}	$V_{CE} = 28\text{ V}$			100	μA
h_{FE}	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$	30		300	---
f_t	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$	1500	1800		MHz
C_{ob}	$V_{CB} = 30\text{ V}$ $f = 100\text{ KHz}$		2.5	3.5	pF
C_{ib}	$V_{EB} = 0.5\text{ V}$ $f = 100\text{ KHz}$		8.0	10	pF
NF_{NB}	$V_{CE} = 10\text{ V}$ $I_C = 10\text{ mA}$ $f = 2000\text{ MHz}$		2.7		dB
NF_{BB}	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$ $f = 216\text{ MHz}$		7.0	8.0	dB
G_{VE}	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$ $f = 216\text{ MHz}$		7.2	6.8	dB
X_{MOD}	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$ $P_{out} = +45\text{ dbmV}$		-60	-57	dB
2_{NDO}	$V_{CE} = 15\text{ V}$ $I_C = 50\text{ mA}$ $P_{out} = +45\text{ dbmV}$		-60	-50	dB