

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)

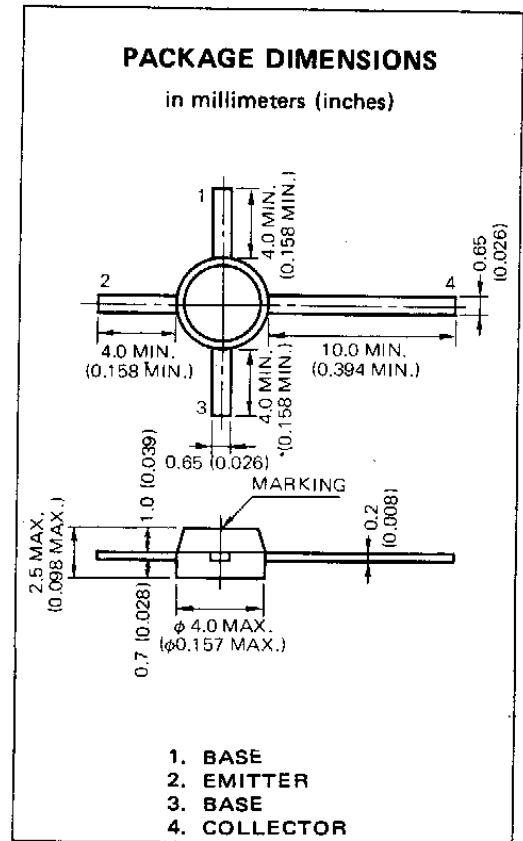
V_{CBO} Collector to Base Voltage 30 V

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 _{pb} AGC=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_{pb}AGC=G_{pb} -30 dB