

# SEMICONDUCTOR PRODUCT

2 S C 2 0 5 0

C.B.C

TYPE	MFM Epitaxial Planar						
MATERIAL	Silicon						
APPLICATION	High Frequency Power Amplifier for 270MHz Band AM/SSB Transceiver						
OUTLINE	See Fig 1						
CONNECTION	See Fig 1						
ABSOLUTE MAXIMUM RATINGS	V <sub>CEO</sub> (V)	V <sub>CEB</sub> <sup>*1</sup> (V)	V <sub>BEBO</sub> (V)	I <sub>C</sub> <sup>*2</sup> (A)	P <sub>C</sub> (W)	T <sub>J</sub> (°C)	Storage (°C)
	70	70	4.0	8	25	150	-55 ~ +150
	T <sub>a</sub> = 25°C						

## TEST SPECIFICATION

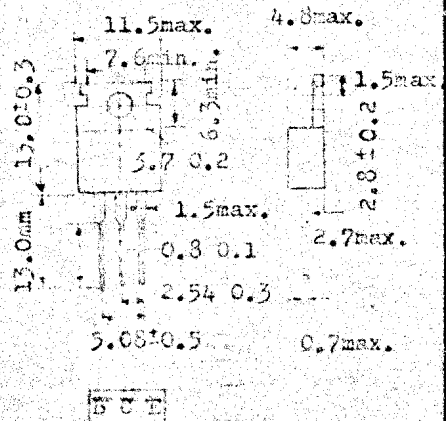
T<sub>a</sub> = 25°C

Symbol	Condition	Typ.	Limit		Unit
			Min	Max	
I <sub>CBO</sub>	V <sub>CEB</sub> =40V, I <sub>E</sub> =0			20	μA
h <sub>FE</sub>	V <sub>CEB</sub> =10V, I <sub>C</sub> =2.0A		20	150	
V <sub>CE(sat)</sub>	I <sub>C</sub> =2.0A, I <sub>B</sub> =0.4A	0.2		0.5	V
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.5A	150			MHz
C <sub>ob</sub>	V <sub>CE</sub> =10V, f=1MHz, I <sub>E</sub> =0	80			PF
P <sub>o</sub>	V <sub>CC</sub> =12V, f=50MHz, P <sub>i</sub> =3W		13.0		W
η <sub>c</sub>	V <sub>CC</sub> =12V, f=50MHz, P <sub>i</sub> =3W		60		%

\*1 RBE=100Ω

Fig 1

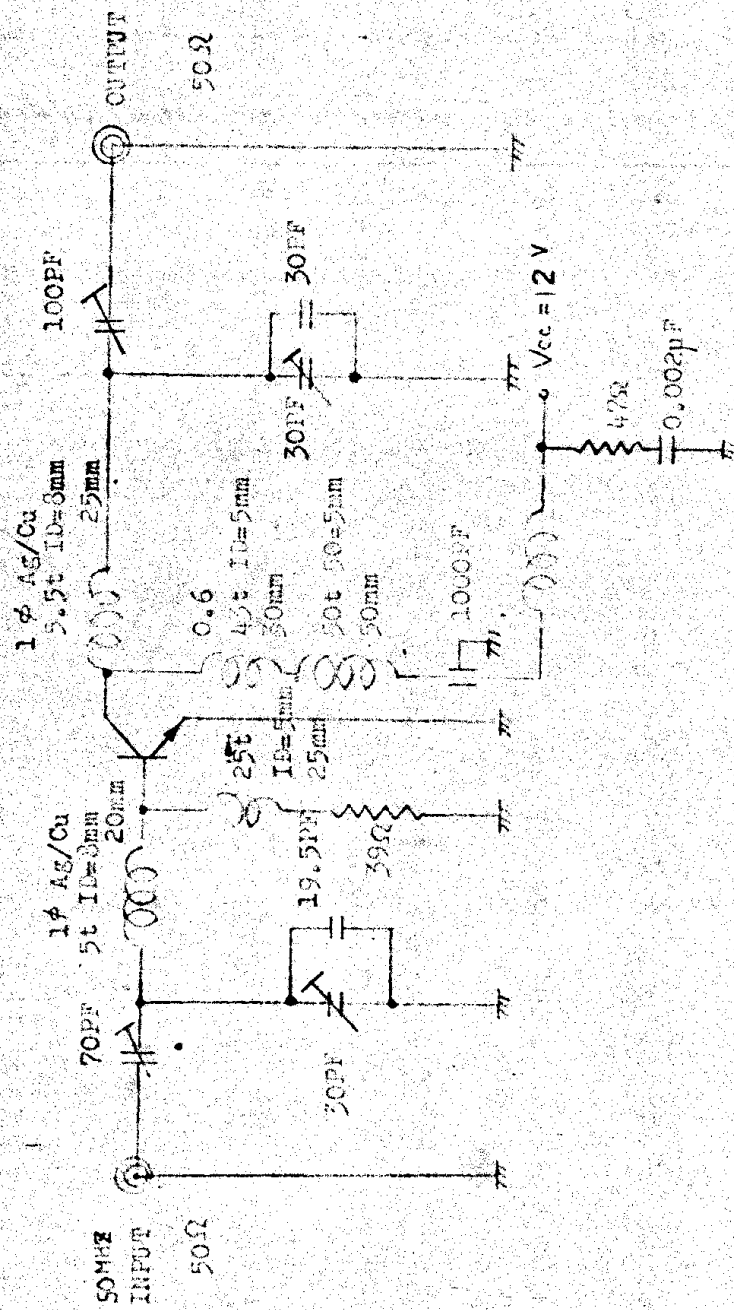
\*2 PW=20mJ, Duty Cycle 50%



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