

TOSHIBA RF POWER AMPLIFIER MODULE



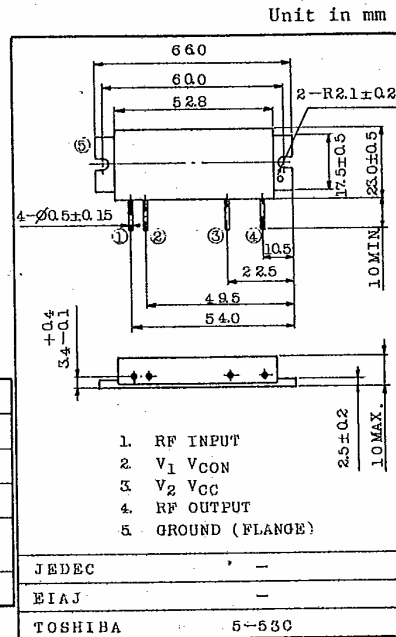
UHF POWER AMPLIFIER MODULE

FEATURES:

- . Output Power : $P_o \geq 13W$
- . Minimum Gain : $G_p = 18.1dB$
- . Efficiency : $\eta_T \geq 40\%$
- . 50Ω Input/ Output Impedance
- . Guaranteed Stability

MAXIMUM RATINGS ($T_c = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	VCC	16	V
DC Supply Voltage	VCON	16	V
RF Input Power	P _i	300	mW
Operating Case Temperature Range	T _c (OP)	-30 ~ 100	°C
Storage Temperature Range	T _{stg}	-40 ~ 110	°C



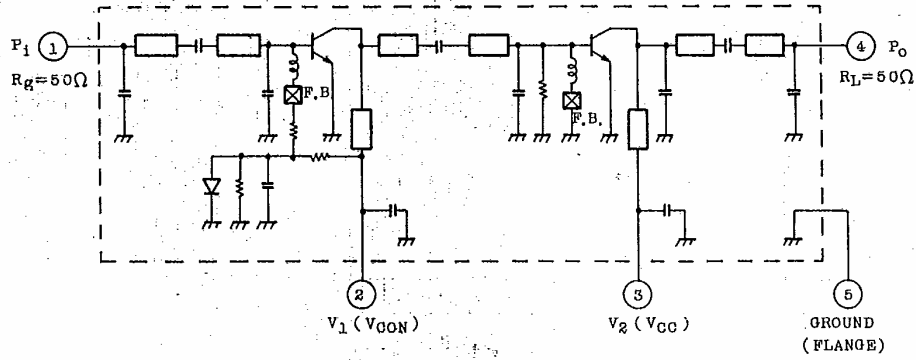
CHARACTERISTICS ($T_c = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range (1)	f _{range}	-	400	-	512	MHz
Output Power	P _o	P _i =200mW VCC=12.5V, VCON=12.5V Z _g =Z ₁ =50Ω	13	-	-	W
Power Gain	G _p		18.1	-	-	dB
Total Efficiency	η _T		40	50	-	%
Input VSWR	VSWR _{in}		-	1.5	2	-
Harmonics	HRM		-	-30	-25	dB
Load Mismatch	-	VCC=15V, VCON=12.5V P _i =200mW VSWR load 20:1 all phase	No Degradation			-
Stability	-	VCC=12.5V, P _i =200mW VCON=0 ~ 12.5V VSWR Load 3:1 all phase	All spurious output than 60dB below desired signal			-

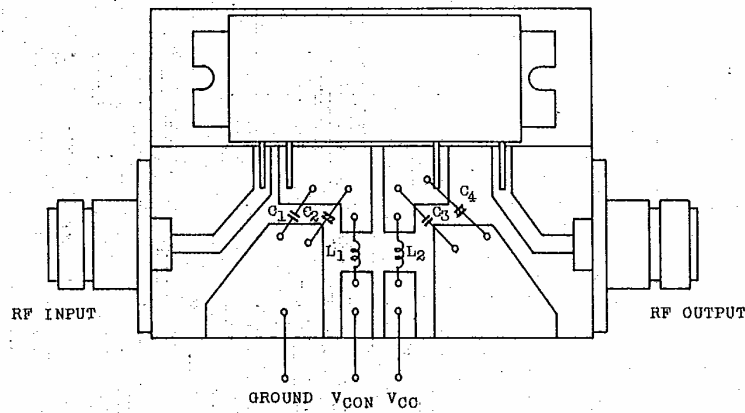
- (1) Frequency range is covered in three bands
- | | |
|--------|------------|
| S-AU6L | 400-440MHz |
| S-AU6M | 440-480MHz |
| S-AU6H | 480-512MHz |

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SCHEMATIC



TEST MOUNT

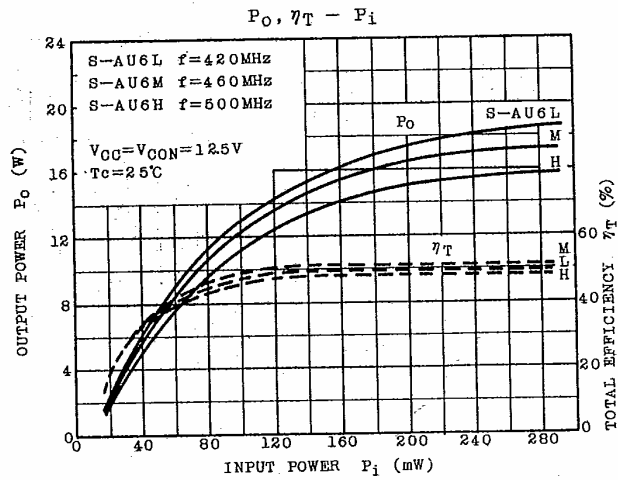
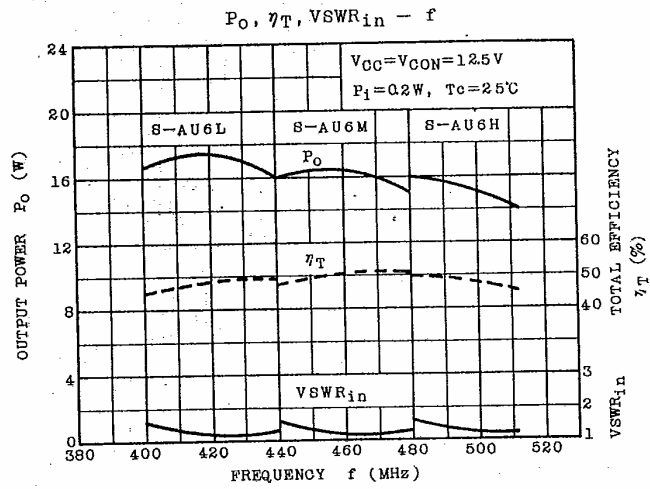


$C_1, C_3 : 15000\text{pF}$

$C_2, C_4 : 1\mu\text{F}$

$L_1, L_2 : \varnothing 0.8 \text{ COPPER WIRE ST, 5 ID}$

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