

## TOSHIBA RF POWER AMPLIFIER MODULE

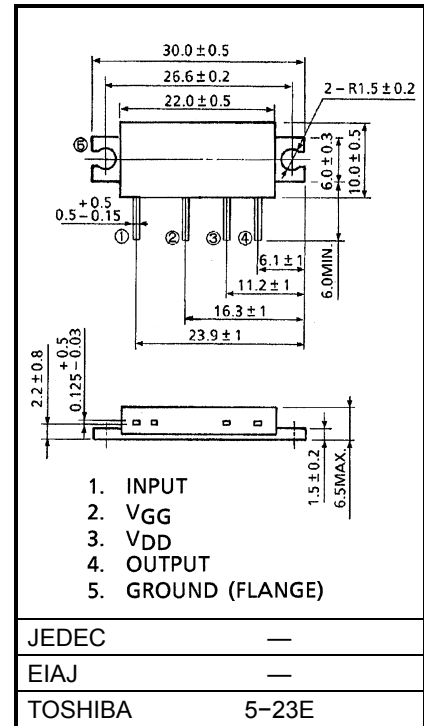
# S-AU50L

UHF BAND FM POWER AMPLIFIER MODULE  
HAND-HELD TRANSCEIVER

Unit in mm

### MAXIMUM RATINGS (T<sub>c</sub> = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V <sub>DD</sub>	17	V
DC Supply Voltage	V <sub>GG</sub>	6	V
Input Power	P <sub>i</sub>	150	mW
Output Power	P <sub>o</sub>	12	W
Total Current	I <sub>T</sub>	3	A
Operating Case Temperature Range	T <sub>c</sub> (opr)	-30~100	°C
Storage Temperature Range	T <sub>stg</sub>	-40~110	°C



Weight: 3.5g

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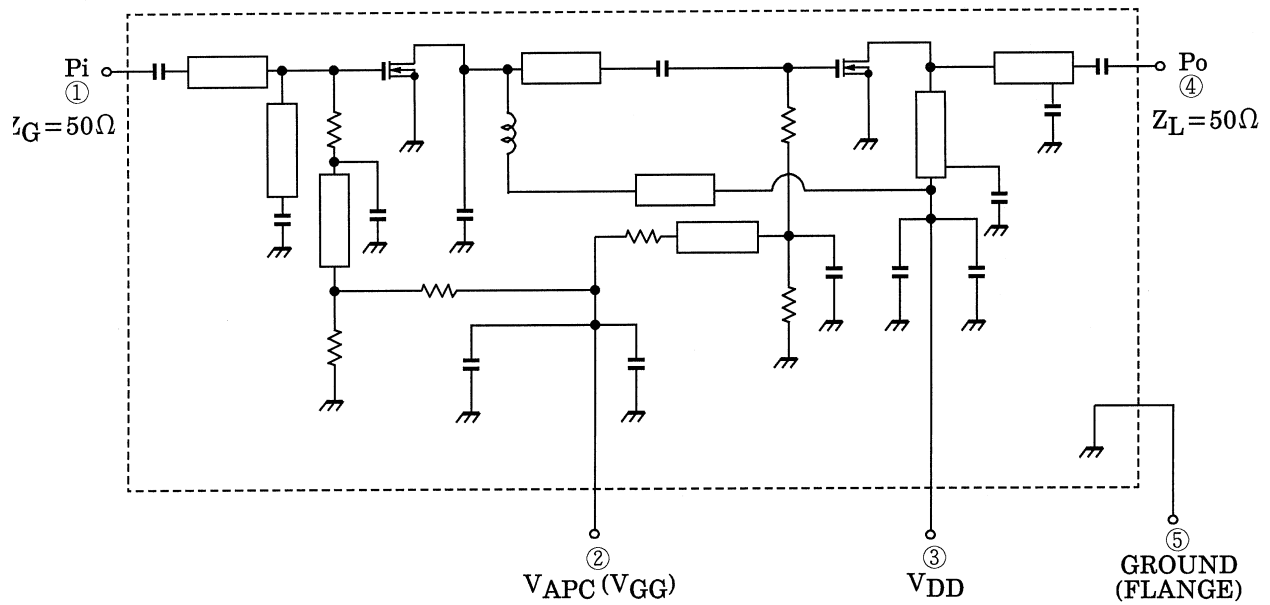
ELECTRICAL CHARACTERISTICS ( $T_c = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	$f_{\text{range}}$	—	400	—	430	MHz
Output Power	$P_o$	$V_{DD} = 9.6\text{V}$ , $V_{GG} = 4\text{V}$ $P_i = 50\text{mW}$ , $Z_G = Z_L = 50\Omega$	7	—	—	W
Power Gain	$G_p$		21.4	—	—	dB
Total Efficiency	$\eta_T$		40	—	—	%
Input VSWR	VSWR <sub>in</sub>		—	—	3.0	—
Harmonics	HRM		—	—	-30	dBc
Load Mismatch	—	$V_{DD} = 15\text{V}$ , $P_i = 50\text{mW}$ $P_o = 7\text{W}$ ( $V_{GG} = \text{adjust}$ ) VSWR LOAD 20: 1 ALL PHASE	No Degradation			—
Stability	—	$V_{DD} = 7.5\sim 11.5\text{V}$ , $V_{GG} = 0\sim 4\text{V}$ $P_i = 50\text{mW}$ VSWR LOAD 3 : 1 ALL PHASE	All spurious output than 60dB below desired signal			—

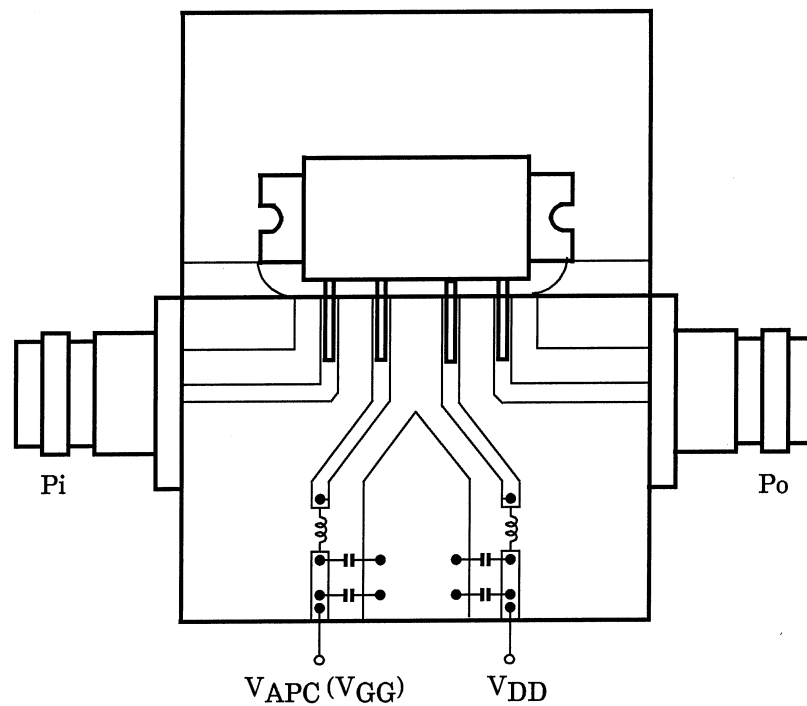
## CAUTION

- This product has intersetting cap. Please pay attention for exceeding stress and foreign matter in your application. And not to take away the cap.
- Do not intermingle with normal industrial or domestic waste.
- This product is electrostatic sensitivity, please handle with caution.

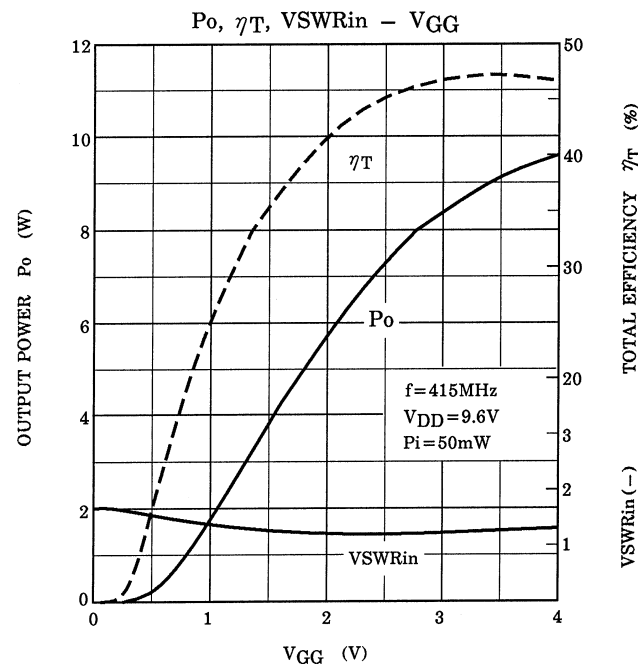
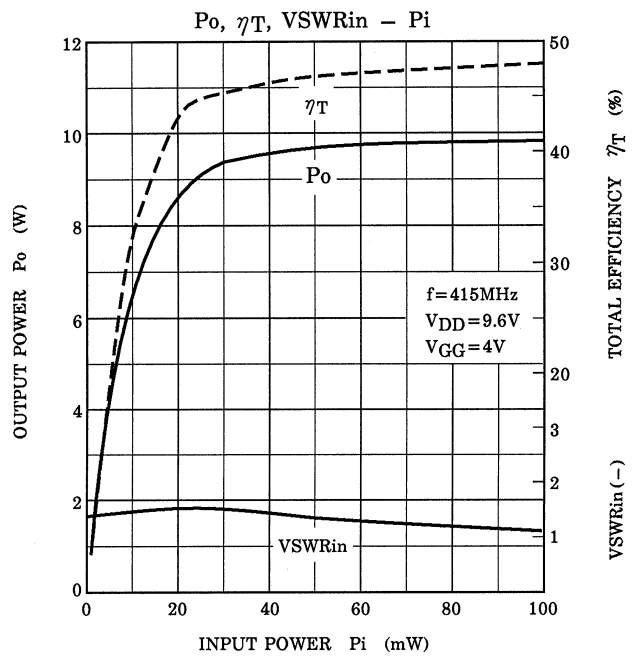
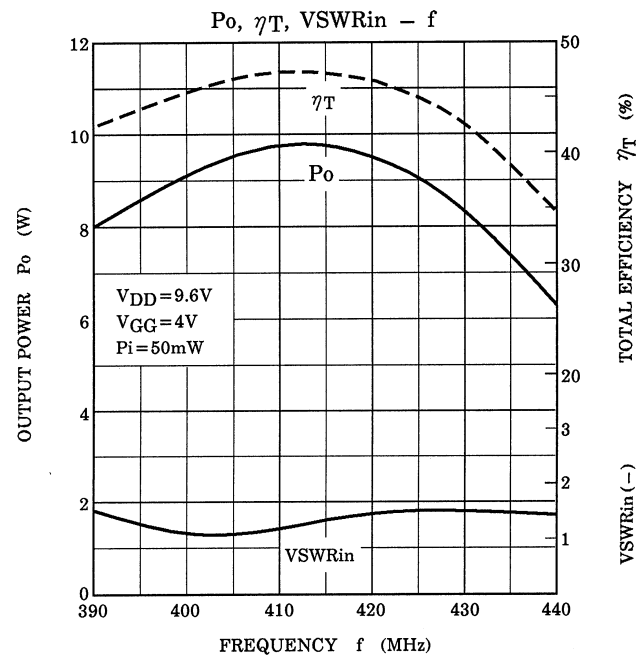
## SCHEMATIC



## TEST FIXTURE



C : 10000pF, 10 $\mu$ F PARALLEL  
 L :  $\phi 0.5$ , 3ID, 5T ENAMEL WIRE



CAUTION

These are only typical curves and devices are not necessarily guaranteed at these curves.