

TOSHIBA RF POWER AMPLIFIER MODULE

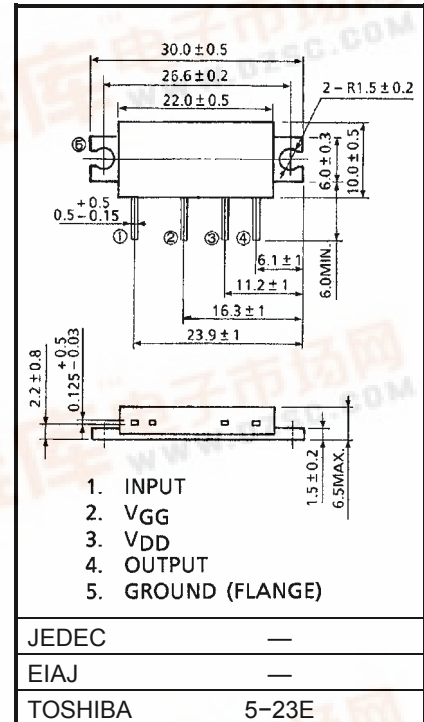
S-AU50H

UHF BAND FM POWER AMPLIFIER MODULE
HAND-HELD TRANSCEIVER

Unit in mm

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V _{DD}	17	V
DC Supply Voltage	V _{GG}	6	V
Input Power	P _i	150	mW
Output Power	P _o	12	W
Total Current	I _T	3	A
Operating Case Temperature Range	T _{c (opr)}	-30~100	°C
Storage Temperature Range	T _{stg}	-40~110	°C



Weight: 3.5g

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In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc..

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• The information contained herein is subject to change without notice.



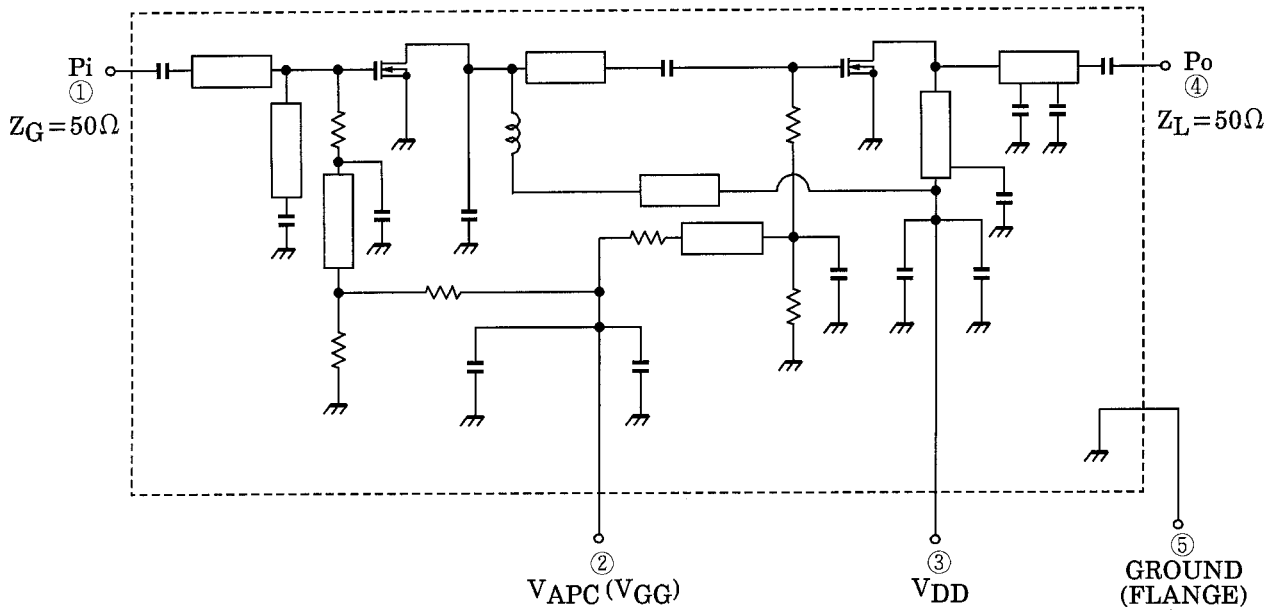
ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f _{range}	—	470	—	520	MHz
Output Power	P _o	V _{DD} = 9.6V, V _{GG} = 4V P _i = 50mW, Z _G = Z _L = 50Ω	6.5	—	—	W
Power Gain	G _p		21.1	—	—	dB
Total Efficiency	η _T		40	—	—	%
Input VSWR	VSWR _{in}		—	—	4.5	—
Harmonics	HRM		—	—	-30	dBc
Load Mismatch	—		V _{DD} = 15V, P _i = 50mW P _o = 7W (V _{GG} = adjust) VSWR LOAD 20 : 1 ALL PHASE	No Degradation		
Stability	—	V _{DD} = 7.5~11.5V, V _{GG} = 0~4V P _i = 50mW VSWR LOAD 3: 1 ALL PHASE	All spurious output than 60dB below desired signal			—

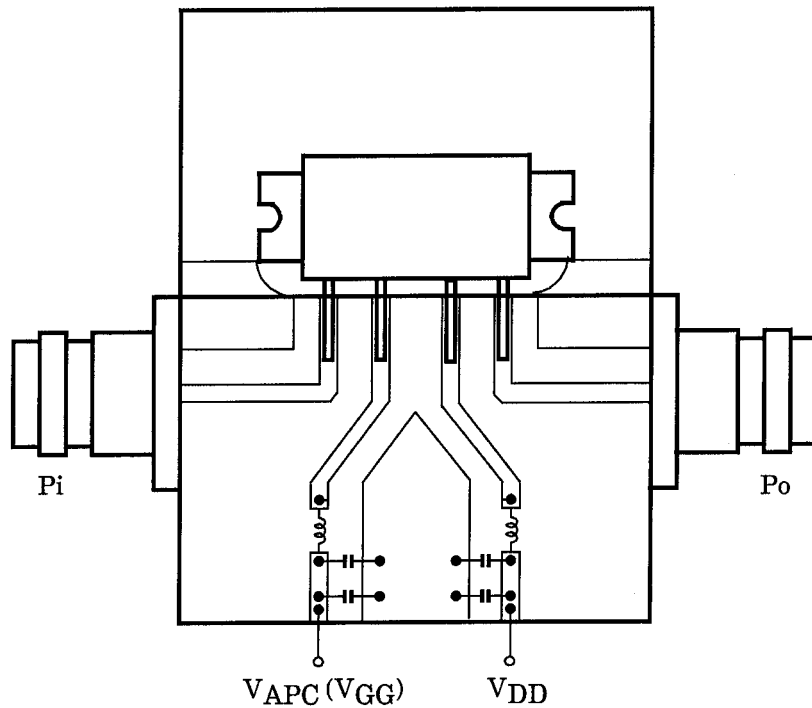
CAUTION

- 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.

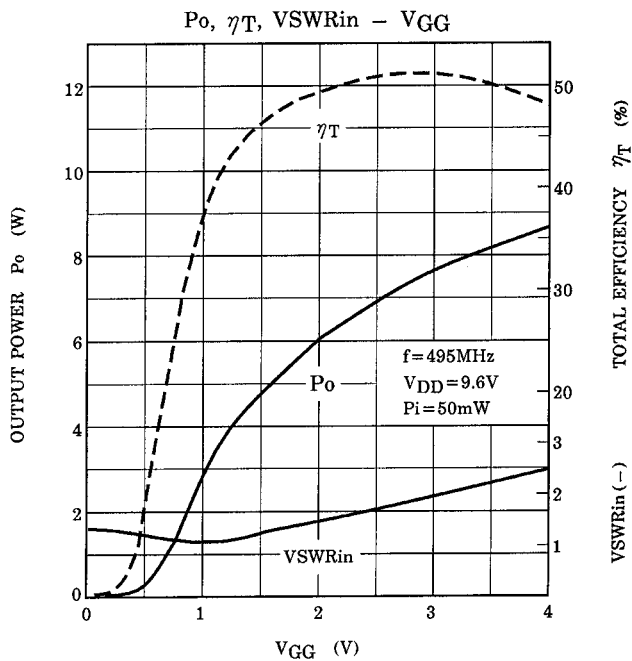
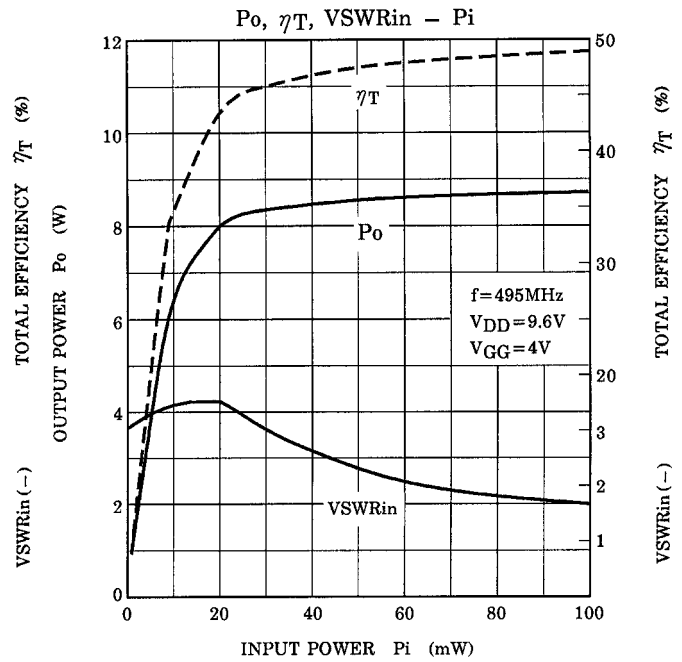
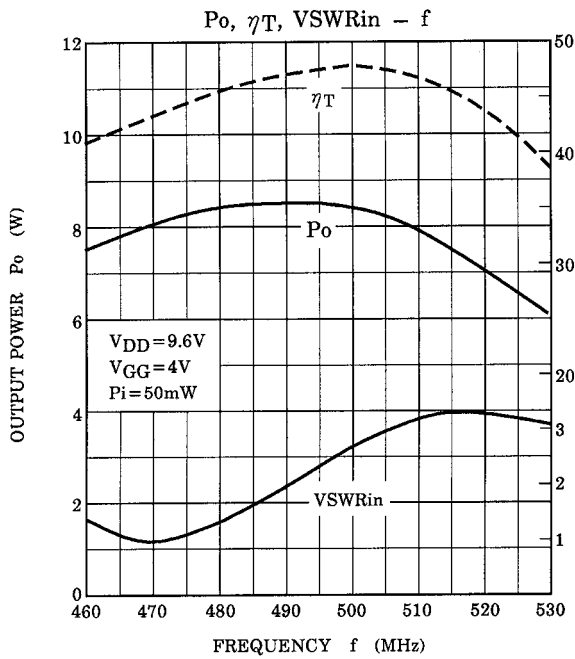
SCHEMATIC



TEST FIXTURE



C : 10000pF, 10 μ F PARALLEL
 L : ϕ 0.5, 3ID, 5T ENAMEL WIRE



CAUTION

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