

TOSHIBA RF POWER AMPLIFIER MODULE

S - A U 5 0 M

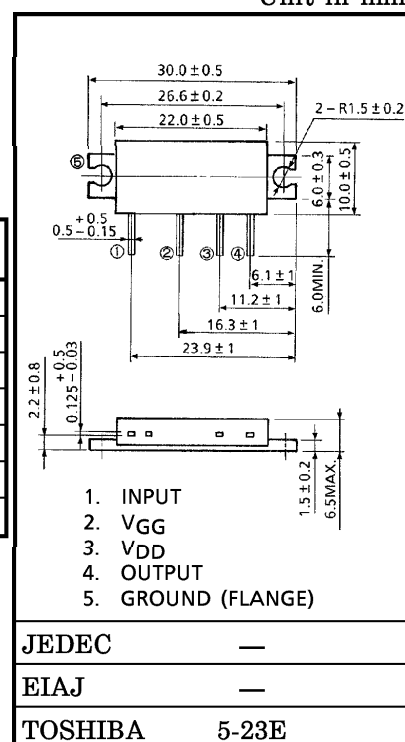
UHF BAND FM POWER AMPLIFIER MODULE

HAND-HELD TRANSCEIVER

Unit in mm

MAXIMUM RATINGS (T_c = 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



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

Weight : 3.5g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f_{range}	—	430	—	480	MHz
Output Power	P_o	$V_{DD}=9.6V$, $V_{GG}=4V$ $P_i=50mW$, $Z_G=Z_L=50\Omega$	7	—	—	W
Power Gain	G_p		21.4	—	—	dB
Total Efficiency	η_T		40	—	—	%
Input VSWR	VSWR _{in}		—	—	3.0	—
Harmonics	HRM		—	—	−25	dBc
Load Mismatch	—	$V_{DD}=15V$, $P_i=50mW$ $P_o=7W$ ($V_{GG}=\text{adjust}$) VSWR LOAD 20 : 1 ALL PHASE	No Degradation			—
Stability	—	$V_{DD}=7.5\sim 11.5V$, $V_{GG}=0\sim 4V$ $P_i=50mW$ VSWR LOAD 3 : 1 ALL PHASE	All spurious output than 60dB below desired signal			—

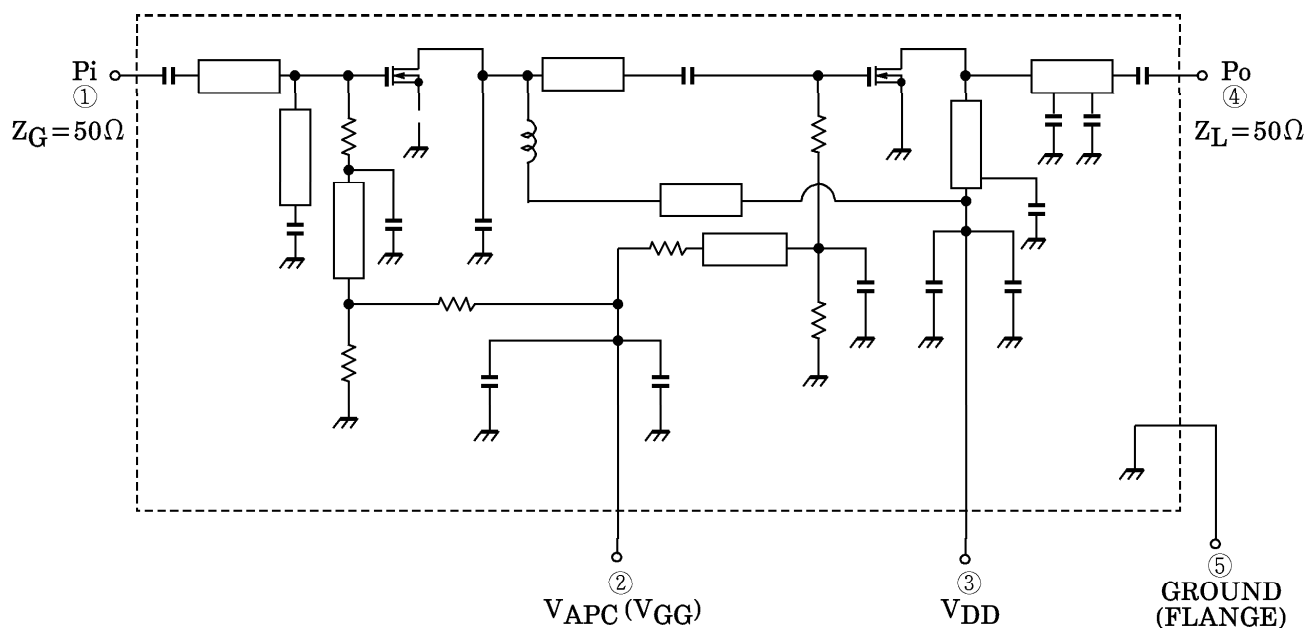
CAUTION

- 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.

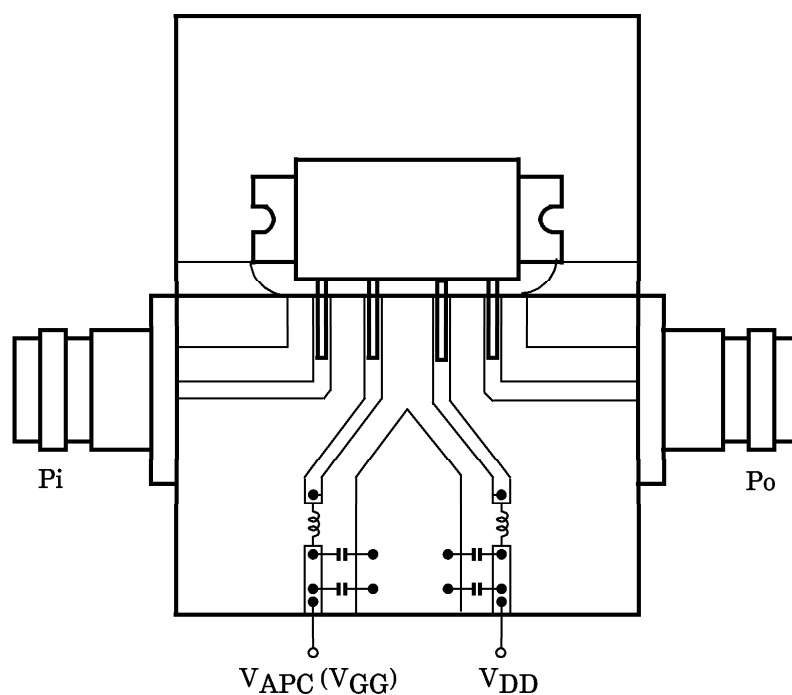
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SCHEMATIC



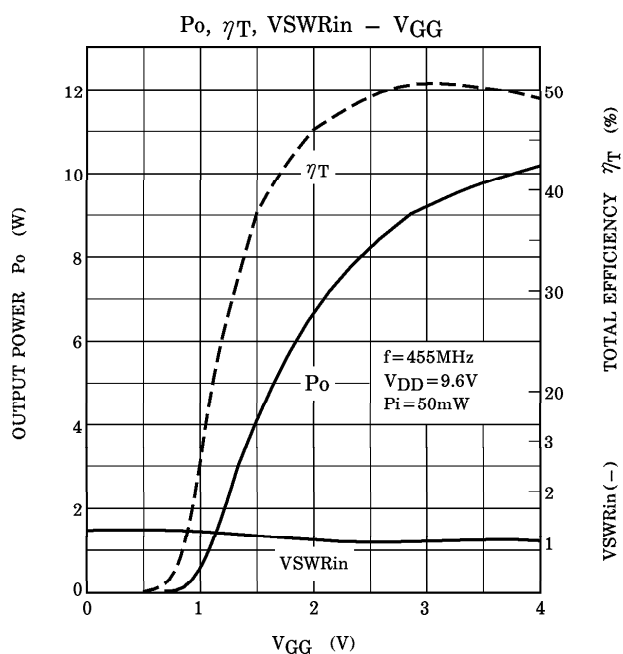
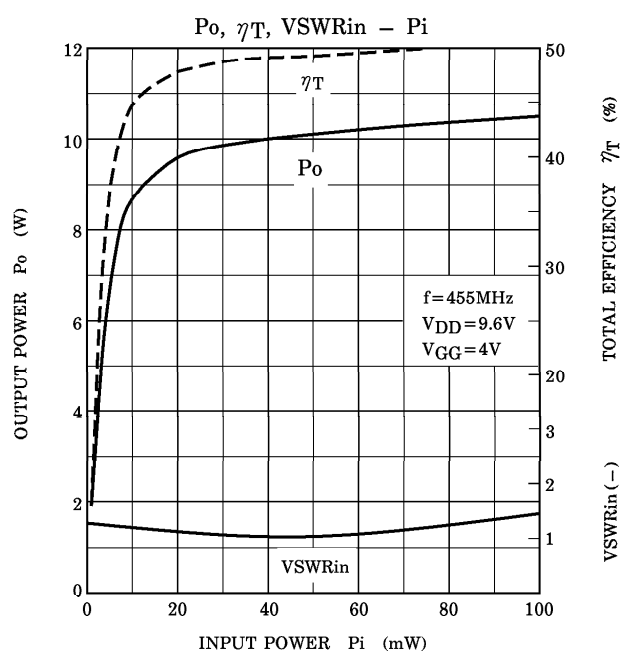
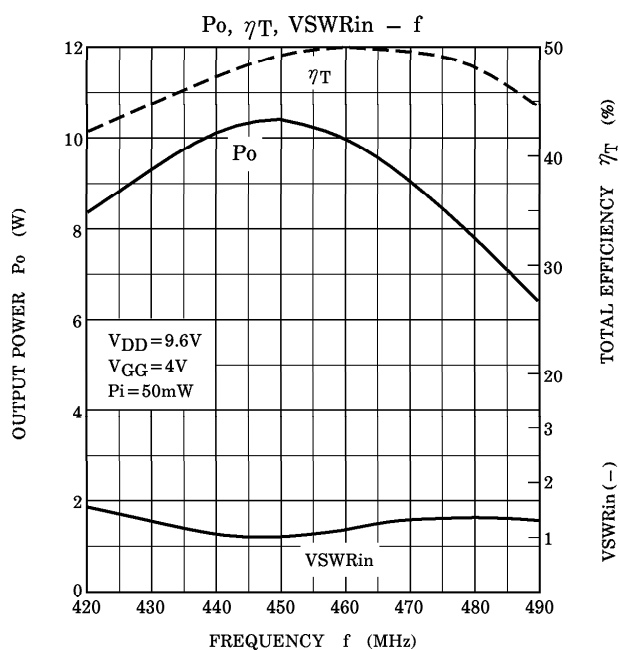
TEST FIXTURE



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

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CAUTION

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