

TOSHIBA RF POWER AMPLIFIER MODULE

S - A U 5 0 M

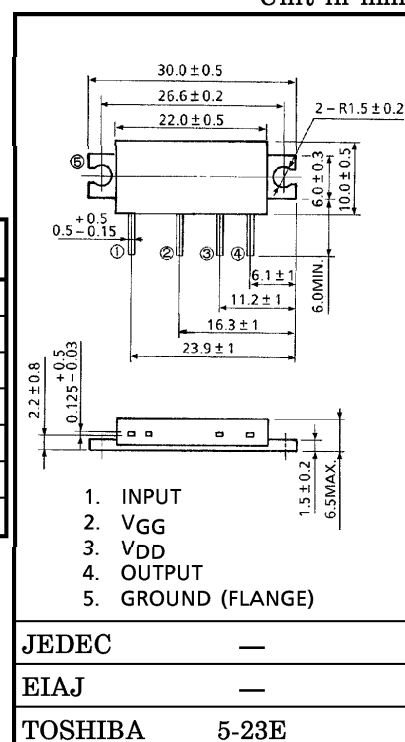
UHF BAND FM POWER AMPLIFIER MODULE

HAND-HELD TRANSCEIVER

Unit in mm

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

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	$T_{c(opr)}$	$-30 \sim 100$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40 \sim 110$	$^\circ\text{C}$

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	$V_{DD} = 9.6\text{V}$, $V_{GG} = 4\text{V}$ $P_i = 50\text{mW}$, $Z_G = Z_L = 50\Omega$	7	—	—	W
Power Gain	G_p		21.4	—	—	dB
Total Efficiency	η_T		40	—	—	%
Input VSWR	$VSWR_{in}$		—	—	3.0	—
Harmonics	HRM		—	—	-25	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			—

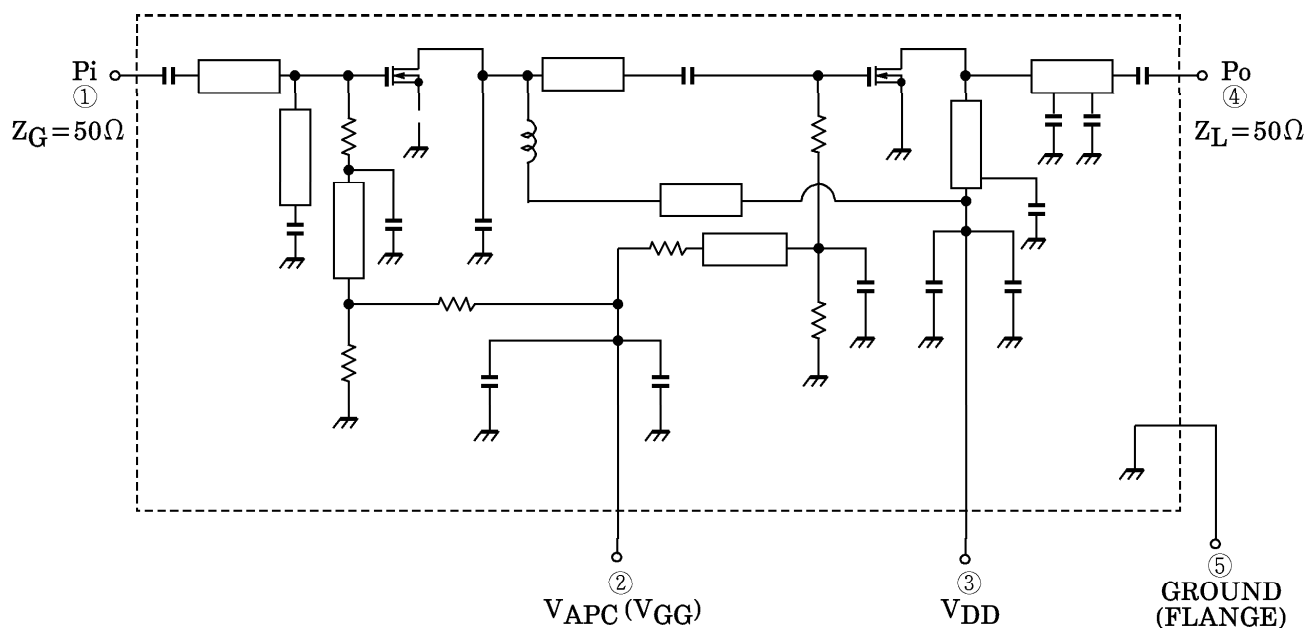
CAUTION

- 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.

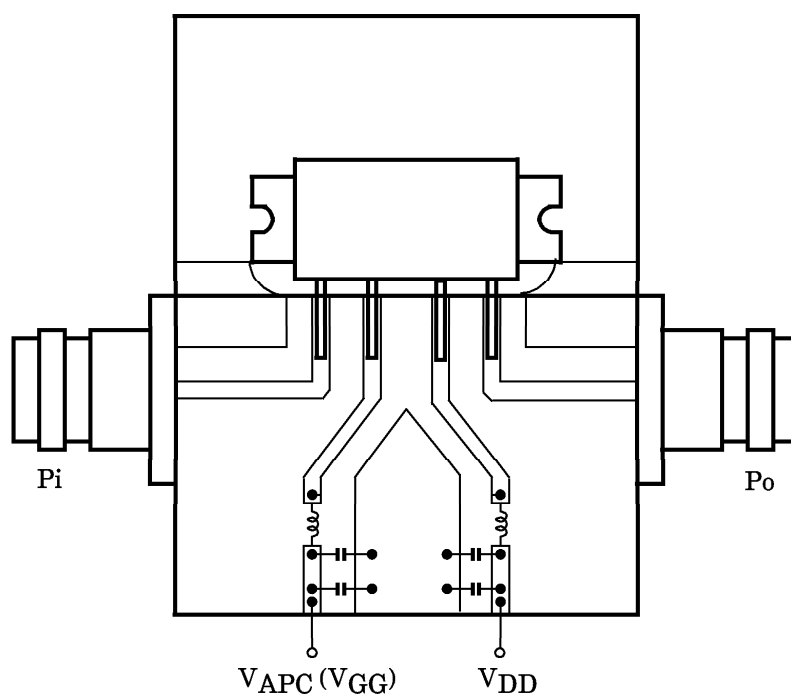
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SCHEMATIC



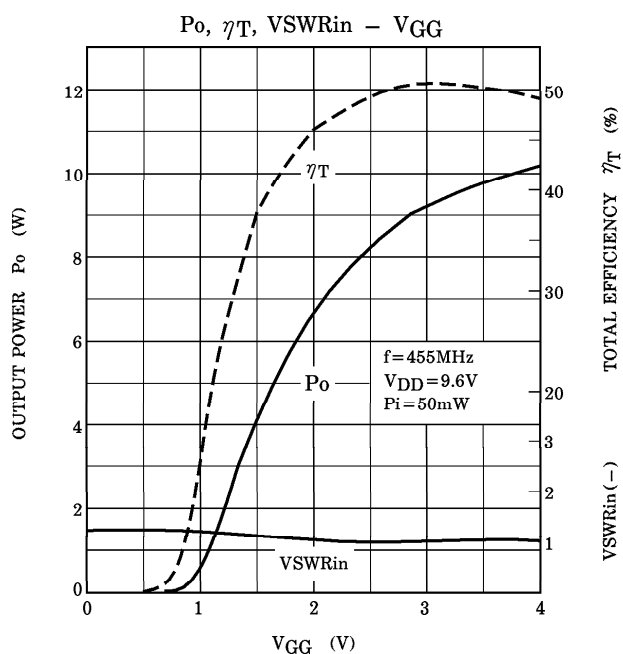
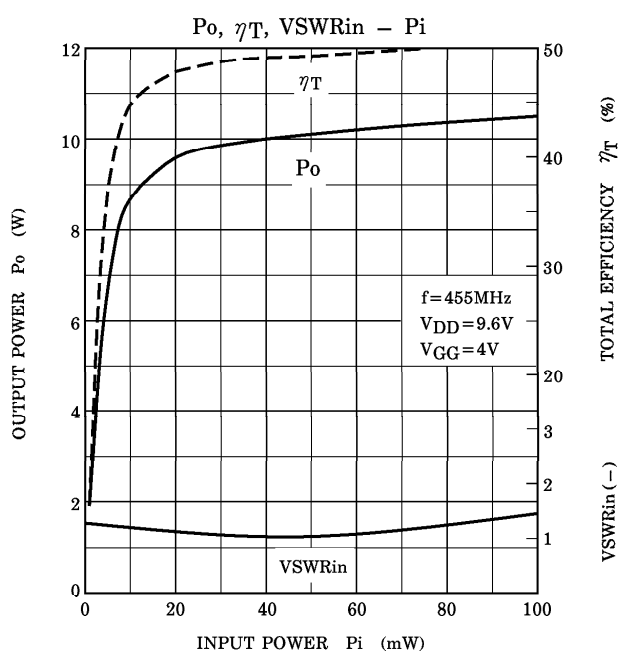
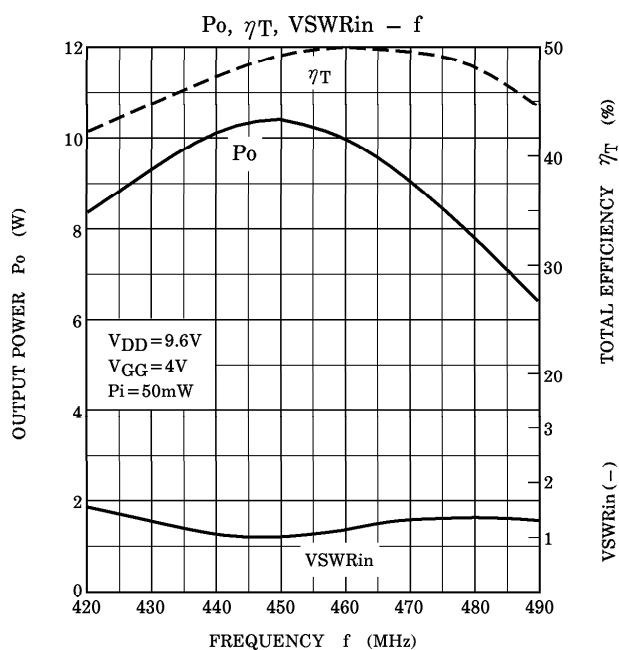
TEST FIXTURE



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.