

TOSHIBA

S-AV30H

TOSHIBA RF POWER AMPLIFIER MODULE

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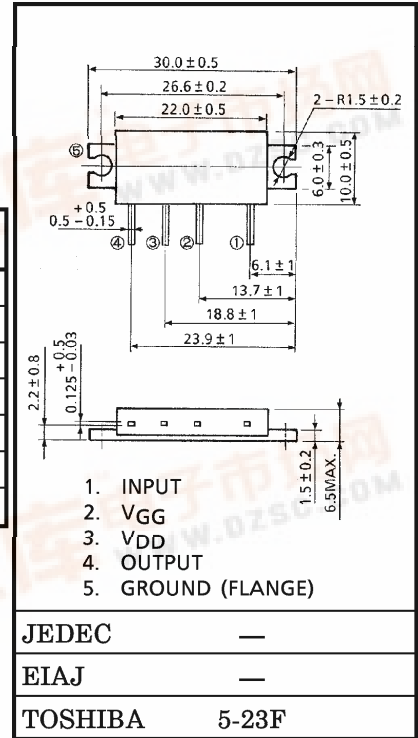
VHF BAND FM POWER AMPLIFIER MODULE

Unit in mm

HAND-HELD TRANSCEIVER

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	50	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 (Tc = 25°C)

Weight : 3.5g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f _{range}	—	144	—	174	MHz
Output Power (1)	P _o (1)	V _{GG} = 4V, P _i = 20mW	V _{DD} = 9.6V	7.0	—	W
Output Power (2)	P _o (2)	Z _G = Z _L = 50Ω	V _{DD} = 6.0V	2.8	—	
Power Gain	G _p	V _{DD} = 9.6V, V _{GG} = 4V P _i = 20mW, Z _G = Z _L = 50Ω	25.4	—	—	dB
Total Efficiency	η _T		48	—	—	%
Input VSWR	VSWR _{in}		—	—	2.5	—
Harmonics	HRM		—	—	-15	dB
Load Mismatch	—	V _{DD} = 15V, P _i = 20mW P _o = 7W (V _{GG} = adjust) VSWR LOAD 20 : 1 ALL PHASE	No Degradation			—
Stability	—	V _{DD} = 4~16V, V _{GG} = 0~4V P _i = 20mW VSWR LOAD 3 : 1 ALL PHASE	All spurious output than 60dB below desired signal			—

CAUTION

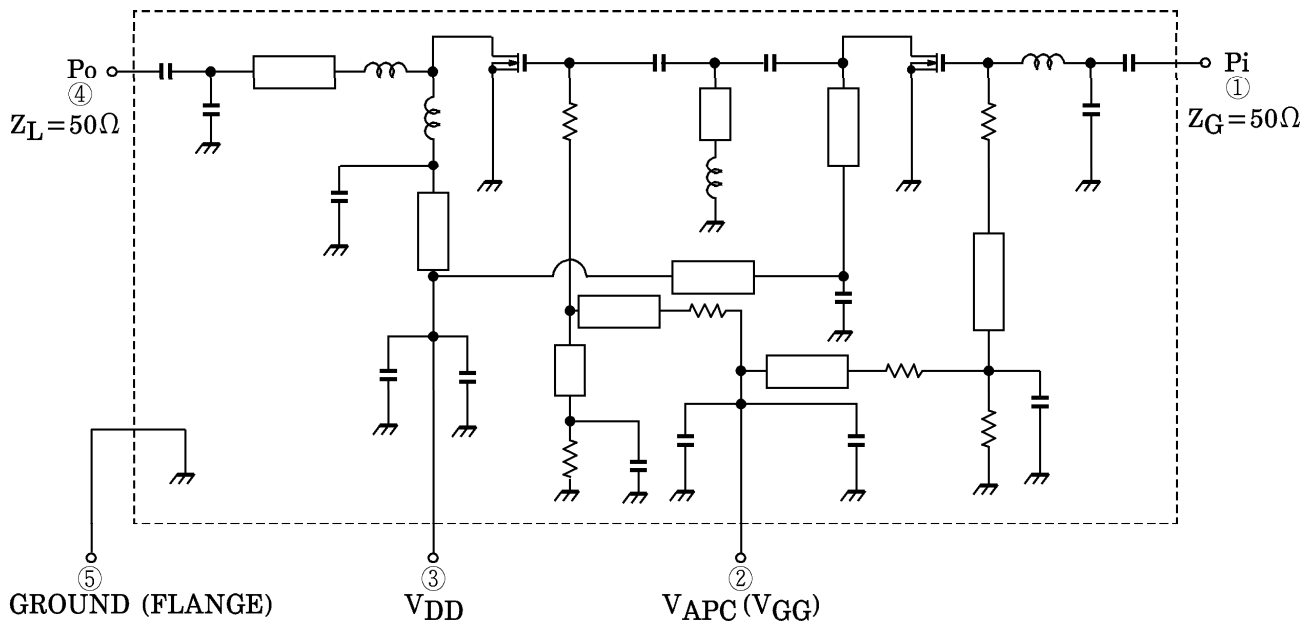
- This product has intersetting cap. Please pay attention for exceeding stress and foreign matter in your application. And not to take away the cap.
- Do not intermingle with normal industrial or domestic waste.
- This product is electrostatic sensitivity, please handle with caution.

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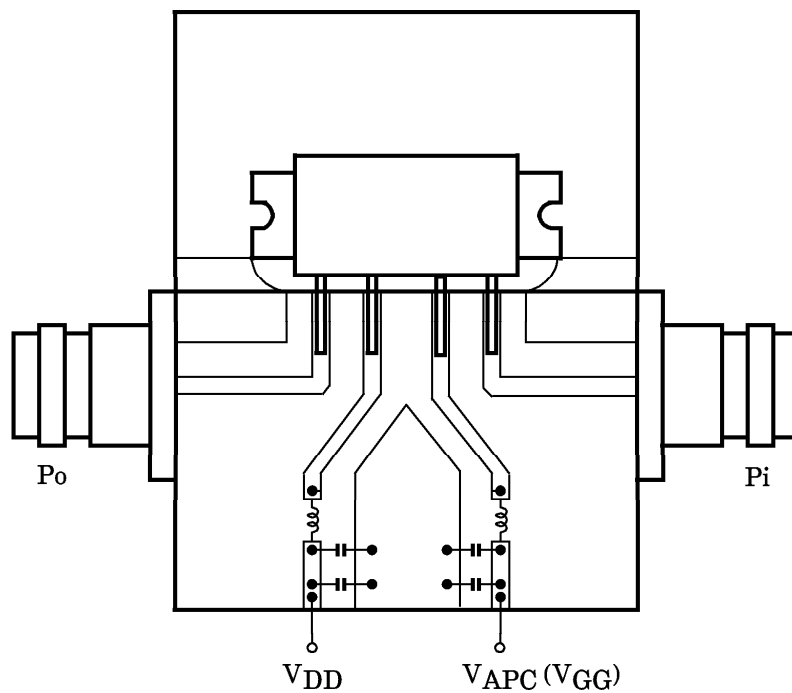
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SCHEMATIC



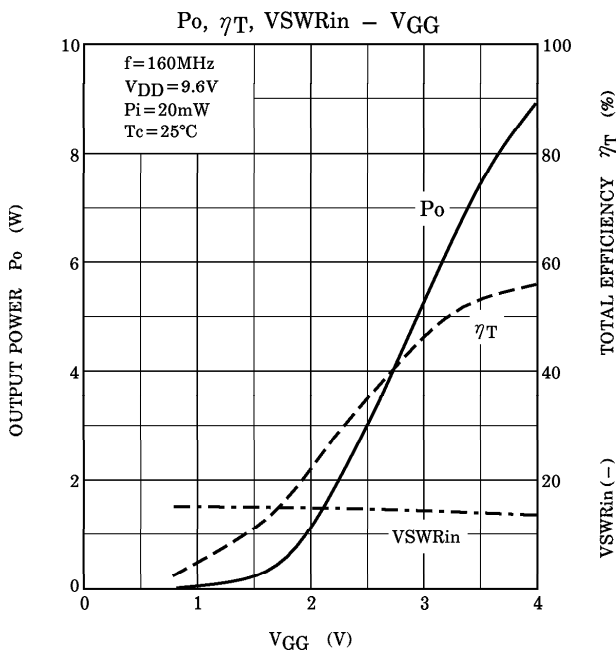
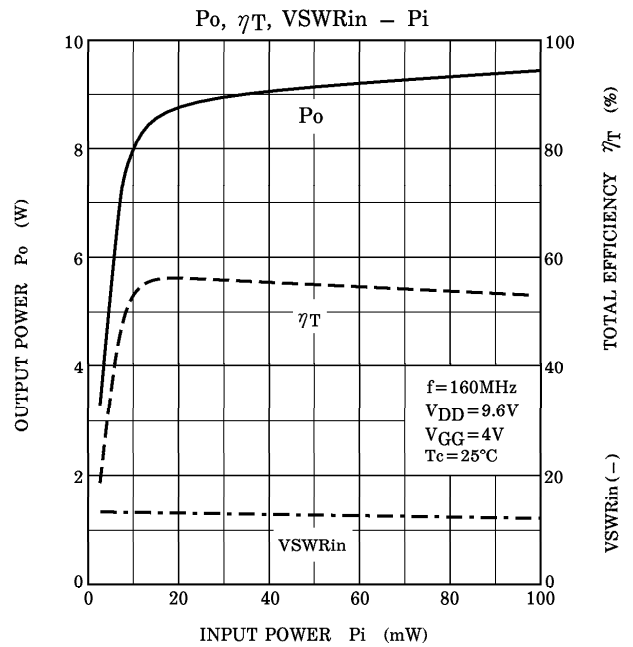
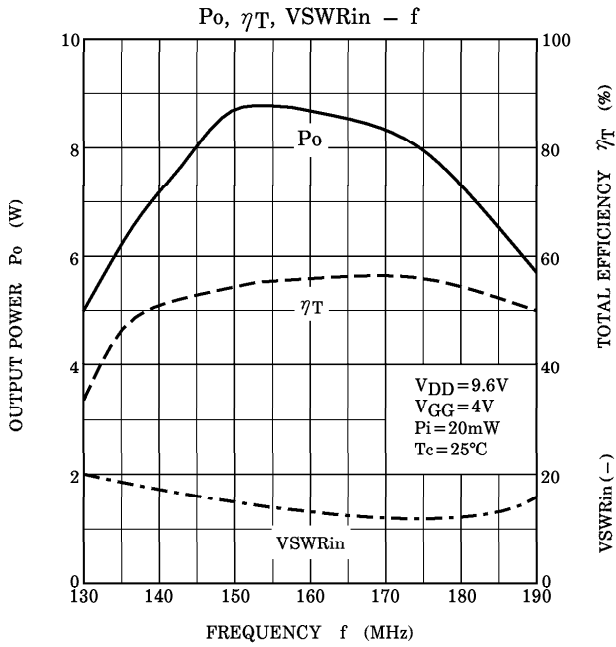
TEST FIXTURE



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.