

TOSHIBA RF POWER AMPLIFIER MODULE

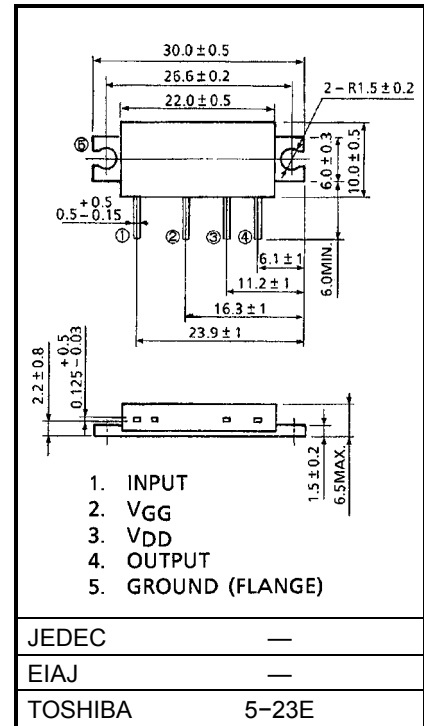
**S-AU68M**

UHF BAND FM POWER AMPLIFIER MODULE

Unit in mm

**MAXIMUM RATINGS (Tc=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>	50	mW
Output Power	P <sub>o</sub>	12	W
Total Current	I <sub>T</sub>	3	A
Operating Case Temperature Range	T <sub>c (opr)</sub>	-30~100	°C
Storage Temperature Range	T <sub>stg</sub>	-40~110	°C



Weight: 3.5g

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

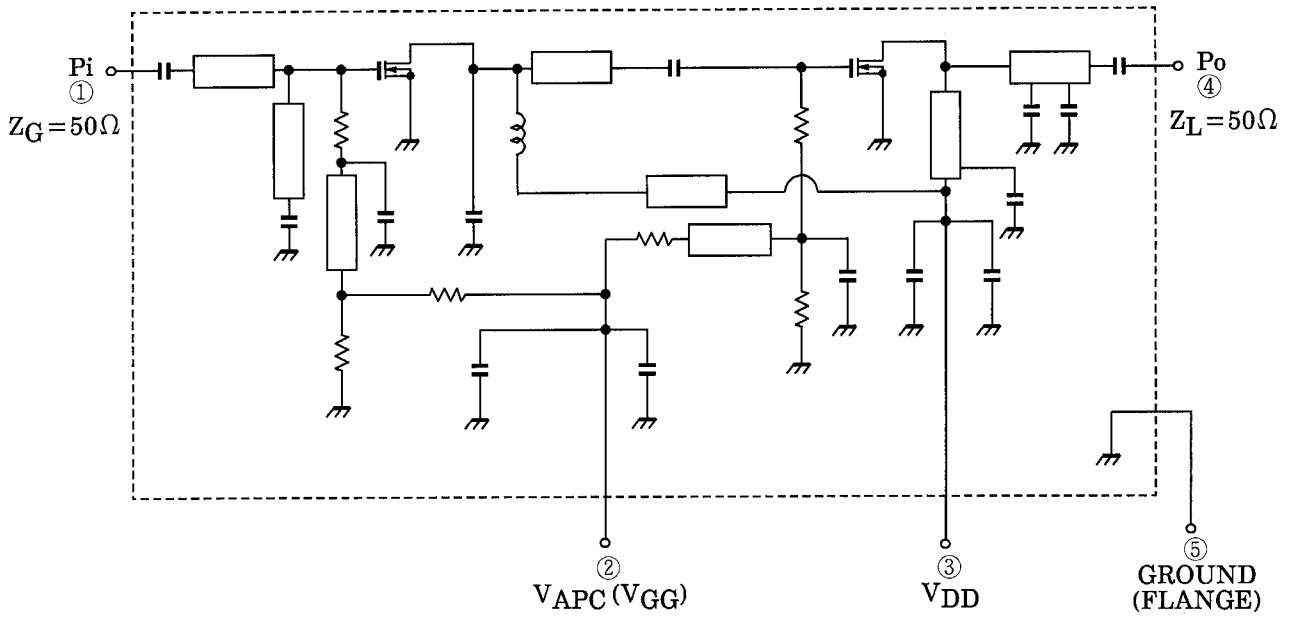
## ELECTRICAL CHARACTERISTICS (Tc=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Frequency Range	$f_{range}$	—	450	—	470	MHz	
Output Power (1)	Po (1)	V <sub>GG</sub> = 4V, Pi = 20mW Z <sub>G</sub> =Z <sub>L</sub> =50Ω	V <sub>DD</sub> =9.6V	7	—	—	W
Output Power (2)	Po (2)		V <sub>DD</sub> =6.0V	2.7	—	—	
Total Efficiency	$\eta_T$	V <sub>DD</sub> = 9.6V, Pi = 20mW P <sub>o</sub> = 7W (V <sub>GG</sub> = adjust) Z <sub>G</sub> = Z <sub>L</sub> = 50Ω		40	—	—	%
Input VSWR	VSWRin			—	—	2.5	—
Harmonics	HRM			—	—	-25	dB
Load Mismatch	—	V <sub>DD</sub> = 15V, Pi = 20mW P <sub>o</sub> = 7W (V <sub>GG</sub> = adjust) VSWR LOAD 20: 1 ALL PHASE	No Degradation			—	
Stability	—	V <sub>DD</sub> = 3.5~15.7V, V <sub>GG</sub> = 0~4V P <sub>o</sub> <12W, Pi = 20mW VSWR LOAD 3: 1 ALL PHASE	All spurious output than 60dB below desired signal			—	

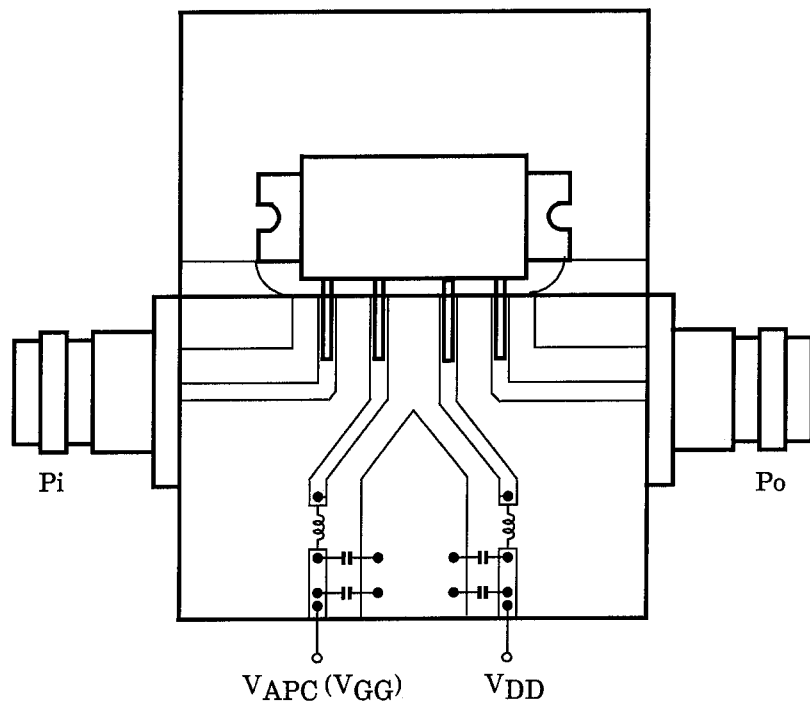
## CAUTION

- 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.

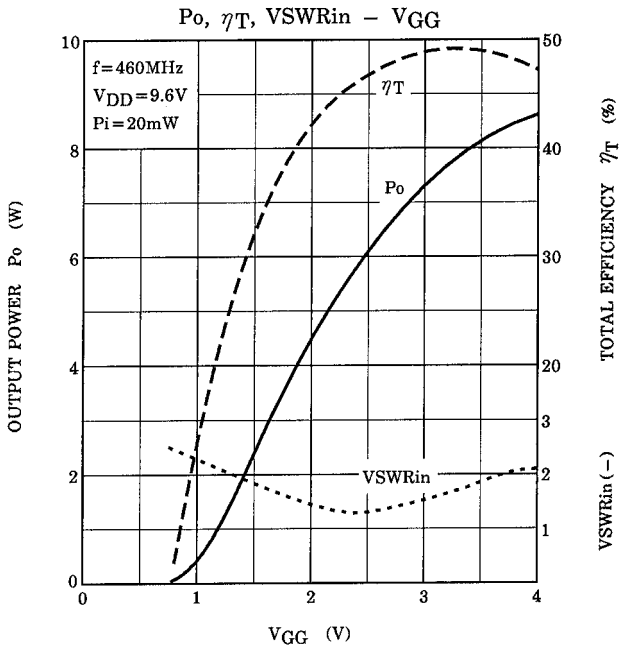
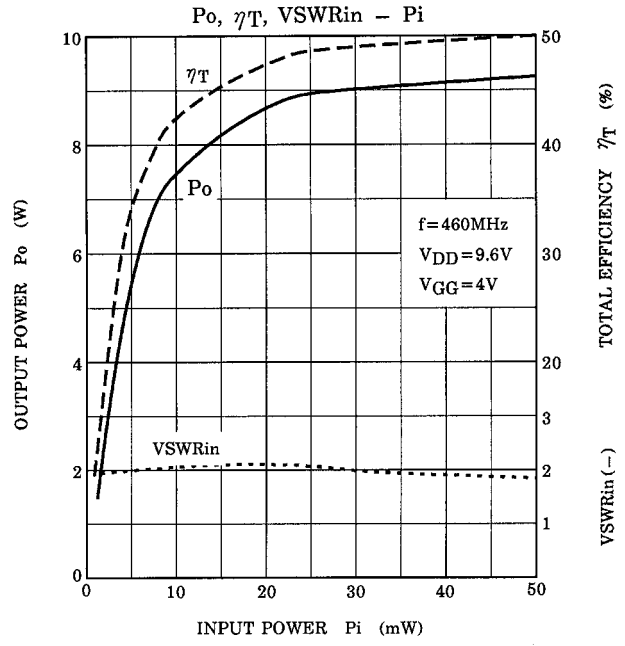
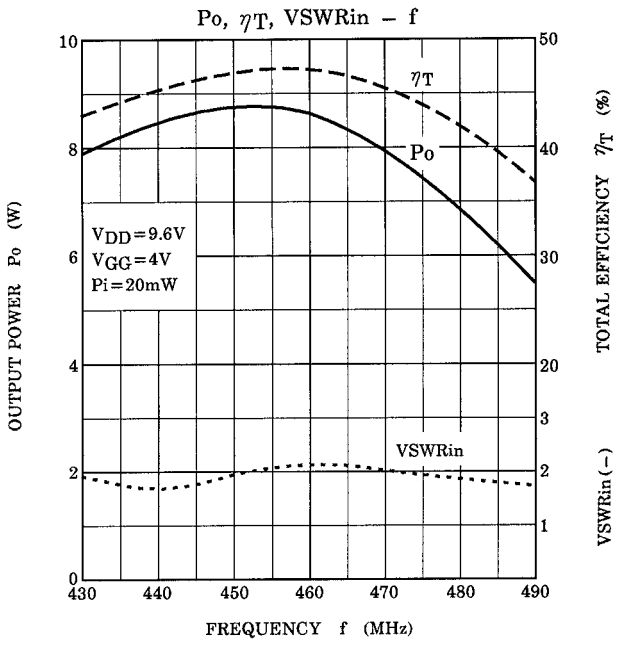
**SCHEMATIC**



**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.