

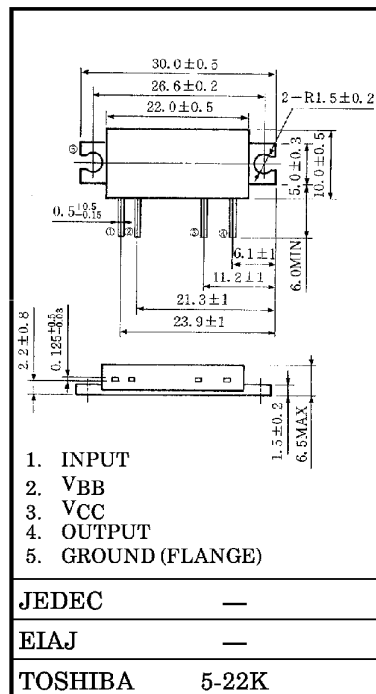
TOSHIBA RF POWER AMPLIFIER MODULE

**S-AV23AL, S-AV23AH, S-AV23AVH**

VHF POWER AMPLIFIER MODULE

Unit in mm

- S-AV23AL : f=135~150MHz
- S-AV23AH : f=150~163MHz
- S-AV23AVH : f=160~175MHz



MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V <sub>CC</sub>	11	V
DC Supply Voltage	V <sub>BB</sub>	6	V
Input Power	P <sub>i</sub>	400	mW
Operating Case Temperature Range	T <sub>c(opr)</sub>	-30~100	°C
Storage Temperature Range	T <sub>stg</sub>	-40~110	°C

ELECTRICAL CHARACTERISTICS (Tc = 25°C)

Weight : 3.5g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f <sub>range</sub>	—	135	—	175	MHz
Output Power	P <sub>o</sub>	P <sub>i</sub> = 200mW V <sub>CC</sub> = 7.5V, V <sub>BB</sub> = 5V Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	2.7	—	—	W
Power Gain	G <sub>p</sub>		11.3	—	—	dB
Total Efficiency	η <sub>T</sub>		35	—	—	%
Input VSWR	VSWR <sub>in</sub>		—	1.5	2.5	—
Harmonics	HRM	—	—	—	-20	dB
Load Mismatch	—	V <sub>CC</sub> = 9V V <sub>BB</sub> = 5V P <sub>i</sub> = 200mW VSWR load 20:1 all phase	No Degradation			—
Stability	—	V <sub>CC</sub> = 6~9V V <sub>BB</sub> = 5V P <sub>i</sub> = 200mW VSWR load 6:1 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.

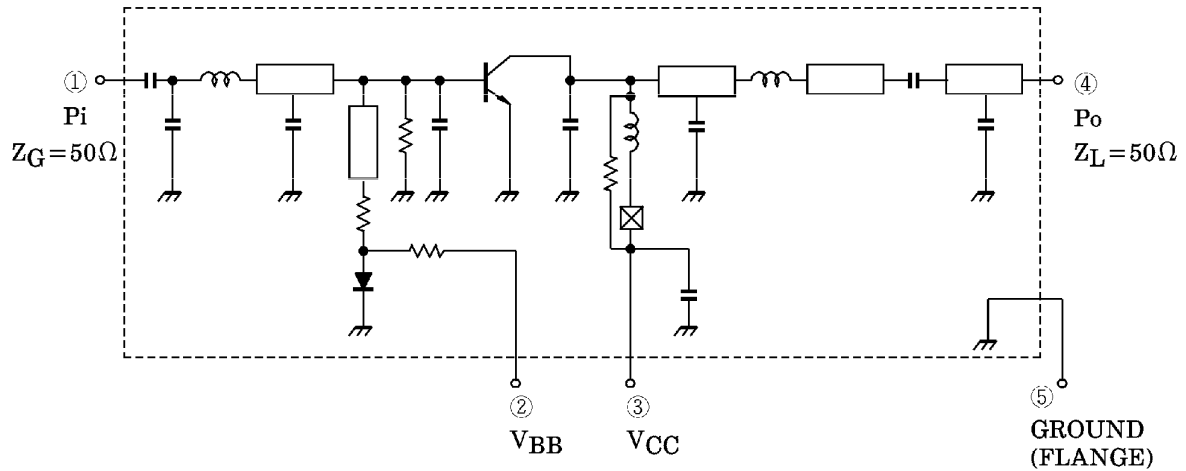
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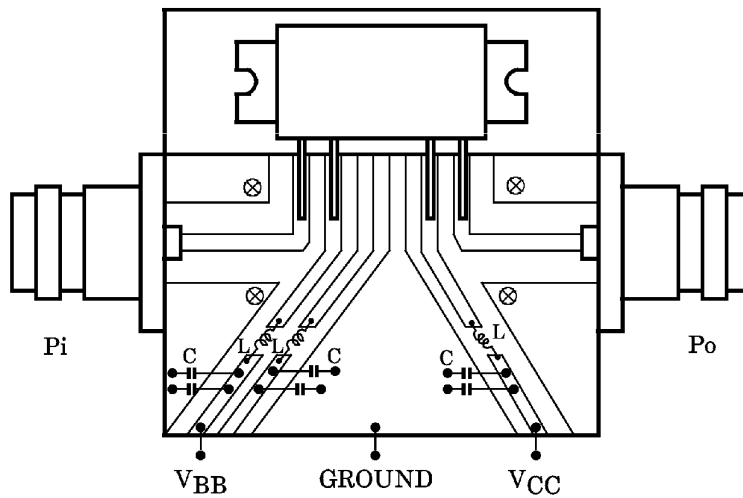
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**SCHEMATIC**

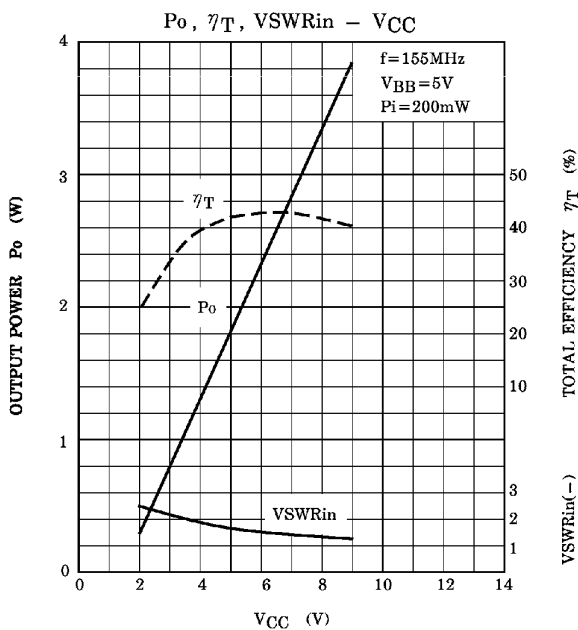
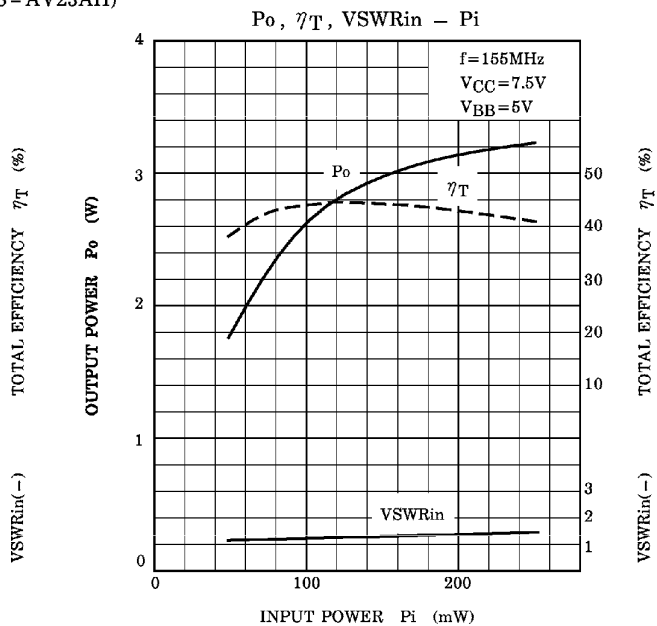
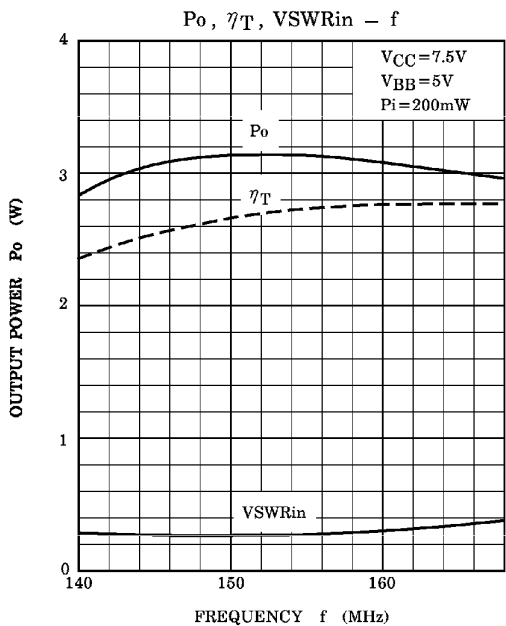


**TEST FIXTURE**



C : 22000pF, 10 $\mu$ F PARALLEL  
 L :  $\phi$ 0.5 ENAMEL WIRE 3ID, 5T

TYPICAL PERFORMANCE CURVE  
(S-AV23AH)



CAUTION

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