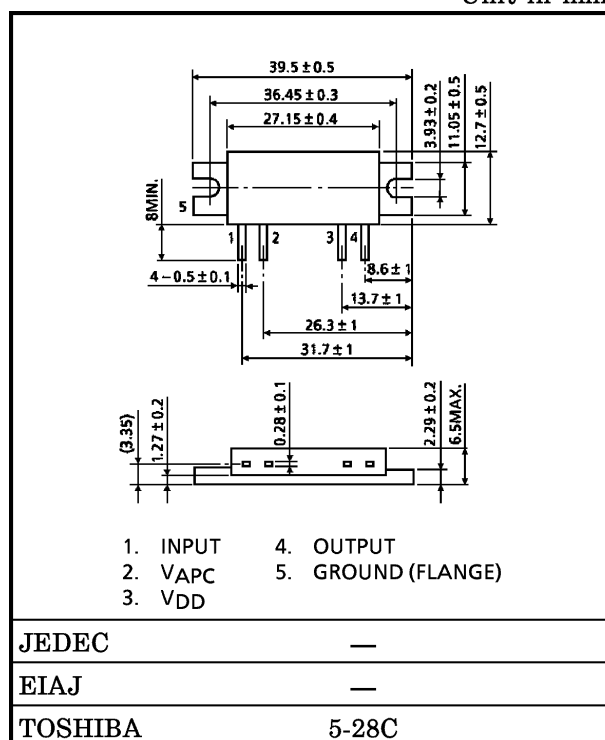


TOSHIBA RF POWER AMPLIFIER MODULE

S - A U 7 0

800MHz UHF POWER AMPLIFIER MODULE (AMPS)

Unit in mm



Weight : 18g

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V_{DD}	17	V
DC Supply Voltage	V_{APC}	9	V
Input Power	P_i	300	mW
Operating Case Temperature Range	$T_{c(opr)}$	$-30 \sim 110$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40 \sim 110$	$^\circ\text{C}$

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- TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.
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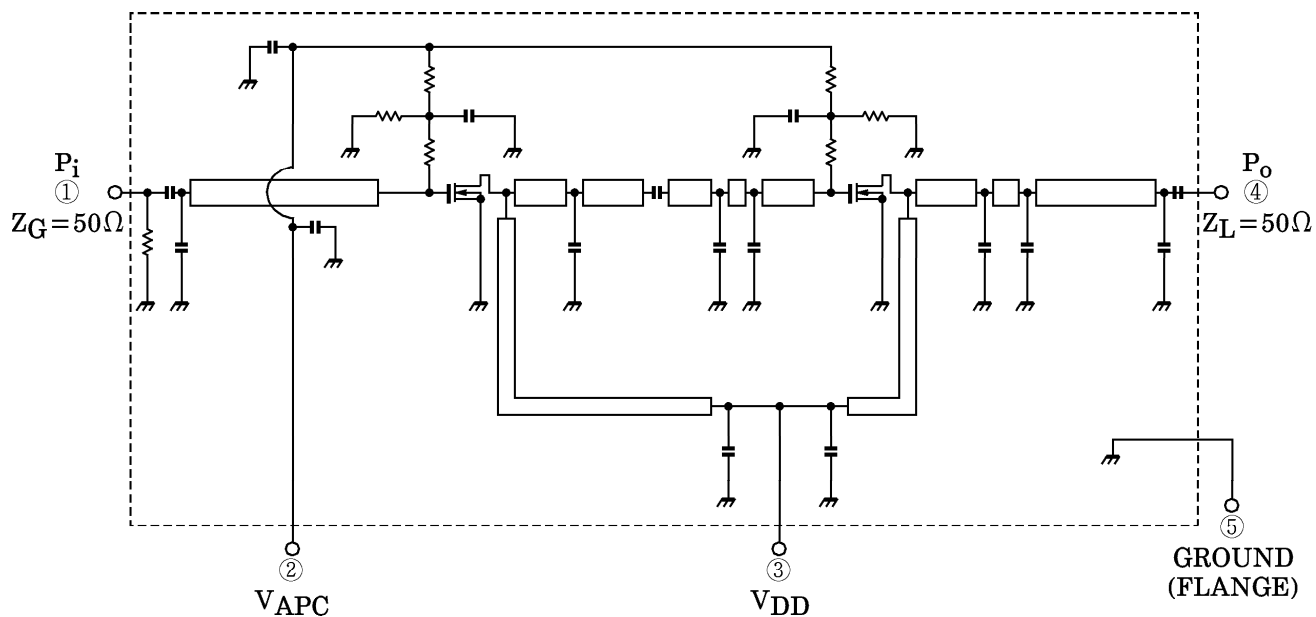
ELECTRICAL CHARACTERISTICS (T_c = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f_{range}	—	824	—	849	MHz
Output Power	P_o	$V_{DD}=13V$, $V_{APC}=7V$	7	—	—	W
Power Gain	G_p	$P_i=100mW$, $Z_G=Z_L=50\Omega$	18.5	—	—	dB
Total Efficiency	η_T	$V_{DD}=13V$, $P_i=100mW$	35	—	—	%
Input VSWR	$VSWR_{in}$	$P_o=6W$ ($V_{APC}=\text{adjust}$)	—	—	2.5	—
Harmonics	HRM	$Z_G=Z_L=50\Omega$	—	—	-25	dB
Load Mismatch	—	$V_{DD}=15V$, $P_i=100mW$ $P_o=6W$ ($V_{APC}=\text{adjust}$) VSWR LOAD 20 : 1 ALL PHASE	No Degradation			—
Stability	—	$V_{DD}=10\sim16.5V$ $V_{APC}=0\sim7V$ $P_i=0\sim200mW$ VSWR LOAD 3 : 1 ALL PHASE	All spurious output than 60dB below desired signal			—
TX Noise	—	$V_{DD}=13V$, $P_i=100mW$ $P_o=6W$ ($V_{APC}=\text{adjust}$) $f=f_c+45MHz$	—	—	-82	dBmW

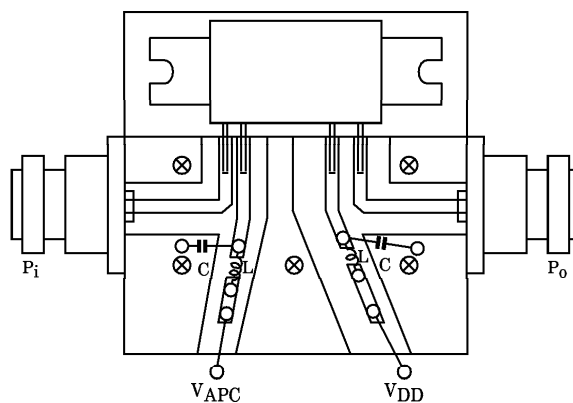
CAUTION

- 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.

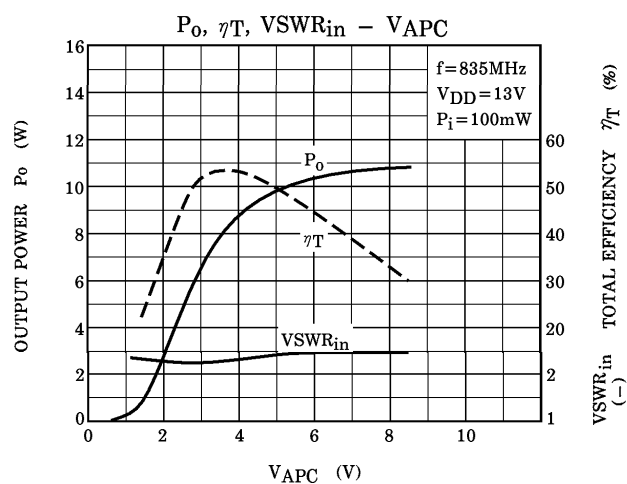
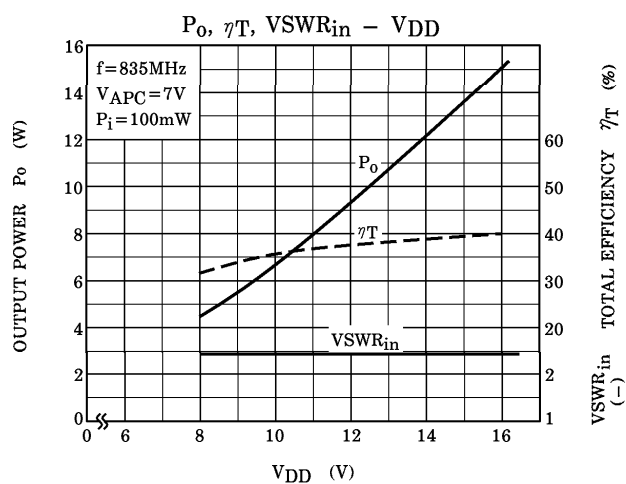
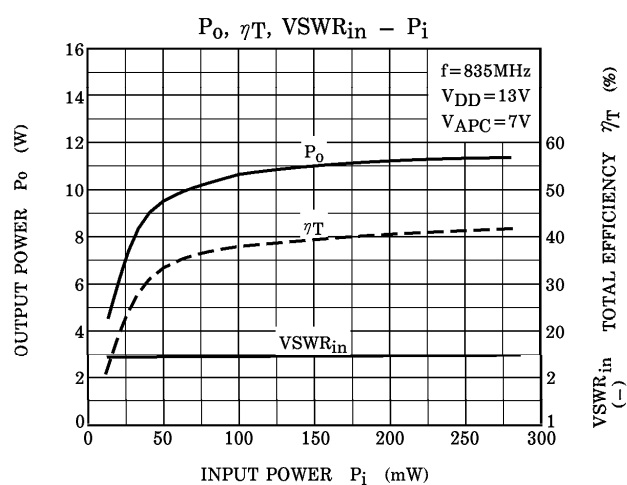
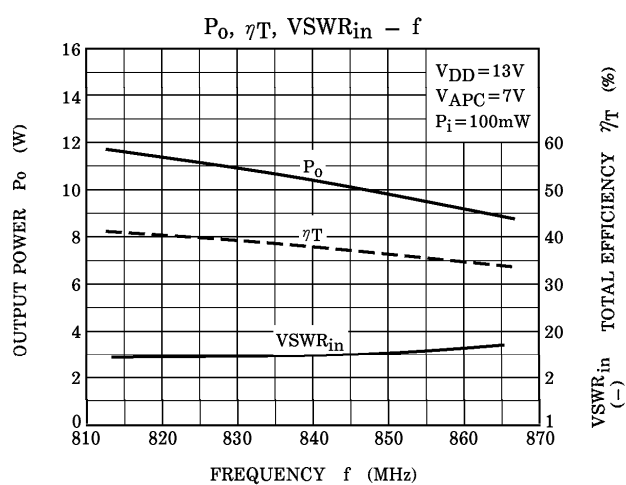
SCHEMATIC



TEST FIXTURE



C : 10000pF, 10 μ F PARALLEL
 L: ϕ 0.8 ENAMEL WIRE, 3ID, 5T



CAUTION

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