S-AU62

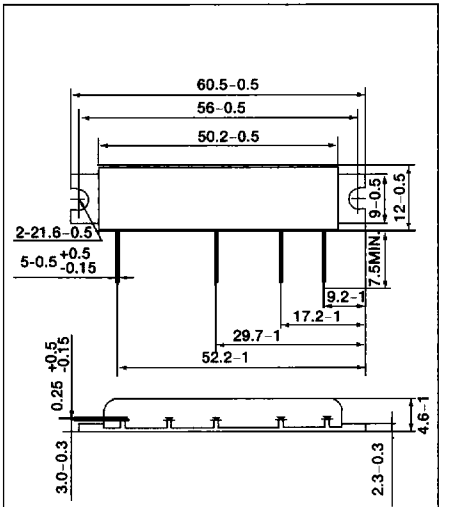
RF Power Amplifier Module

Unit in mm

800 MHz UHF Power Amplifier Module (USA Cellular Radio)

Features

- Built-in Driver Stage
- Output Power (6W) is Directly Gained by VCO(2mW)
- Output Power : Po ≥ 6W
- Minimum Gain : Gp = 34.7dB
- Efficiency : h_T ≥ 35%
- 50Ω Input/Output Impedance
- Guaranteed Stability
- Small Package



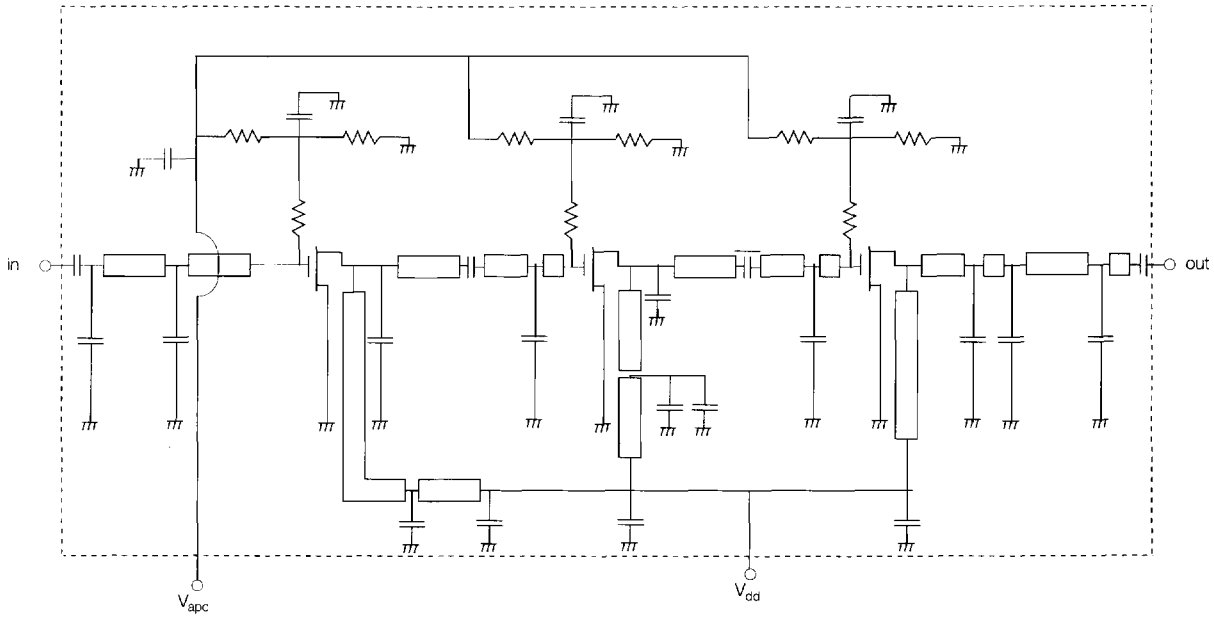
JEDEC	
EIAJ	
TOSHIBA	

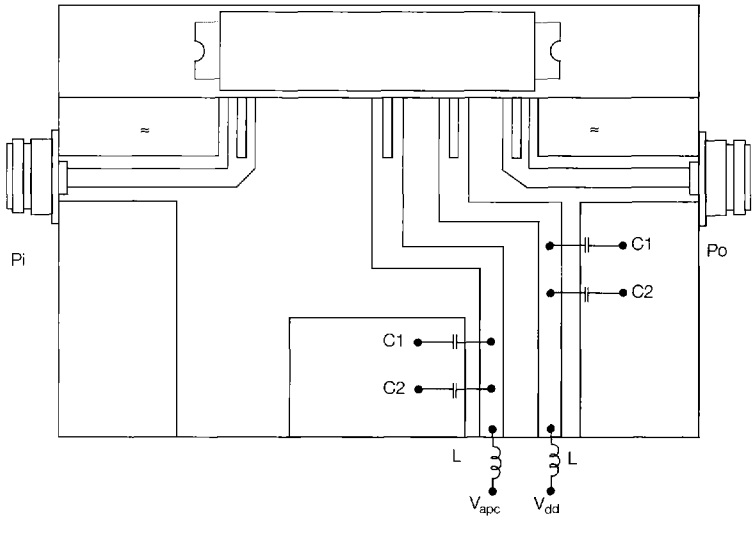
Absolute Maximum Ratings (Tc = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V_{APC}	6	V
DC Supply Voltage	V_{DD}	17	V
RF Input Power	P_i	6	mW
Operating Case Temperature Range	$T_{c(opr)}$	-30 ~ +100	∞C
Storage Temperature Range	T_{stg}	-40 ~ +110	∞C

Electrical Characteristics (Tc= 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Frequency Range	f_{range}		824	–	849	MHz
Output Power (1)	Po	Pi = 2mW, V_{APC} = 5V, V_{DD} = 12.5V, Zg = Z1 = 50Ω	6	–	–	W
Power Gain	G_P		37.4	–	–	dB
Total Efficiency	hT	Pi = 2mW, V_{APC} = adjust V_{DD} = 12.5V, Po = 6w	35	40	–	%
Input V_{SWR}	V_{SWR}in		–	–	3	–
Harmonics	HRM		–	–	-30	dB
Load Mismatch	–	Po = 6W, V_{DD} = 15V Pi = 2mW, V_{APC}=adjust V_{SWR} Load 20 : 1 all phone	No Degradation			–
Stability	–	V_{APC} = 0 ~ 5V V_{DD} = 10 ~ 16.5V Pi = 0.5 ~ 4mW V_{SWR} Load 3:1 all phase	All spurious output than 60dB below desired signal			–
Output Power	Po(2)	V_{APC} = 5V, V_{DD} = 10.8V Pi = 2mW, Zg = Z_L = 50Ω	4			W





C1: 47.00pF
C2: 10μF
L: f0.8enamel,5T,3ID