

PF0008

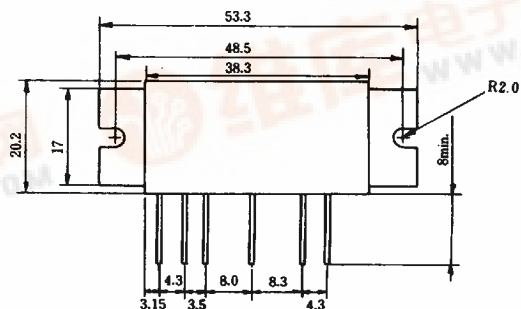
HITACHI/(OPTOELECTRONICS) 急出货 61E D

HIGH FREQUENCY POWER MOS FET MODULE

UHF Band 865-890 MHz

FEATURES

- Include Input and Output Matching Circuit
- Easy to Control Output Power
- Superior to Stability at Load Mismatching



- ① Pin
- ② V_{APC1}
- ③ V_{DD1}
- ④ V_{APC2}
- ⑤ V_{DD2}
- ⑥ Pout
- ⑦ GND

(Dimensions in mm)

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

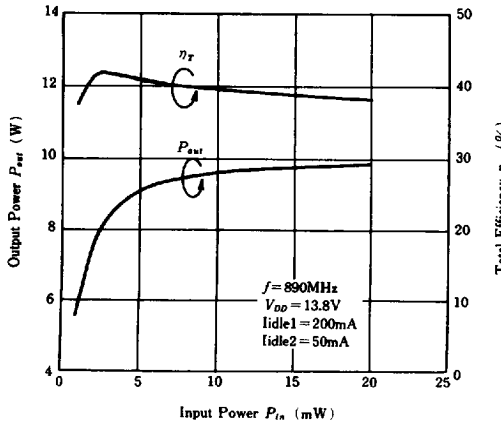
Item	Symbol	Rating	Unit
Supply Voltage	V _{DD}	17	V
Maximum Circuit Current	I _D	3.0	A
APC Voltage	V _{APC}	±8	V
Maximum Input Power	P _{in}	30	mW
Operating Maximum Case Temperature	T _{c(op)}	0 ~ +80	°C
Storage Temperature	T _{stg}	-10 ~ +100	°C

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

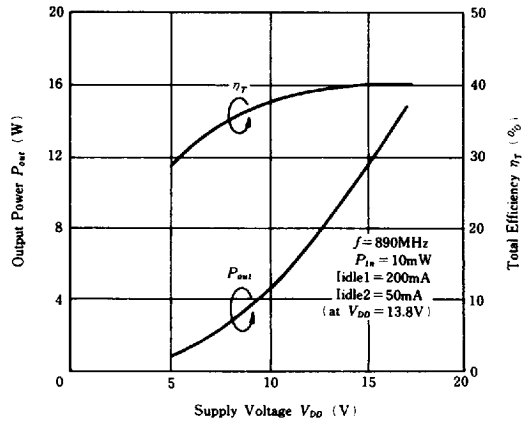
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain Cutoff Current	I _{DS}	V _{DD1} = V _{DD2} = 17V, V _{APC1} = V _{APC2} = 0	—	—	500	μA
Output Power	P _{out}	f = 865, 890MHz	8.0	9.0	—	W
Total Efficiency	η _{r(1)}	P _{in} = 10mW	35	40	—	%
2nd Harmonic Distortion	2nd H.D.	V _{DD1} = V _{DD2} = 13.8V	—	-50	-30	dB
3rd Harmonic Distortion	3rd H.D.	I _{idle1} = 200mA	—	-40	-30	dB
Input VSWR	VSWR(in)	I _{idle2} = 50mA	—	1.5	3.0	—
Output VSWR	VSWR(out)	Z _{in} = Z _{out} = 50Ω	—	1.5	—	—
Total Efficiency	η _{r(2)}	f = 865, 890MHz, P _{in} = 10mW, P _{out} = 8W (at APC Control), Z _{in} = Z _{out} = 50Ω	35	40	—	%

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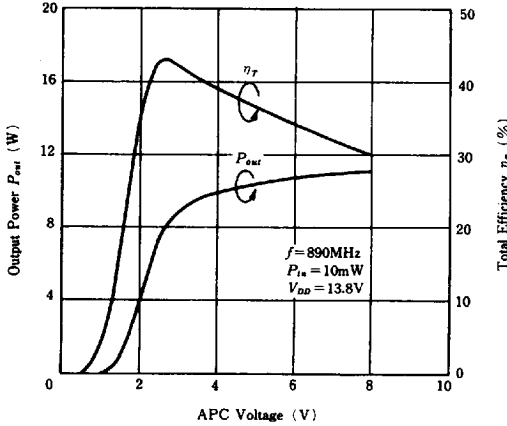
Pout, η_T vs. INPUT POWER



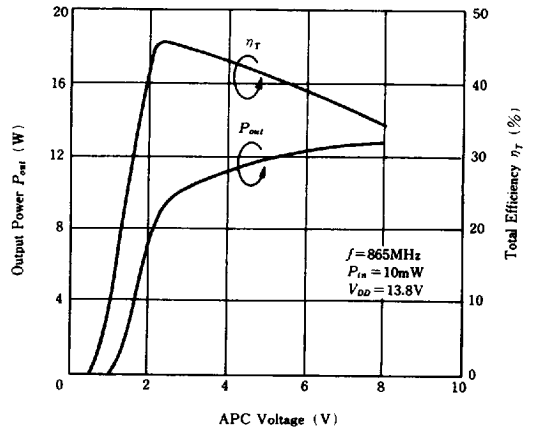
Pout, η_T vs. SUPPLY VOLTAGE



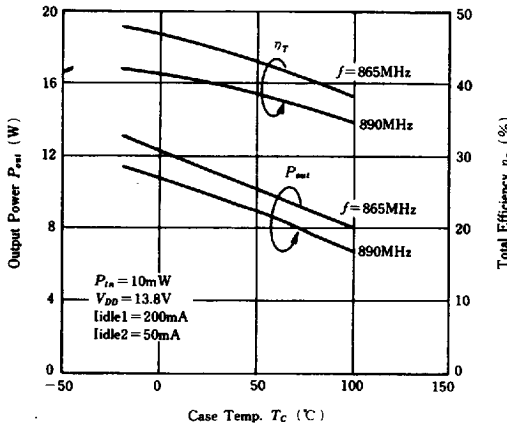
Pout, η_T vs. V_{APC}



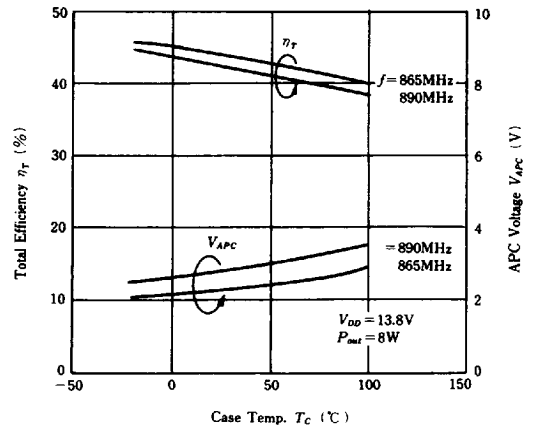
Pout, η_T vs. V_{APC}



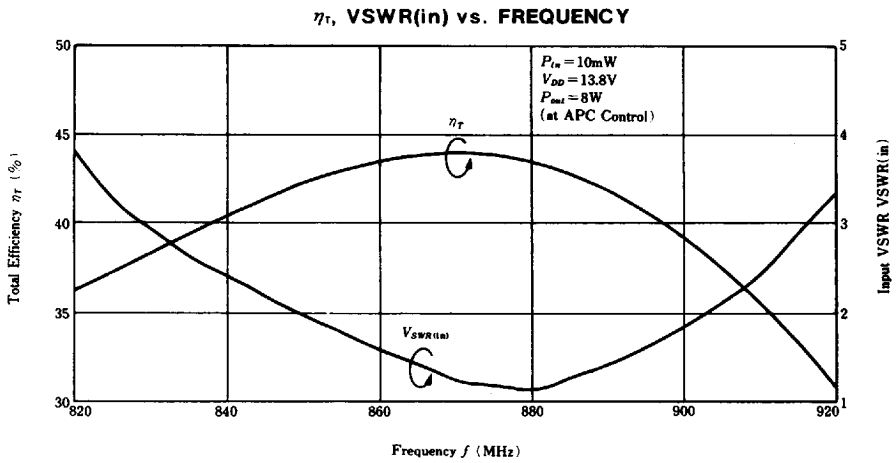
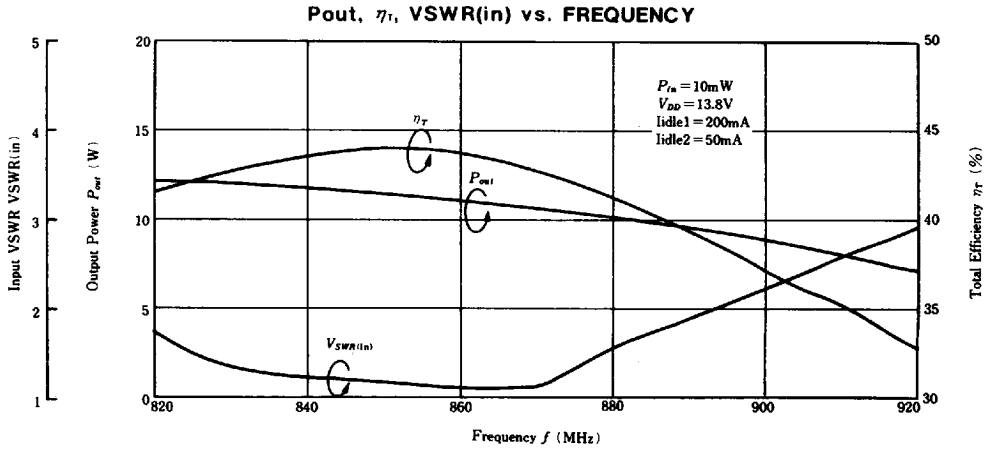
Pout, η_T vs. T_C



η_T, V_{APC} vs. T_C



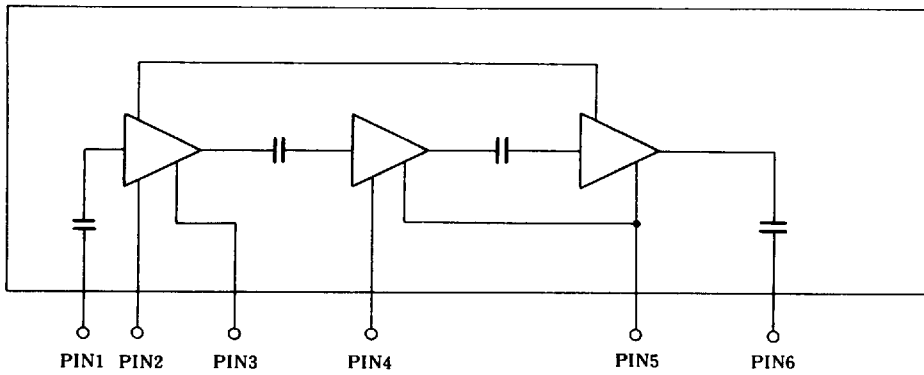
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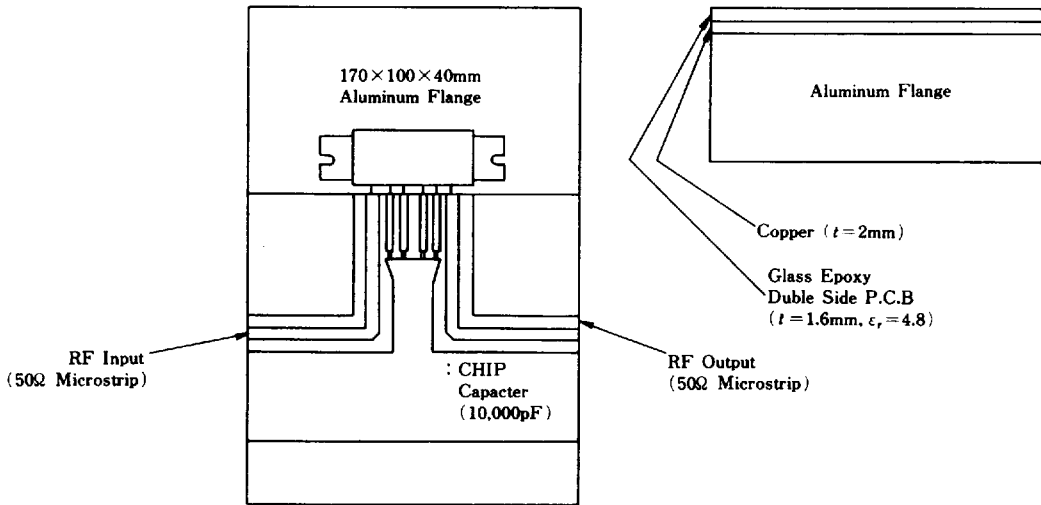
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■ INTERNAL DIAGRAM



■ TEST FIXTURE



■ TEST SYSTEM DIAGRAM

