

MOS FET POWER AMPLIFIER

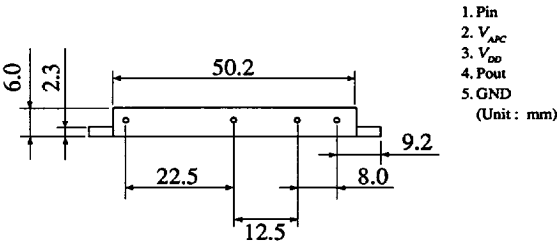
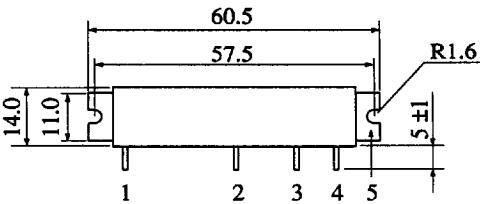
UHF Band 872-905 MHz

■ FEATURES

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

■ABSOLUTE MAXIMUM RATINGS (Ta = 25℃)

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}	20	mW
Operating Maximum Case Temperature	T_{COP}	-40 ~ +100	℃
Storage Temperature	T_{stg}	-45 ~ +125	℃



■ELECTRICAL CHARACTERISTICS (Ta = 25℃)

See characteristic curves of PF0012.

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain Cutoff Current	I_{DS}	$V_{DD} = 17V, V_{APC} = 0$	—	—	500	μA
Total Efficiency	η_T	$f = 872, 905MHz,$ $P_{in} = 2mW,$ $V_{DD} = 12.5V,$ $P_{out} = 6W$ (at APC Control)	35	40	—	%
2nd Harmonic Distortion	2nd H. D.		—	-50	-30	dB
3rd Harmonic Distortion	3rd H. D.		—	-50	-30	dB
Input VSWR	VSWR (in)		—	1.5	3.0	—
Output VSWR	VSWR (out)	$Z_{in} = Z_{out} = 50 \Omega$	—	1.5	—	—
Stability	—	$V_{DD} = 12.5V, P_{in} = 2mW, f = 872MHz$ $P_{out} = 6W$ (at APC Control), $R_s = 50 \Omega,$ Output VSWR $\neq \infty$ All Phase, $t = 20sec$	No Parastic Oscillation			—