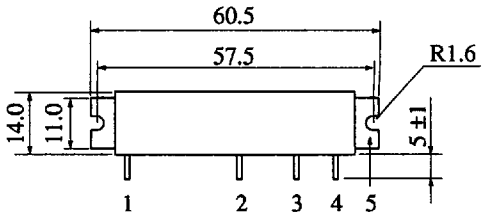
PF0020

MOS FET POWER AMPLIFIER

UHF Band 820-850 MHz

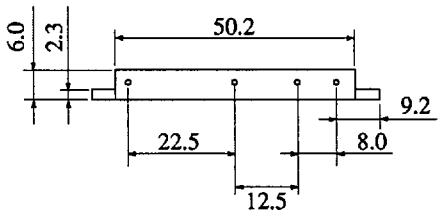
■ FEATURES

- 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	$T_{C(op)}$	−40～+100	℃
Storage Temperature	T_{stg}	−45～+125	℃



1. Pin
2. V_{APC}
3. V_{DD}
4. Pout
5. GND

(Unit: mm)

■ELECTRICAL CHARACTERISTICS (Ta = 25℃)

See characteristic curves of PF0010.

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 = 820, 850MHz,	35	40	−	%
2nd Harmonic Distortion	2nd H. D.	P_{in} = 2mW,	−	−50	−30	dB
3rd Harmonic Distortion	3rd H. D.	V_{DD} = 12.5V,	−	−50	−30	dB
Input VSWR	VSWR (in)	P_{out} = 6W (at APC Control)	−	1.5	3.0	−
Output VSWR	VSWR (out)	Z_{in} = Z_{out} = 50Ω	−	1.5	−	−
Stability	−	V_{DD} = 12.5V, P_{in} = 2mW, f = 820MHz P_{out} = 6W (at APC Control), R_g = 50Ω, Output VSWR ≒ ∞ All Phase, t = 20sec	No Parastic Oscillation			−