



- PIN:
- ① P_{in} : RF INPUT
 - ② V_{GG} : GATE BIAS SUPPLY
 - ③ V_{DD} : DRAIN BIAS SUPPLY
 - ④ P_o : RF OUTPUT
 - ⑤ GND: FIN

ABSOLUTE MAXIMUM RATINGS (T_c=25°C unless otherwise noted)

| Symbol | Parameter | Conditions | Ratings | Unit |
|---------------------|----------------------------|--|-------------|------|
| V _{DD} | Supply voltage | V _{GG} ≤3.5V, Z _G =Z _L =50Ω | 16 | V |
| V _{GG} | Gate bias voltage | | 4 | V |
| P _{in} | Input power | f=490-512MHz, Z _G =Z _L =50Ω | 30 | mW |
| P _o | Output power | f=490-512MHz, Z _G =Z _L =50Ω | 10 | W |
| T _{c (OP)} | Operation case temperature | f=490-512MHz, Z _G =Z _L =50Ω | -30 to +100 | °C |
| T _{stg} | Storage temperature | | -40 to +110 | °C |

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (T_c=25°C, Z_G=Z_L=50Ω unless otherwise noted)

| Symbol | Parameter | Test conditions | Limits | | Unit |
|-----------------|---------------------|---|---------------------------|-----|------|
| | | | Min | Max | |
| f | Frequency range | | 490 | 512 | MHz |
| P _o | Output power | | 7 | | W |
| η _T | Total efficiency | V _{DD} =9.6V, V _{GG} =3.5V, P _{in} =20mW | 40 | | % |
| 2f _o | 2nd. harmonic | | | -25 | dBc |
| ρ _{in} | Input VSWR | | | 4 | - |
| - | Stability | Z _G =50Ω, V _{DD} =4.8-13.2V, Load VSWR<4:1 | No parasitic oscillation | | - |
| - | Load VSWR tolerance | V _{DD} =13.2V, P _{in} =20mW, P _o =7W (V _{GG} adjust), Z _L =20:1 | No degradation or destroy | | - |

Note. Above parameters, ratings, limits and test conditions are subject to change.

SILICON MOS FET POWER AMPLIFIER, 490-512MHz, 7W, FM PORTABLE RADIO

TYPICAL PERFORMANCE DATA

