

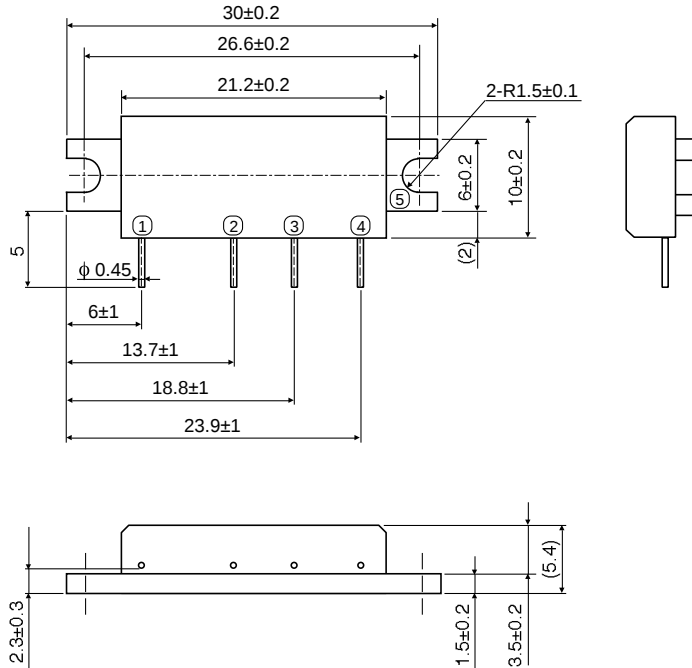
MITSUBISHI RF POWER MODULE

M67799LA

SILICON MOS FET POWER AMPLIFIER, 400-430MHz, 7.5W, FM PORTABLE RADIO

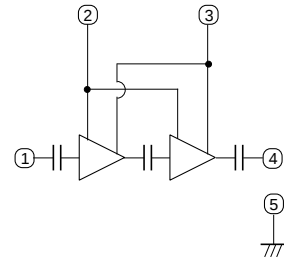
OUTLINE DRAWING

Dimensions in mm



H46

BLOCK DIAGRAM



PIN:

- ①P_{in} : RF INPUT
- ②V_{GG} : GATE BIAS SUPPLY
- ③V_{DD} : DRAIN BIAS SUPPLY
- ④P_O : RF OUTPUT
- ⑤GND: 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=400-430MHz, Z _G =Z _L =50Ω	30	mW
P _O	Output power	f=400-430MHz, Z _G =Z _L =50Ω	10	W
T _{C (OP)}	Operation case temperature	f=400-430MHz, 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		400	430	MHz
P _O	Output power	V _{DD} =9.6V, V _{GG} =3.5V, P _{in} =20mW	7.5		W
η _T	Total efficiency		43		%
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 =7.5W (V _{GG} adjust), Z _L =20:1	No degradation or destroy		-

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