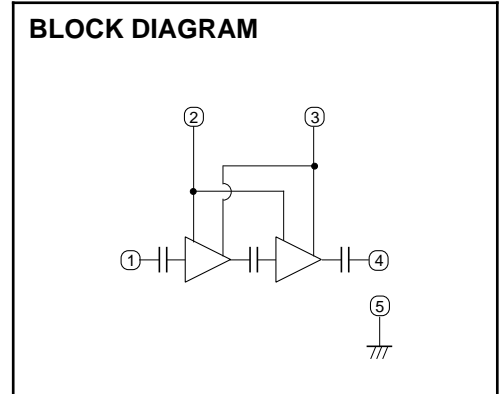
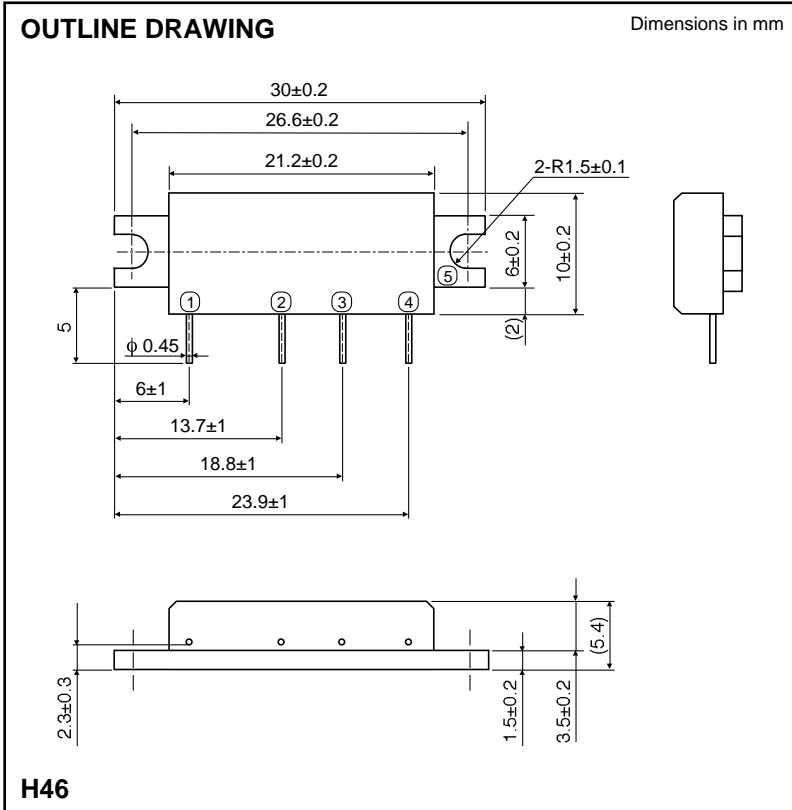


MITSUBISHI RF POWER MODULE  
**M68710EL**

SILICON MOS FET POWER AMPLIFIER, 290-330MHz, 2W, FM PORTABLE RADIO



- PIN:  
 ① Pin : RF INPUT  
 ② V<sub>GG</sub> : GATE BIAS SUPPLY  
 ③ V<sub>DD</sub> : DRAIN BIAS SUPPLY  
 ④ P<sub>O</sub> : RF OUTPUT  
 ⑤ GND: FIN

**ABSOLUTE MAXIMUM RATINGS** (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>DD</sub>	Supply voltage	V <sub>GG</sub> 3.5V, Z <sub>G</sub> =Z <sub>L</sub> =50	9	V
V <sub>GG</sub>	Gate bias voltage		4	V
P <sub>in</sub>	Input power	f=290-330MHz, Z <sub>G</sub> =Z <sub>L</sub> =50	30	mW
P <sub>o</sub>	Output power	f=290-330MHz, V <sub>DD</sub> 9V, Z <sub>G</sub> =Z <sub>L</sub> =50	3	W
T <sub>C (OP)</sub>	Operation case temperature	f=290-330MHz, V <sub>DD</sub> 9V, Z <sub>G</sub> =Z <sub>L</sub> =50	-30 to +110	°C
T <sub>stg</sub>	Storage temperature		-40 to +110	°C

Note. Above parameters are guaranteed independently.

**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub>=25°C, Z<sub>G</sub>=Z<sub>L</sub>=50 unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit	
			Min	Max		
f	Frequency range		290	330	MHz	
P <sub>o</sub>	Output power	V <sub>DD</sub> =6V, V <sub>GG</sub> =3.5V, P <sub>in</sub> =20mW	2		W	
η	Total efficiency		40		%	
2f <sub>o</sub>	2nd. harmonic			-20		dBc
in	Input VSWR			4		-
-	Stability	Z <sub>G</sub> =50, V <sub>DD</sub> =4-9V, Load VSWR<4:1	No parasitic oscillation		-	
-	Load VSWR tolerance	V <sub>DD</sub> =9V, P <sub>in</sub> =20mW, P <sub>o</sub> =3W (V <sub>GG</sub> adjust), Z <sub>L</sub> =20:1	No degradation or destroy		-	

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