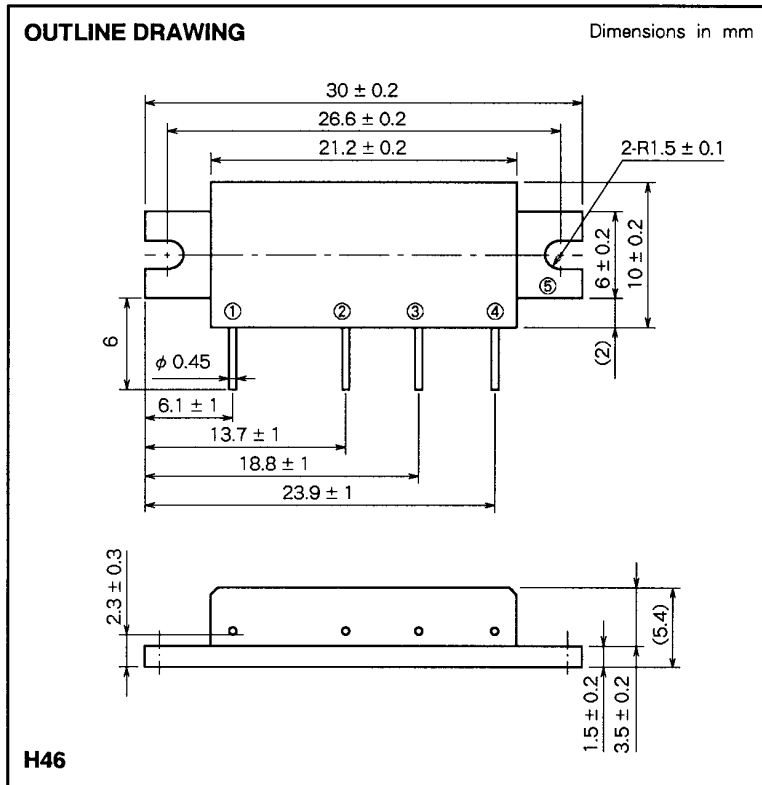
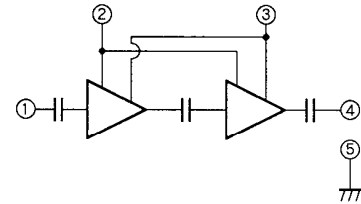


# M68710UH

470-520MHz, 6V, 2W FM PORTABLE RADIO



**BLOCK DIAGRAM**



PIN :

- ① Pin : RF INPUT
- ② VGG : GATE BIAS SUPPLY
- ③ VDD : DRAIN BIAS SUPPLY
- ④ Po : RF OUTPUT
- ⑤ GND : FIN

**ABSOLUTE MAXIMUM RATINGS** (Tc = 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> = 50Ω	9	V
V <sub>GG</sub>	Gate bias voltage		4	V
P <sub>in</sub>	Input power	f=470 to 520MHz, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	30	mW
P <sub>o</sub>	Output power	f=470 to 520MHz, V <sub>DD</sub> ≤ 9V, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	3	W
T <sub>C(OP)</sub>	Operation case temperature	f=470 to 520MHz, V <sub>DD</sub> ≤ 9V, Z <sub>G</sub> =Z <sub>L</sub> =50Ω	- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

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

Symbol	Parameter	Test conditions	Limits		Unit	
			Min	Max		
f	Frequency range		470	520	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 <sub>T</sub>	Total efficiency		40		%	
2f <sub>o</sub>	2nd. harmonic			- 25		dBc
ρ <sub>in</sub>	Input VSWR			4		-
-	Stability	Z <sub>G</sub> = 50Ω, V <sub>DD</sub> = 4 to 8V, Load VSWR < 4 : 1	No parasitic oscillation		-	
-	Load VSWR tolerance	V <sub>DD</sub> = 9V, P <sub>in</sub> = 20mW, P <sub>o</sub> = 2W(V <sub>GG</sub> Adjust), Z <sub>L</sub> = 20 : 1	No degradation or destroy		-	

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