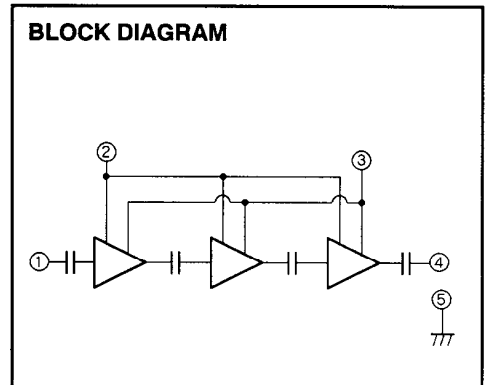
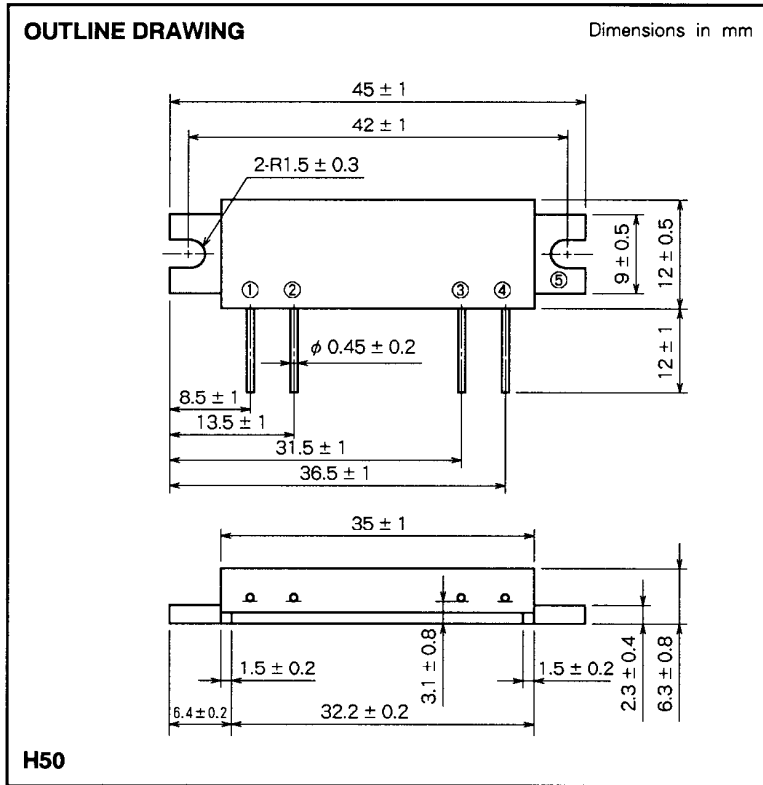


# M68711

889-915MHz, 9.3V, 3.8W, 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> ≤ 5V, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	12	V
V <sub>GG</sub>	Gate bias voltage		5.5	V
P <sub>in</sub>	Input power	f = 889 to 915MHz, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	6	mW
P <sub>o</sub>	Output power	f = 889 to 915MHz, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	6	W
T <sub>C(OP)</sub>	Operation case temperature	f = 889 to 915MHz, Z <sub>G</sub> = Z <sub>L</sub> = 50Ω	- 30 to 100	°C
T <sub>stg</sub>	Storage temperature		- 40 to 100	°C

Note. Above parameters are guaranteed independently.

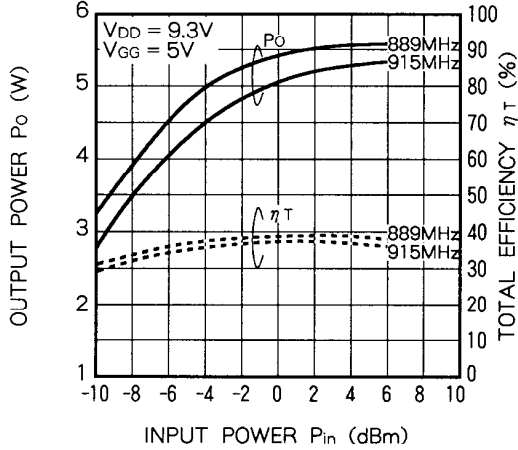
**ELECTRICAL CHARACTERISTICS** (T<sub>c</sub> = 25 °C, Z<sub>G</sub> = Z<sub>L</sub> = 50Ω, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		889	915	MHz
P <sub>o</sub>	Output power	V <sub>DD</sub> = 9.3V	3.8		W
2f <sub>o</sub>	2nd. harmonic	V <sub>GG</sub> = 5V		- 30	dBc
ρ <sub>in</sub>	Input VSWR	P <sub>in</sub> = 1mW		3	-
η <sub>T</sub>	Total efficiency	P <sub>o</sub> = 3.8W(V <sub>GG</sub> Adjust), V <sub>DD</sub> = 9.3V, P <sub>in</sub> = 1mW	30		%
-	Stability	Z <sub>G</sub> = 50Ω, V <sub>DD</sub> = 5 to 9.3V, Load VSWR < 3 : 1	No parasitic oscillation		-
-	Load VSWR tolerance	V <sub>DD</sub> = 12V, P <sub>in</sub> = 1mW, P <sub>o</sub> = 3.8W(V <sub>GG</sub> Adjust), Z <sub>L</sub> = 20 : 1	No degradation or destroy		-

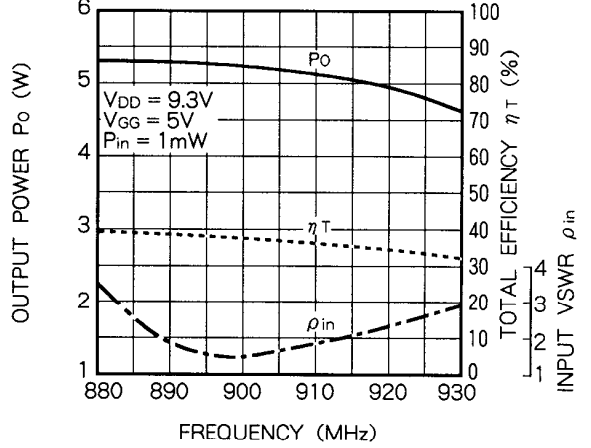
Note : Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

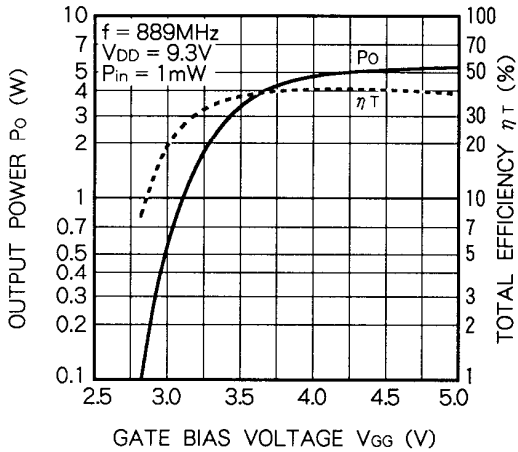
OUTPUT POWER, TOTAL EFFICIENCY VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY



OUTPUT POWER, TOTAL EFFICIENCY VS. GATE BIAS VOLTAGE CHARACTERISTICS (f = 889MHz)



OUTPUT POWER, TOTAL EFFICIENCY VS. GATE BIAS VOLTAGE CHARACTERISTICS (f = 915MHz)

