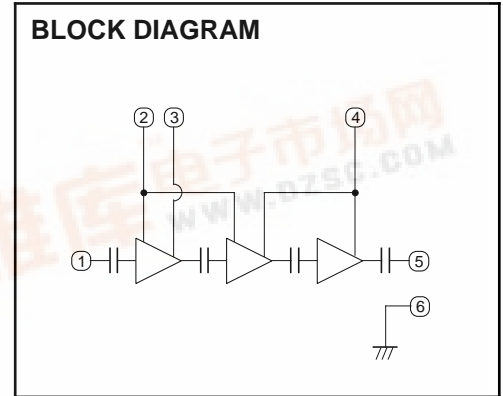
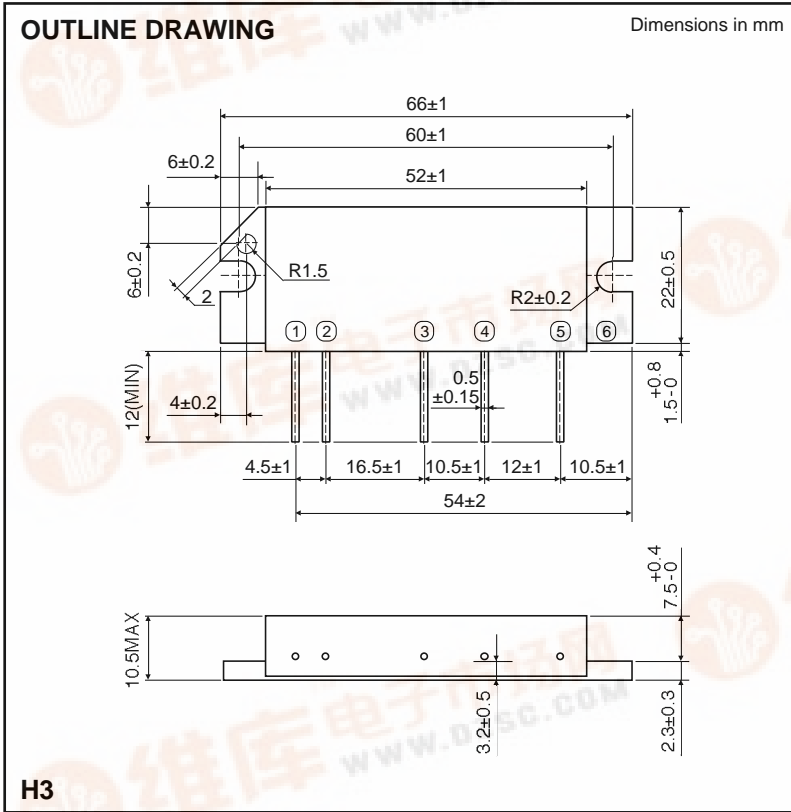


MITSUBISHI RF POWER MODULE

M67760HC

896-941MHz, 12.5V, 20W, FM MOBILE RADIO



PIN:

- ①Pin : RF INPUT
- ②V<sub>BB</sub> : BASE BIAS SUPPLY
- ③V<sub>CC1</sub>: 1st. DC SUPPLY
- ④V<sub>CC2</sub>: 2nd. DC SUPPLY
- ⑤P<sub>O</sub> : RF OUTPUT
- ⑥GND: FIN

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

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>BB</sub>	Base bias		9.5	V
V <sub>CC1</sub>	Supply voltage	V <sub>BB</sub> =9V	14	V
V <sub>CC2</sub>	Supply voltage	Z <sub>G</sub> =Z <sub>L</sub> =50, V <sub>BB</sub> =9V	16.5	V
I <sub>CC</sub>	Total current	Z <sub>G</sub> =Z <sub>L</sub> =50, V <sub>CC1</sub> 12.5V	8.5	A
P <sub>in</sub> (max)	Input power	f=896-941MHz, Z <sub>G</sub> =Z <sub>L</sub> =50	0.8	W
P <sub>O</sub> (max)	Output power	Z <sub>G</sub> =Z <sub>L</sub> =50	25	W
T <sub>C</sub> (OP)	Operation case temperature	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 unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		896	941	MHz
P <sub>O</sub>	Output power	V <sub>BB</sub> =9V, V <sub>CC1</sub> =V <sub>CC2</sub> =12.5V, P <sub>in</sub> =0.4W, Z <sub>G</sub> =Z <sub>L</sub> =50	20		W
η	Total efficiency	V <sub>BB</sub> =9V, V <sub>CC1</sub> =V <sub>CC2</sub> =12.5V, Z <sub>G</sub> =Z <sub>L</sub> =50	25		%
2f <sub>o</sub>	2nd. harmonic	P <sub>O</sub> =20W (P <sub>in</sub> :controlled)		-30	dBc
in	Input VSWR	V <sub>BB</sub> =9V, V <sub>CC1</sub> =12.5V, V <sub>CC2</sub> =15.5V, P <sub>O</sub> =20W (P <sub>in</sub> :controlled), Z <sub>G</sub> =50, Load VSWR=20:1		3	-
-	Load VSWR tolerance	V <sub>BB</sub> =9V, f=896-902, 935-941MHz, V <sub>CC1</sub> =10 to 12.5V, V <sub>CC2</sub> =10 to 15.5V (V <sub>CC1</sub> V <sub>CC2</sub> ), P <sub>O</sub> =0 to 20W (P <sub>in</sub> :controlled less than 0.4W), Z <sub>G</sub> =50, Load VSWR 3:1 (All phase)	No degradation or destroy		-
-	Stability	V <sub>BB</sub> =9V, f=896-902, 935-941MHz, V <sub>CC1</sub> =10 to 12.5V, V <sub>CC2</sub> =10 to 15.5V (V <sub>CC1</sub> V <sub>CC2</sub> ), P <sub>O</sub> =0 to 20W (P <sub>in</sub> :controlled less than 0.4W), Z <sub>G</sub> =50, Load VSWR 3:1 (All phase)	No oscillation more than -60dBc		-

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

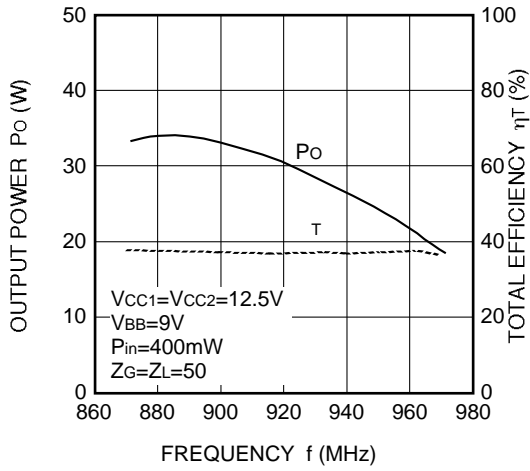


MITSUBISHI RF POWER MODULE  
**M67760HC**

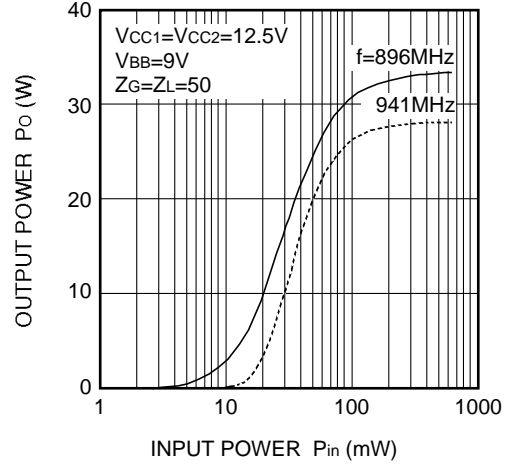
896-941MHz, 12.5V, 20W, FM MOBILE RADIO

**TYPICAL PERFORMANCE DATA**

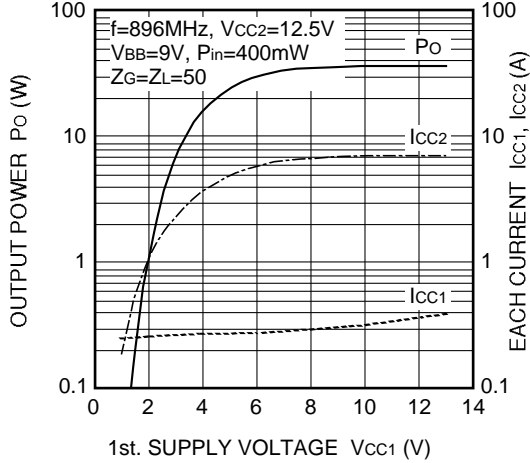
**OUTPUT POWER, TOTAL EFFICIENCY VS. FREQUENCY**



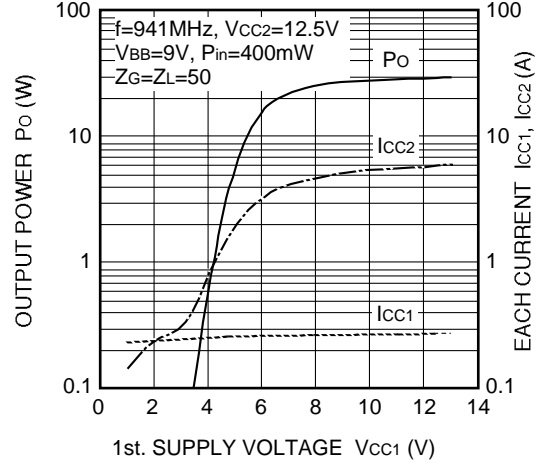
**OUTPUT POWER, VS. INPUT POWER**



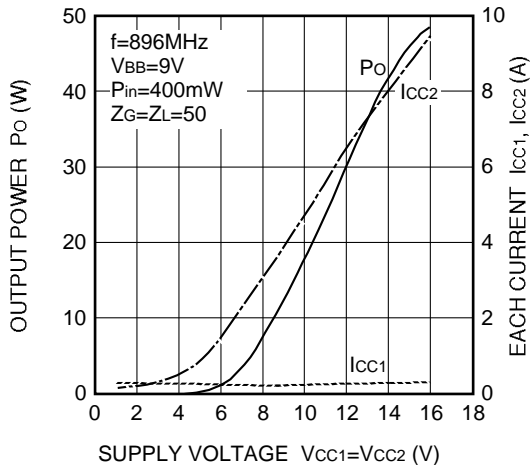
**OUTPUT POWER, EACH CURRENT VS. 1st. SUPPLY VOLTAGE**



**OUTPUT POWER, EACH CURRENT VS. 1st. SUPPLY VOLTAGE**



**OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE**



**OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE**

