

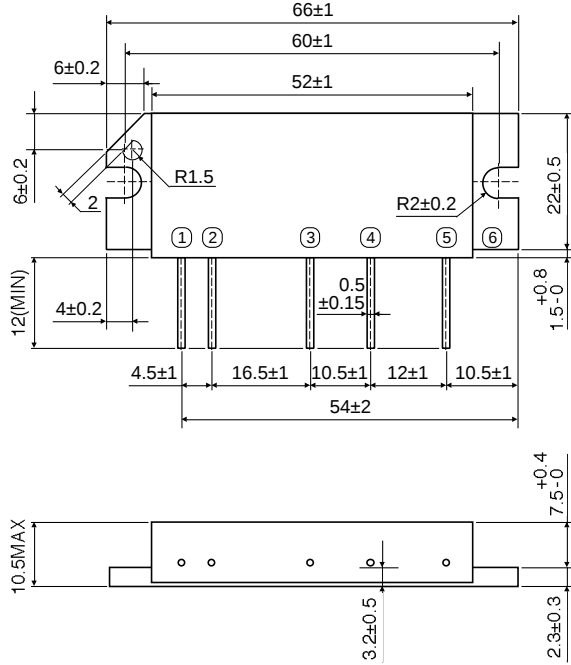
MITSUBISHI RF POWER MODULE

M67760HC

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

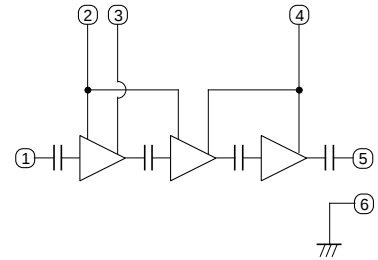
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



PIN:

- ① Pin : RF INPUT
- ② VBB : BASE BIAS SUPPLY
- ③ Vcc1: 1st. DC SUPPLY
- ④ Vcc2: 2nd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND: FIN

ABSOLUTE MAXIMUM RATINGS (Tc=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
VBB	Base bias		9.5	V
VCC1	Supply voltage	VBB=9V	14	V
VCC2	Supply voltage	ZG=ZL=50W, VBB=9V	16.5	V
ICC	Total current	ZG=ZL=50W, VCC1≤12.5V	8.5	A
P _{in} (max)	Input power	f=896-941MHz, ZG=ZL=50W	0.8	W
P _O (max)	Output power	ZG=ZL=50W	25	W
T _C (OP)	Operation case temperature	ZG=ZL=50W	-30 to +110	°C
T _{stg}	Storage temperature		-40 to +110	°C

Note. Above parameters are guaranteed independently.

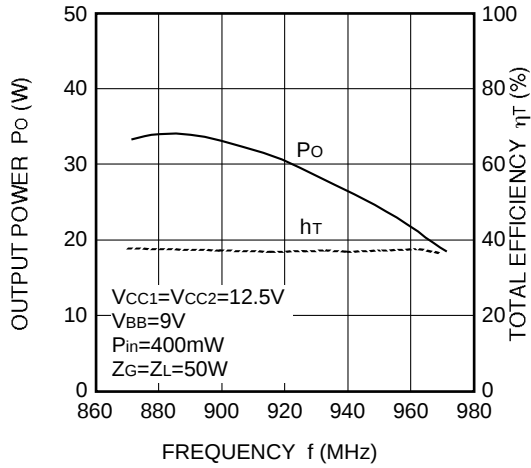
ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		896	941	MHz
P _O	Output power	VBB=9V, VCC1=VCC2=12.5V, P _{in} =0.4W, ZG=ZL=50W	20		W
h _T	Total efficiency	VBB=9V, VCC1=VCC2=12.5V, ZG=ZL=50W	25		%
2f _o	2nd. harmonic	P _O =20W (P _{in} :controlled)		-30	dBc
r _{in}	Input VSWR			3	-
-	Load VSWR tolerance	VBB=9V, VCC1=12.5V, VCC2=15.5V, P _O =20W (P _{in} :controlled), ZG=50W, Load VSWR=20:1	No degradation or destroy		-
-	Stability	VBB=9V, f=896-902, 935-941MHz, VCC1=10 to 12.5V, VCC2=10 to 15.5V (VCC1≤VCC2), P _O =0 to 20W (P _{in} :controlled less than 0.4W), ZG=50W, Load VSWR≤3:1 (All phase)	No oscillation more than -60dBc		-

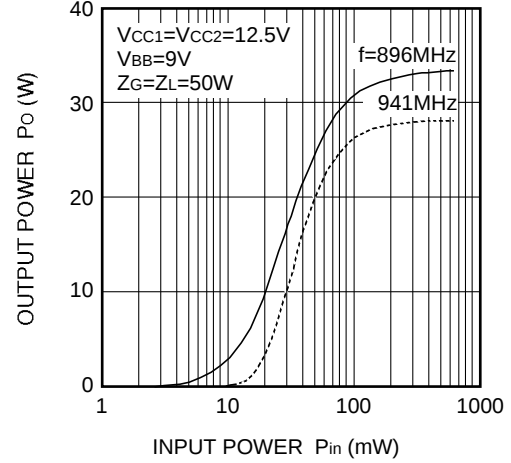
Note. Above parameters, ratings, limits and test conditions are subject to change.

TYPICAL PERFORMANCE DATA

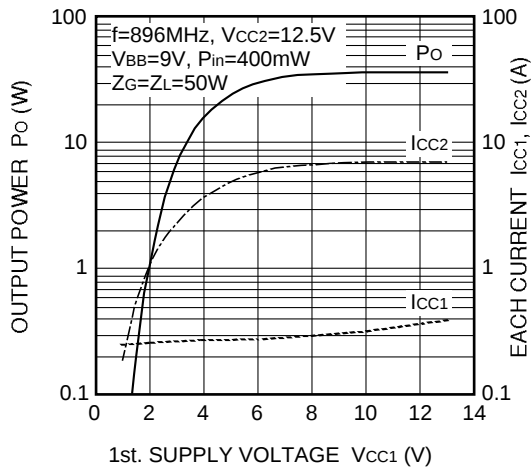
**OUTPUT POWER, TOTAL EFFICIENCY
VS. FREQUENCY**



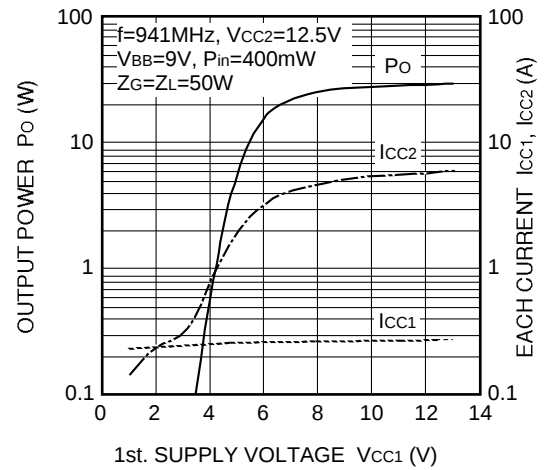
OUTPUT POWER, VS. INPUT POWER



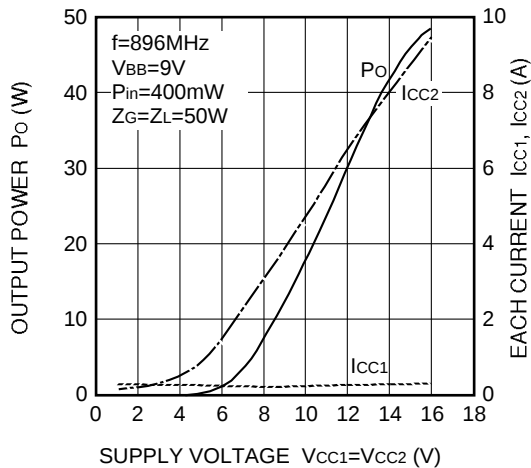
**OUTPUT POWER, EACH CURRENT
VS. 1st. SUPPLY VOLTAGE**



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



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



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

