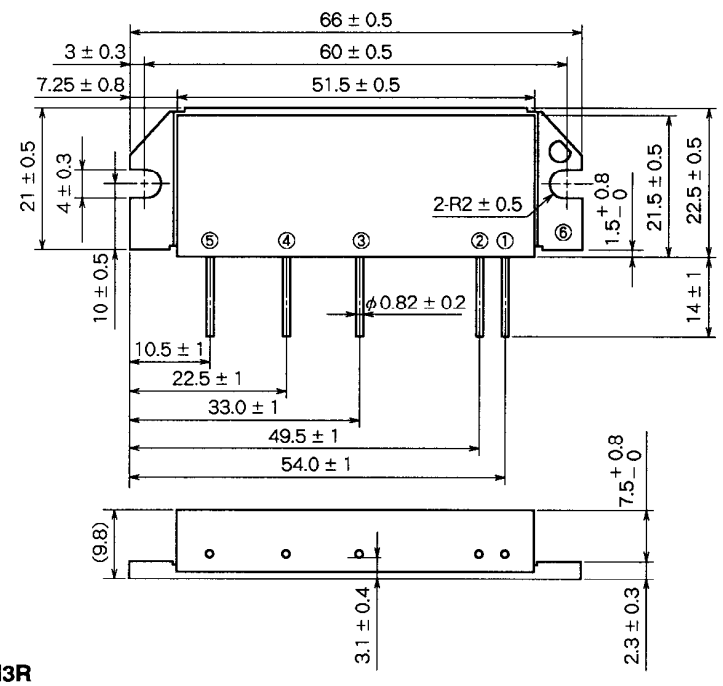
MITSUBISHI RF POWER MODULE

M57788MR

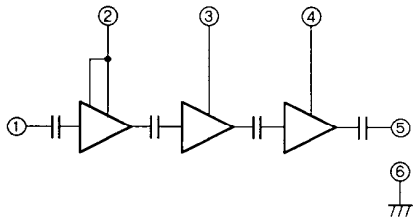
430-450MHz, 12.5V, 45W, FM MOBILE RADIO

OUTLINE DRAWING Dimensions in mm



H3R

BLOCK DIAGRAM



PIN :
①Pin : RF INPUT
②Vcc1 : 1st. DC SUPPLY
③Vcc2 : 2nd. DC SUPPLY
④Vcc3 : 3rd. DC SUPPLY
⑤Po : RF OUTPUT
⑥GND : FIN

ABSOLUTE MAXIMUM RATINGS (T_C = 25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		17	V
I_{CC}	Total current		12	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\ \Omega$	0.8	W
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\ \Omega$	50	W
$T_{C(OP)}$	Operation case temperature		− 30 to 110	℃
T_{stg}	Storage temperature		− 40 to 110	℃

Note. Above parameters are guaranteed independently.

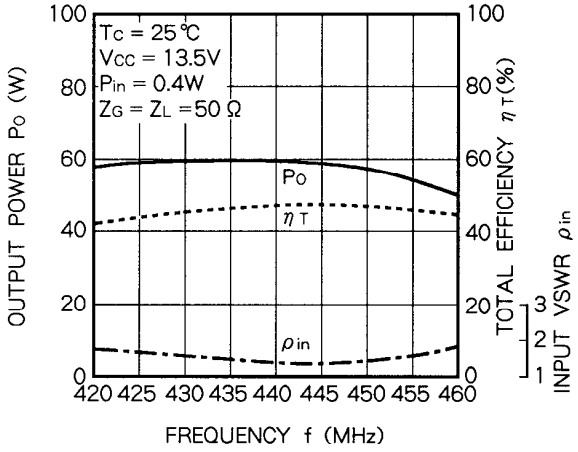
ELECTRICAL CHARACTERISTICS (T_C = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 0.4W V_{CC} = 13.5V $Z_G = Z_L = 50\ \Omega$	430	450	MHz
P_O	Output power		45		W
η_T	Total efficiency		40		%
2fo	2nd. harmonic			− 30	dBc
3fo	3rd. harmonic			− 30	dBc
ρ_{in}	Input VSWR			2.8	−
−	Load VSWR tolerance	V_{CC} = 15.2V, P_O = 45W (P_{in} : controlled) Load VSWR=8.8:1(All phase), $Z_G = 50\ \Omega$	No degradation or destroy		−

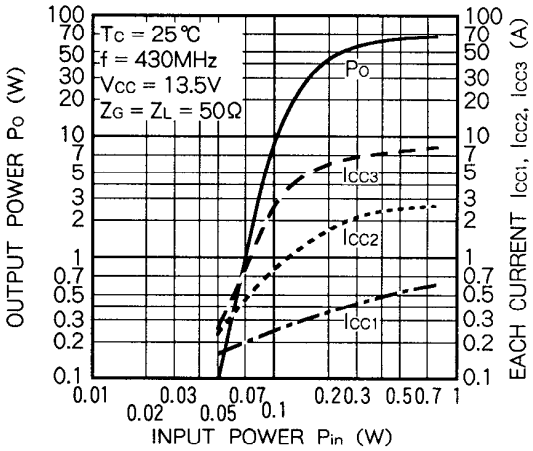
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

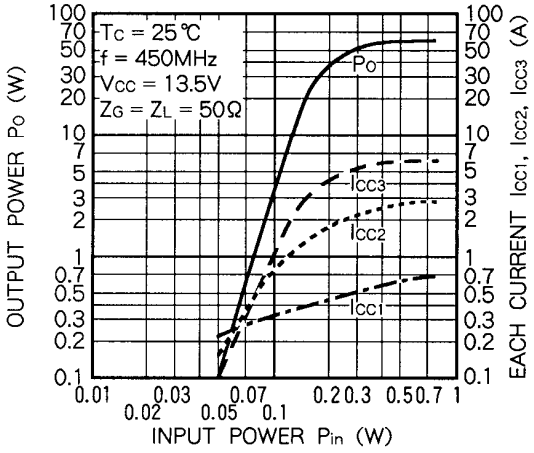
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



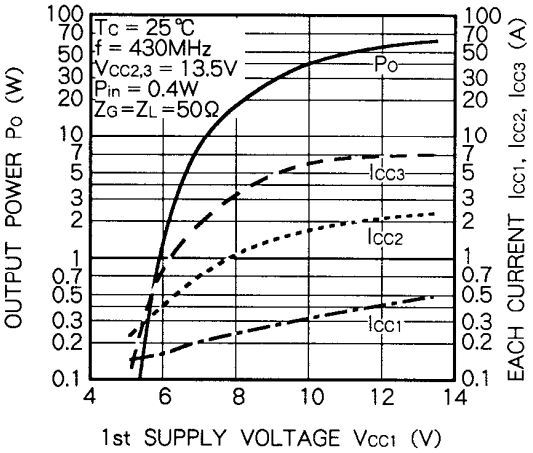
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



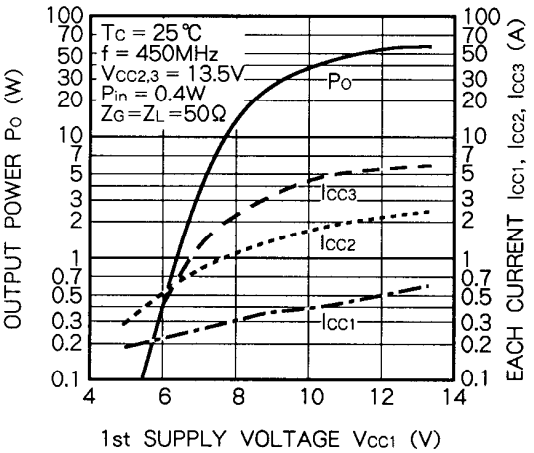
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



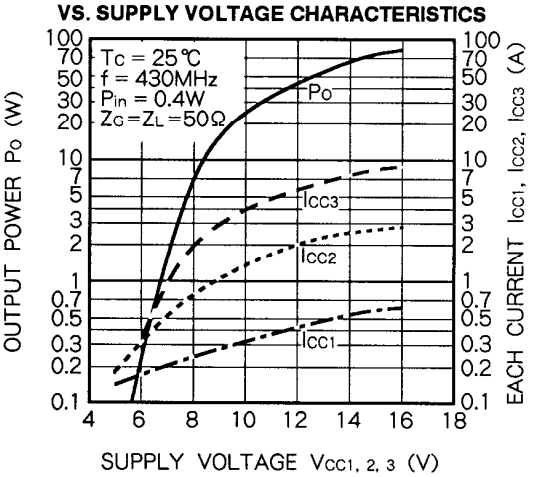
OUTPUT POWER, EACH CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



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



OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS

