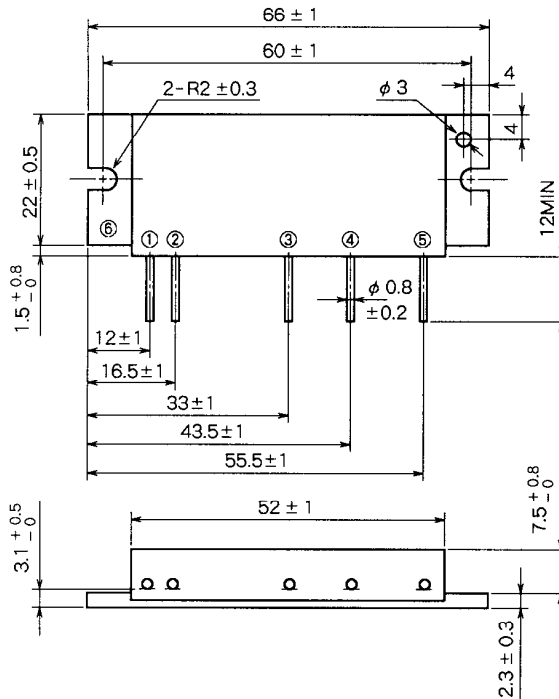


M57788H

450-470MHz, 12.5V, 40W, FM MOBILE RADIO

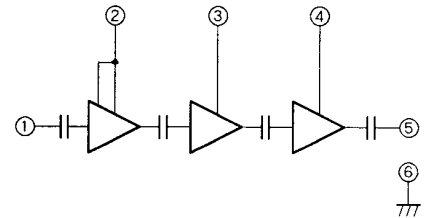
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



PIN :

- ① P_{in} : RF INPUT
- ② V_{CC1} : 1st. DC SUPPLY
- ③ V_{CC2} : 2nd. DC SUPPLY
- ④ V_{CC3} : 3rd. DC SUPPLY
- ⑤ P_o : RF OUTPUT
- ⑥ GND : FIN

ABSOLUTE MAXIMUM RATINGS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC1}	Supply voltage		16	V
$V_{CC2,3}$			17	V
I_{CC}	Total current		12	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50 \Omega$	0.5	W
$P_{o(max)}$	Output power	$Z_G = Z_L = 50 \Omega$	50	W
$T_{C(OP)}$	Operation case temperature		- 30 to 110	$^\circ\text{C}$
T_{stg}	Storage temperature		- 40 to 110	$^\circ\text{C}$

Note. Above parameters are guaranteed independently.

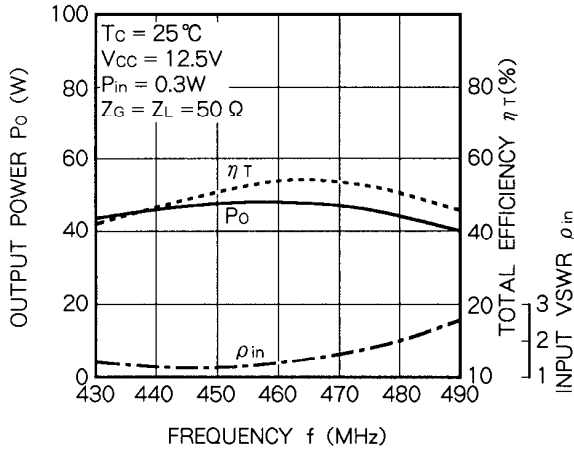
ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	$P_{in} = 0.3\text{W}$ $V_{CC} = 12.5\text{V}$ $Z_G = Z_L = 50 \Omega$	450	470	MHz
P_o	Output power		40		W
η_T	Total efficiency		40		%
$2f_o$	2nd. harmonic			- 30	dBc
$3f_o$	3rd. harmonic			- 30	dBc
ρ_{in}	Input VSWR			3.5	--
-	Load VSWR tolerance	$V_{CC} = 15.2\text{V}$, $P_o = 40\text{W}$ (P_{in} : controlled) Load VSWR = 8.8 : 1 (All phase), $Z_G = 50 \Omega$	No degradation or destroy		-

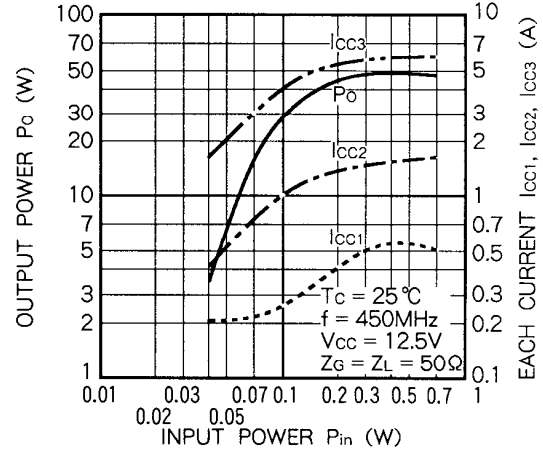
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

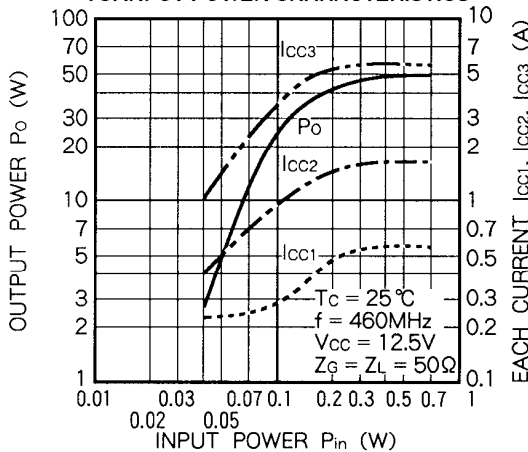
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



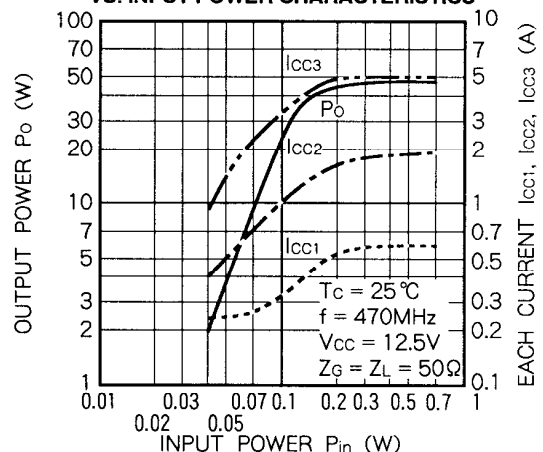
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



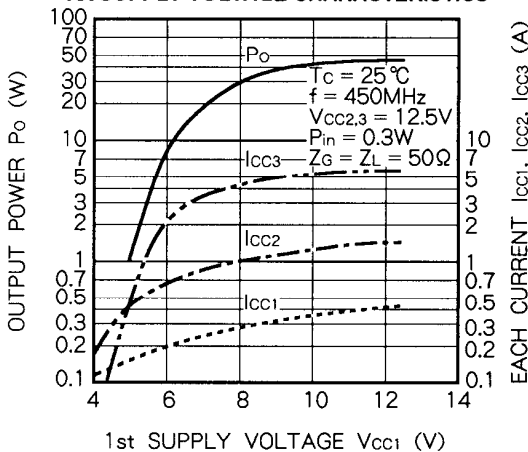
OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER, EACH CURRENT VS. INPUT POWER CHARACTERISTICS



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



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

