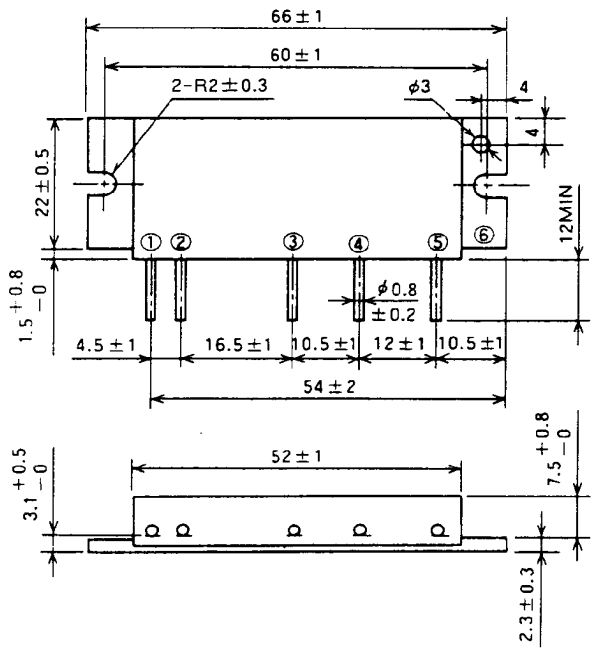
M68706

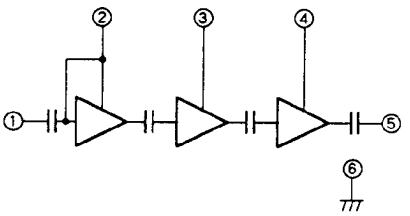
250-270MHz, 12.5V, 30W, FM MOBILE RADIO

OUTLINE DRAWING Dimensions in mm



H3

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		10	A
$P_{in(max)}$	Input power	$V_{CC1} \leq 12.5V$, $Z_G = Z_L = 50\,\Omega$	600	mW
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\,\Omega$	40	W
$T_{C(OP)}$	Operation case temperature	$Z_G = Z_L = 50\,\Omega$	− 30 to 110	℃
T_{stg}	Storage temperature		− 40 to 110	℃

Note. Above parameters are guaranteed independently.

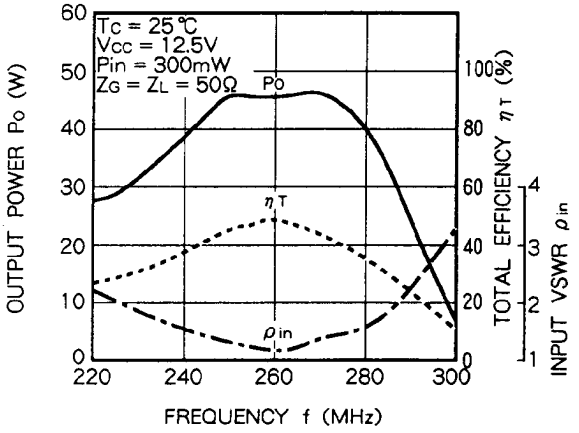
ELECTRICAL CHARACTERISTICS (T_C = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	V_{CC} = 12.5V P_{in} = 300mW $Z_G = Z_L = 50\Omega$	250	270	MHz
P_O	Output power		30		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 = 30W(P_{in} : controlled) Load VSWR = 20 : 1(All phase), $Z_G = 50\Omega$	No degradation or destroy		−

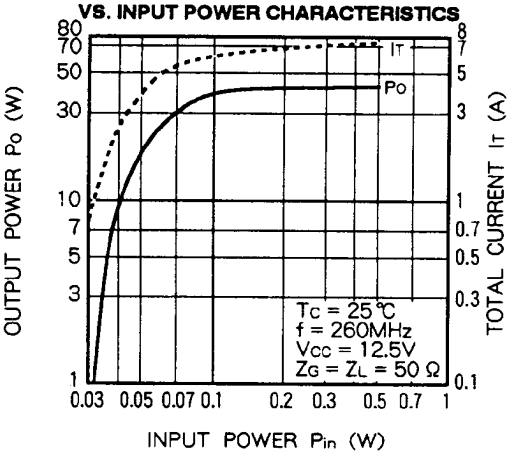
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

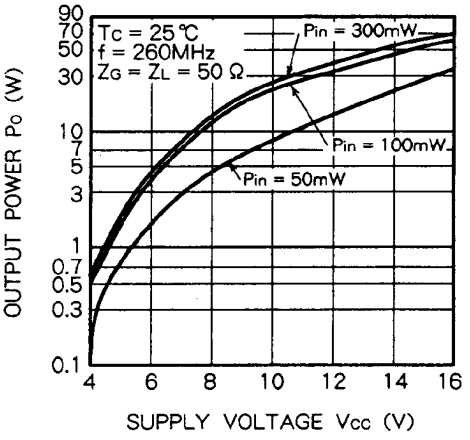
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT VS. INPUT POWER CHARACTERISTICS



OUTPUT POWER VS. SUPPLY VOLTAGE CHARACTERISTICS



OUTPUT POWER VS. 1st SUPPLY VOLTAG CHARACTERISTICS