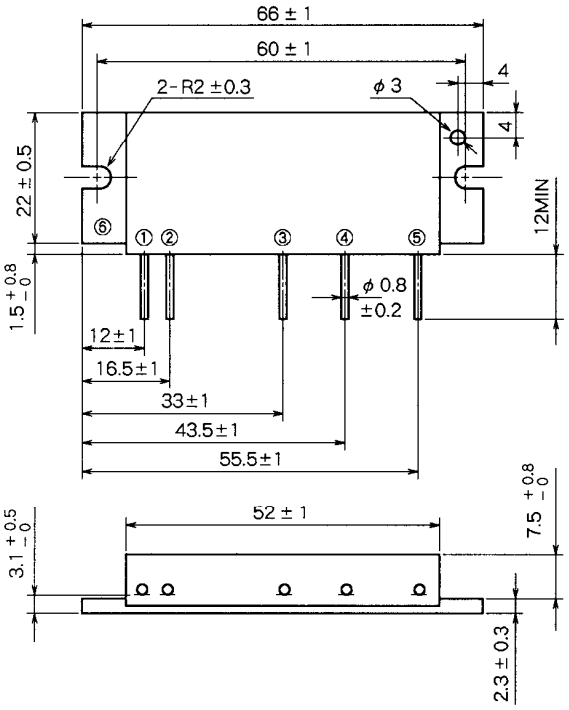
MITSUBISHI RF POWER MODULE

M57788SH

490-512MHz, 12.5V, 40W, FM MOBILE RADIO

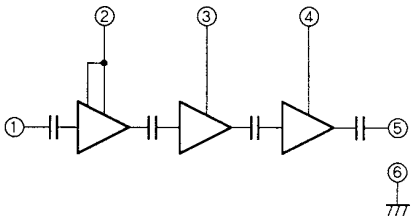
OUTLINE DRAWING

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 (Tc = 25℃ 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	℃
T_{stg}	Storage temperature		− 40 to 110	℃

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 0.3W V_{CC} = 12.5V $Z_G = Z_L = 50\ \Omega$	490	512	MHz
P_O	Output power		40		W
η_T	Total efficiency		40		%
2fo	2nd. harmonic			− 30	dBc
3fo	3rd. harmonic			− 30	dBc
ρ_{in}	Input VSWR			3.5	−
−	Load VSWR tolerance	V_{CC} = 15.2V, P_O = 40W (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.