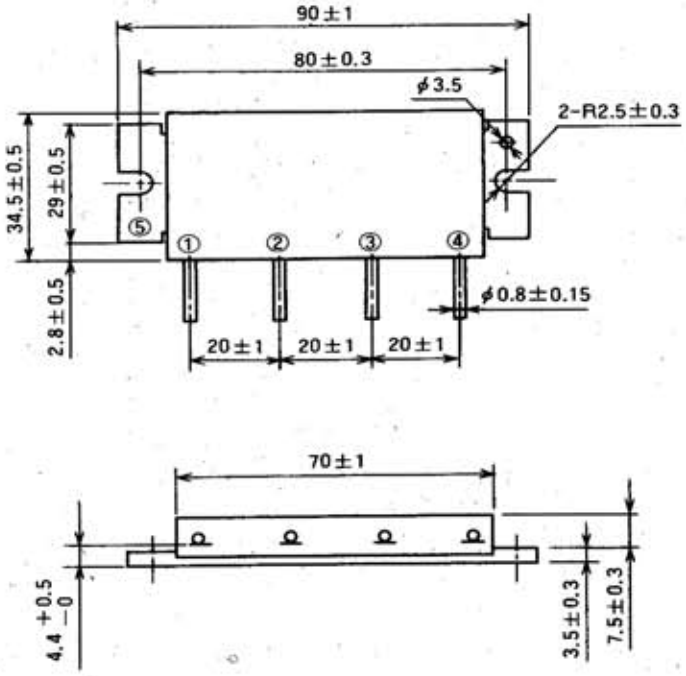
MITSUBISHI RF POWER MODULE

M67703SH

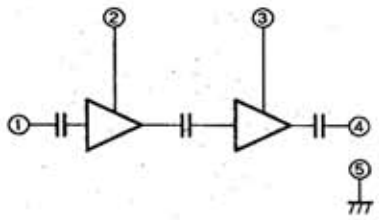
490-512MHz, 12.5V, 50W, FM MOBILE RADIO

OUTLINE DRAWING

Dimensions in mm



BLOCK DIAGRAM



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

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

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		17	V
I_{CC}	Total current		25	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\,\Omega$	18	W
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\,\Omega$	80	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} = 10W V_{CC} = 12.5V $Z_G = Z_L = 50\,\Omega$	490	512	MHz
Po	Output power		50		W
η_T	Total efficiency		40		%
2fo	2nd. harmonic			−30	dBc
3fo	3rd. harmonic			−35	dBc
ρ_{in}	Input VSWR			2.8	−
−	Load VSWR tolerance	V_{CC} = 15.2V Po = 50W (P_{in} : controlled) Load VSWR=8.8:1(All phase), 2sec. $Z_G = 50\,\Omega$	No degradation or destroy		−

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

MITSUBISHI ELECTRIC