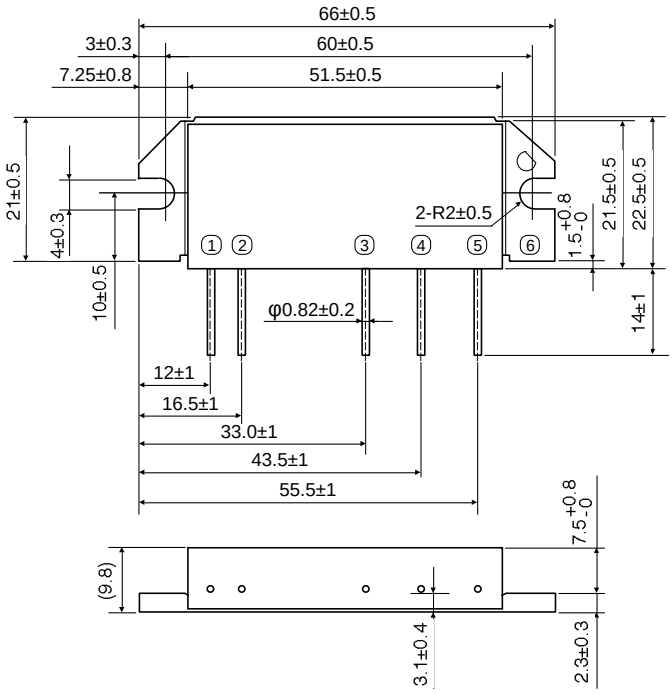
M68703MA

430-450MHz, 12.5V, 50W, FM MOBILE RADIO

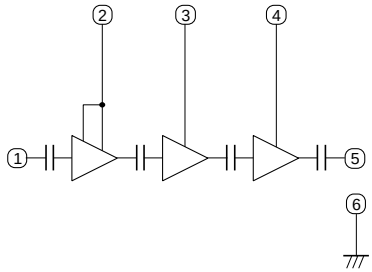
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



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

ABSOLUTE MAXIMUM RATINGS (Tc=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage	Z_G=Z_L=50Ω	17	V
I_{CC}	Total current	Z_G=Z_L=50Ω	20	A
$P_{in\ (max)}$	Input power	Z_G=Z_L=50Ω, V_{CC1}≤12.5V	600	mW
$P_{O\ (max)}$	Output power	Z_G=Z_L=50Ω, V_{CC1}≤12.5V	70	W
$T_{C\ (OP)}$	Operation case temperature	Z_G=Z_L=50Ω, V_{CC1}≤12.5V	-30 to +110	°C
T_{stg}	Storage temperature		-40 to +110	°C

Note. Above parameters are guaranteed independently.

ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		430	450	MHz
P_O	Output power	V_{CC}=12.5V, P_{in}=400mW, Z_G=Z_L=50Ω	50		W
η_T	Total efficiency		35		%
2f_O	2nd. harmonic			-30	dBc
3f_O	3rd. harmonic			-30	dBc
ρ_{in}	Input VSWR			3	-
-	Load VSWR tolerance	V_{CC}=15.2V, P_O=50W (P_{in}:controlled) Z_G=50Ω, Load VSWR=8:1 (All phase)	No degradation or destroy		-

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