The HITACHI 2M252 is fixed frequency continuous wave magnetron intended for use in microwave ovens and industrial microwave heating applications.

The useful RF power output at 2450 MHz band is approx. 3000 watts into a matched load.

FEATURES

- 1. Stable performance with water cooling jackets
- 2. Suitable performance and excellent reliability for use in microwave ovens and industrial microwave heating applications
- 3. Sufficient noise suppression with the improvement of integrated filter circuit

GENERAL DATA

ELECTRICAL

Filament Voltage (Stand-by)	 4.0 V	
Filament Voltage (Operation)	 (Fig. 1)	
Filament Current (Stand-by)	 23 A	
Filament Surge Current (peak)	 100 A	
Filament Pre-heating Time	 12 sec	
Frequency (with matched load)	 2455 MHz	
Recommending Operation	 Continuous	
Anode Potential	 Grounded	
Filament Potential	 Negative High Voltage	
	- 5.2 kV	
Magnet	 Permanent Magnet	

Temperature Coefficient MECHANICAL		-0.2	%/K			
Dimensions : See dimensional outline (Fig. 5).						
Width		120	mm N	IAX.		
Length		129	mm N	IAX.		
Height (antenna height i	s excluded.)	149	mm N	4AX.		
Antenna height		48	mm N	4AX.		
Weight		Approx.	3.5	kg		
Mounting Position		Vertical axi	s eithei	end up		
Cooling		Water				
		(F	ig. 4)			

ABSOLUTE MAXIMUM RATINGS

		Min.	Max.	Unit
Filament Voltage (Stand-by)		3.8	4.2	\mathbf{v}
Filament Voltage (Operation)		(Fig. 1)	(Fig. 1)	\mathbf{v}
Preheating Time		8	-	s
Average Anode Current		-	900	mAdc
Peak Anode Current		-	2500	mAp
Average Anode Input		-	4600	W
Load VSWR (Continuously)		-	1.5	
Anode Core Temperature		-	160	DegC
Storage Temperature		-30	60	DegC
Antenna Temperature (metal-cerami	c seal point)	-	350	DegC
Case Temperature		-	100	DegC
Water Temperature at Outlet		-	60	DegC

TYPICAL OPERATION

Test conditions : at a matched load, and with the power supply of single phase full-wave rectifier without filter

Filament Voltage (Stand-by)	 4.0	V
Filament Voltage (Operation)	 2.2	\mathbf{V}
Average Anode Current	 840	mA
Peak Anode Voltage	 5.2	kV
Average Power Output (matched load)	 3000	w
Frequency (matched load)	 2455	MHz
Cooling Water Flow	 3	L/min
Water Temperature at Inlet	 25	DegC

Note:

- (1) The information contained herein is tentative and may be changed without prior notice. It is therefore advisable to contact HITACHI before proceeding with the design of equipment incorporating this product.
- (2) Data are based on the Testing Methods for Continuous Wave Magnetrons ED-1501 (ET-145A) set by the Electronic Industries Association of Japan (EIAJ).
- (3) Precautions for Safety: Please see attached news letter of No. NL73M1053.

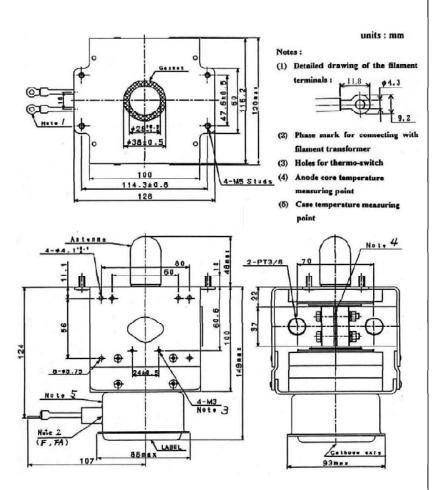


Fig. 5 Dimensional Outline of The 2M252

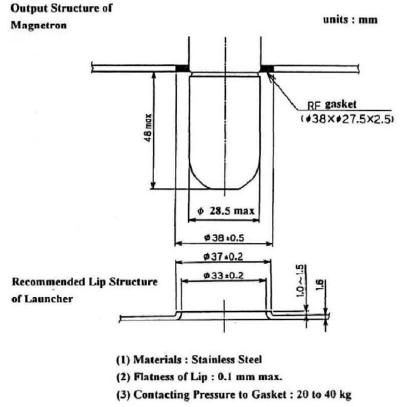


Fig. 6 Details of Output Coupling Portion and Recommended Launcher Design