The HITACHI 2M251 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. Suitable performance and excellent reliability for use in microwave ovens and industrial microwave heating applications
2. 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

MECHANICAL

Dimensions : See dimensional outline (Fig. 5).

Width	120 mm MAX.
Length	129 mm MAX.
Height (antenna height is excluded.)	149 mm MAX.
Antenna height	48 mm MAX.
Weight	Approx. 3.1 kg
Mounting Position	Vertical axis either end up
Cooling	Forced Air (Fig. 4)

ABSOLUTE MAXIMUM RATINGS

	Min.	Max.	Unit
Filament Voltage (Stand-by)	3.8	4.2	V
Filament Voltage (Operation)	(Fig. 1)	(Fig. 1)	V
Preheating Time	8	—	s
Average Anode Current	—	900	mAdc
Peak Anode Current	—	2500	mAdc
Average Anode Input	—	4600	W
Load VSWR (Continuously)	—	4	
Anode Core Temperature	—	160	℃
Storage Temperature	-30	60	℃
Antenna Temperature (metal-ceramic seal point)	—	350	℃
Case Temperature	—	100	℃

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	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 Air Flow	2.0	m^3/min
Static Pressure Drop	270	Pa

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.**

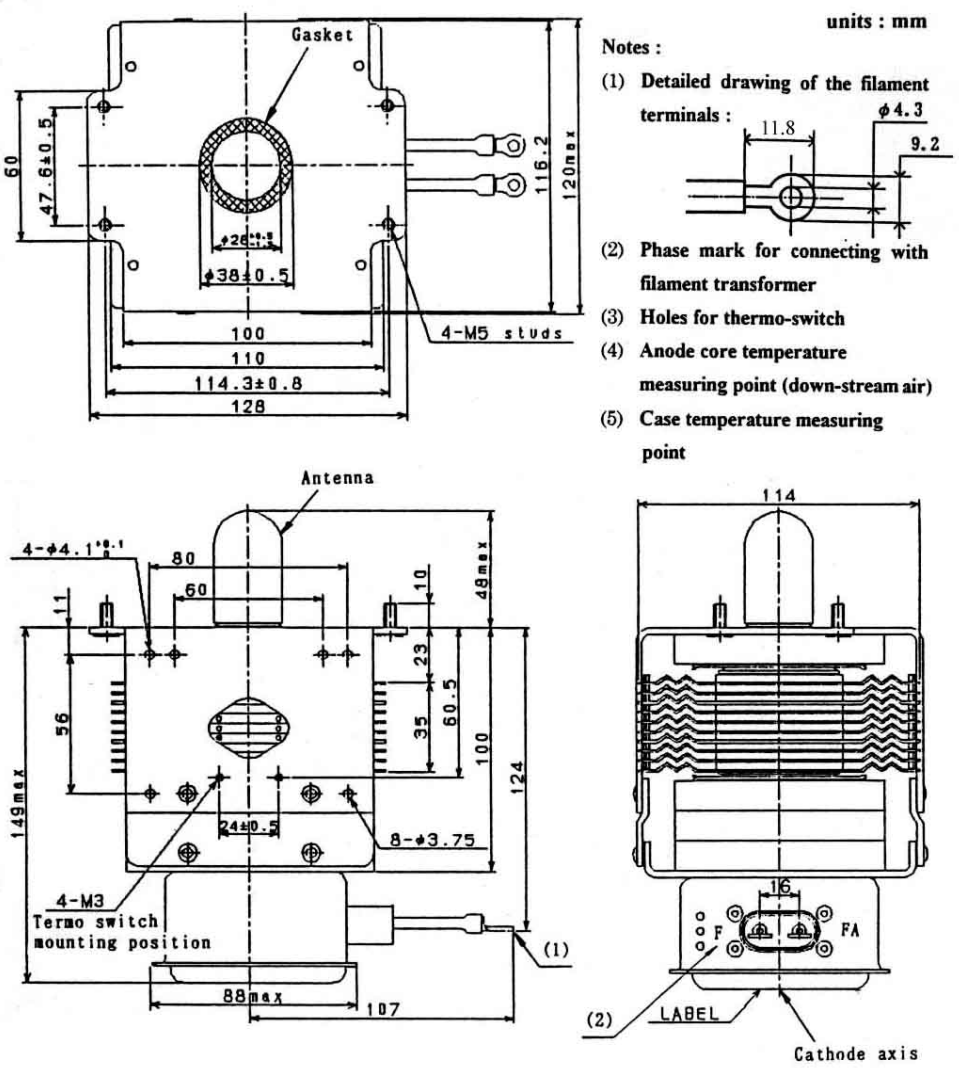

Fig. 5 Dimensional Outline of The 2M251

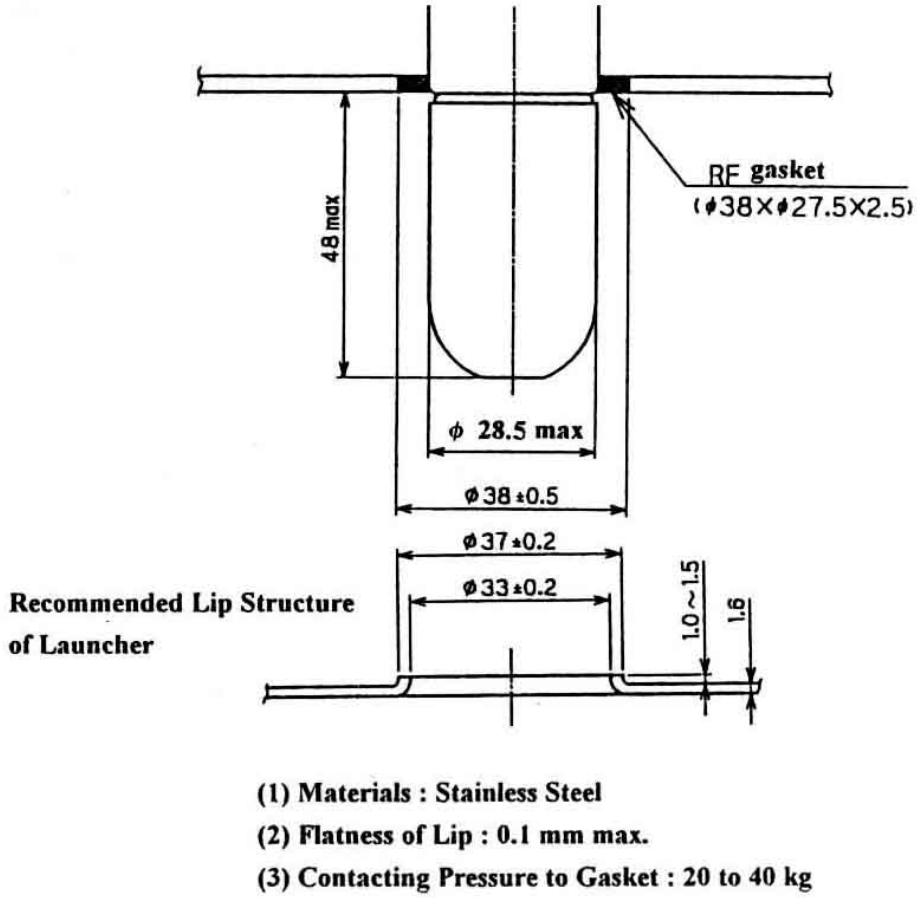

Fig. 6 Details of Output Coupling Portion and Recommended Launcher Design