TEST SPECIFICATION

Description : Continuous Wave Magnetron, 2450MHz, Fixed Frequency.

1. Absolute Maximum Ratings :

Item	Symbol	Min	Max	Unit	Note
Filament Voltage, Stand-by	Ef	4.40	4.80	Vac	
Filament Voltage, Operation	Ef	(See Fig . 1)		Vac	1, 2
Pre-heating Time	Tk	5	-	sec	1, 3
Average Anode Current	Ib	-	900	mAdc	1
Peak Anode Current	ibm	-	2.1	Ap	1
Peak Anode Voltage	ebm	-	5.4	kVp	1
Average Anode Input	Pi	-	4.8	kW	1
Load VSWR (continuous)	σL	-	3.0	-	1
Anode Core Temperature	Tp	-	160	℃	
Case Temperature	Tcase	-	100	℃	
Storage Temperature	-	-30	60	℃	

2. General Test Condition :

Item	Symbol	Value
Filament Voltage, Stand - by	Ef	4.6 Vac
Filament Voltage, Operation	Ef	2.4 Vac
Average Anode Current	Ib	840 mAdc
Load VSWR	σL	1.1 Max
Cooling Air Flow	Q	2.0 m^3/min or greater
Test Equipment		Page 10
Power Supply ----------		single-phase, full-wave rectifier without filter

3. Test Specifications :

Item	Symbol	Nominal	Min	Max	Unit	Note
Filament Current , Stand-by (Tk = 120secMin)	If	19.5	18.0	21.0	Aac	1, 4 ,5
Peak Anode Voltage	ebm	5.1	4.9	5.3	kVp	1,4,5,6
Average Output Power	Po	3000	2750	-	W	1,4,5,6
Frequency	fo	2455	2440	2470	MHz	1, 4 ,5
Stability (at σL ≤ 3)	STIb	-	700	-	mA	1,4,5,7,8
Breakdown Voltage	Et	-	10	-	kVdc	9

Notes :

1. Power supply should be single-phase, full-wave rectifier without filter.
2. Filament voltage should be regulated as shown in Fig. 1.
3. To apply to single phase full-wave rectifier without filter.
   If power supply is different, the figure shall be reviewed.
4. Block diagram of the test equipment is shown in Page No. 10.
5. Launcher and tapered waveguides are shown in Page No. 11.
6. These limits are defined as converted values to 20℃.
   Conversion should be done using the equation shown below.
   ebm (T) = {1-0.002(T-20)} ebm
   Po (T) = {1-0.002(T-20)} Po
   (Where, ebm(T), Po(T) : Values at ambient temperature T(℃))
   Measurement shall be done within 15 sec after ebm is supplied.
7. Any instability such as moding, run-away, should not be observed at any load phase of the specified VSWR.
8. Operate momentarily 5 sec maximum to avoid destruction of the tube.
9. No continuous spark at 10kVdc after gradual voltage up.
10. Load match may vary to higher VSWR in application, but must be reviewed by LG with regard magnitude, phase and dwell time.

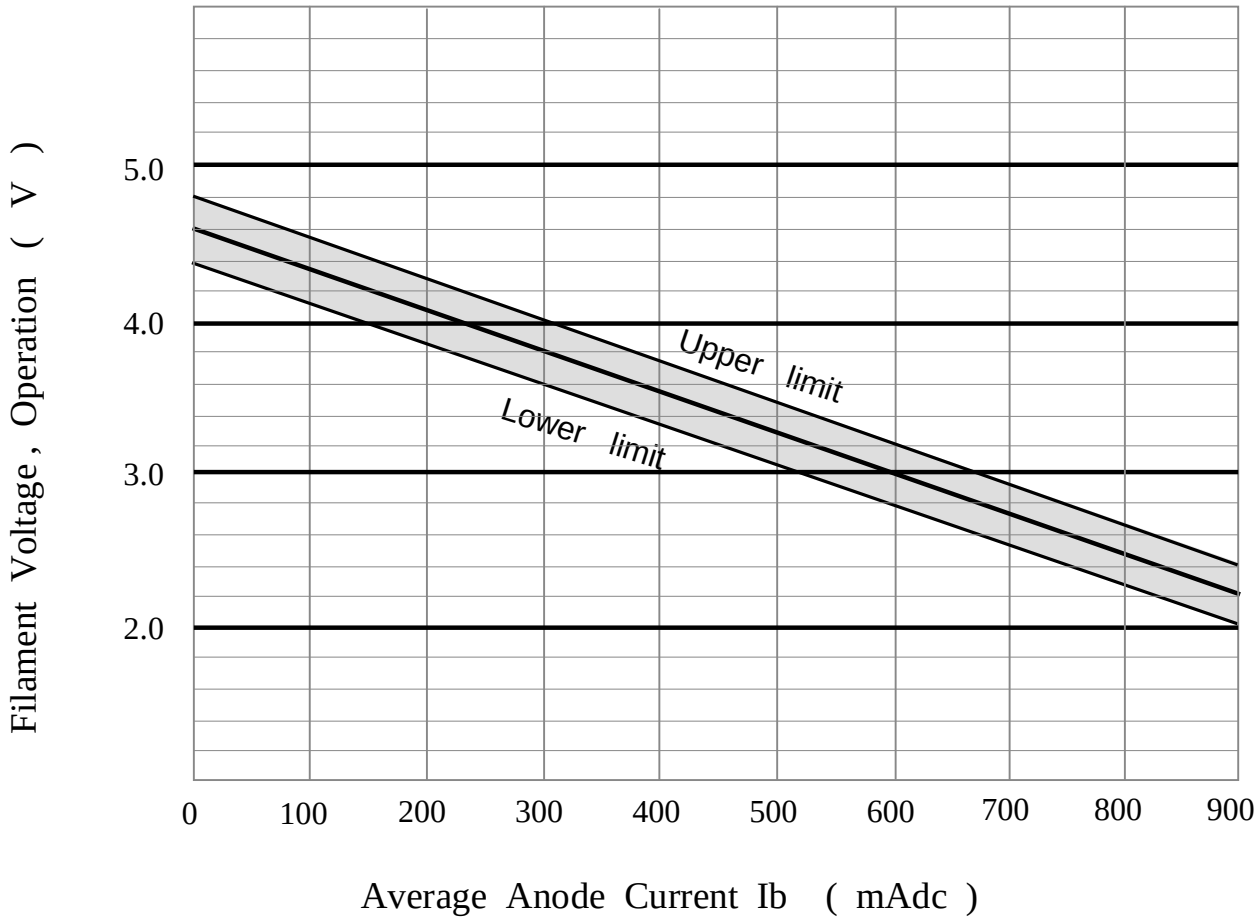
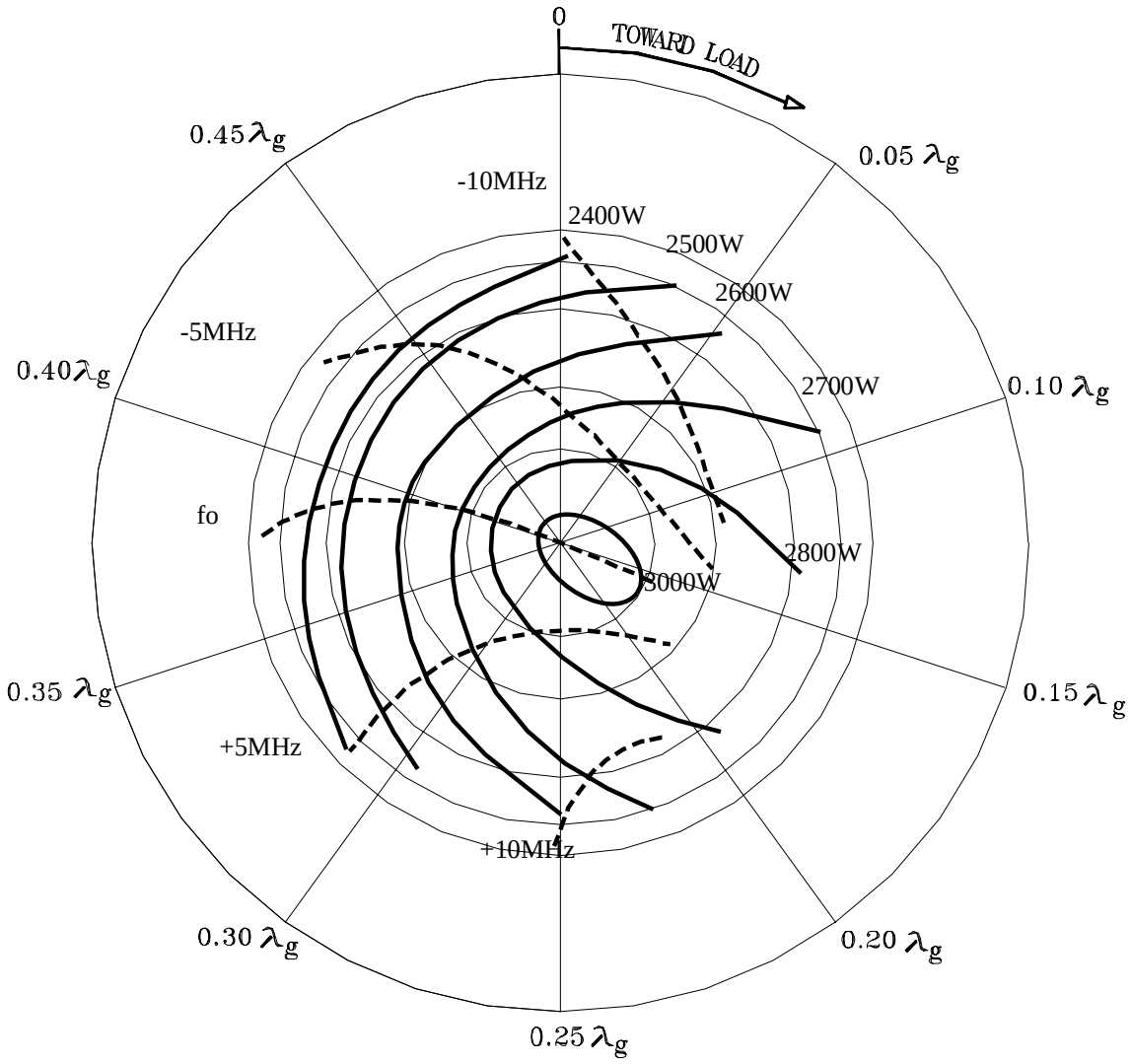


Fig . 1 Reduction Chart of Filament Voltage

REFERENCE PLANE (AXIS OF OUTPUT ANTENNA)



OPERATING CONDITIONS :

POWER SUPPLY: SINGLE PHASE,
FULL-WAVE RECTIFIER WITHOUT FILTER
AVERAGE ANODE CURRENT: 840 mA
FILAMET VOLTAGE : 2.4V
WAVE GUIDE : LG STANDARD LAUNCHER.

——— OUTPUT POWER (W)

- - - - - - FREQUENCY (MHz)

Fig . 2 Rieke Diagram of the 2M285

DIMENSIONAL OUTLINE OF 2M285

DIMENSIONS IN MILLIMETERS