

Toshiba

TECHNICAL DATA

2M66/C

The Toshiba 2M66 is a ceramic sealed fixed frequency continuous wave magnetron, designed to operate on an unsmoothed D.C. anode supply, in the 2420 to 2480MHz frequency range with an average power output of 800 watts.

The tube is required forced air cooling and an external magnetic field. The output fitting is designed for coupling to the rectangular waveguide or cavity directly.

The tube is intended for use in microwave heating and cooking application.

GENERAL DATA

Electrical:

Frequency	2450 ± 30	MHz
Filament voltage	3	V
Filament current	13	A
Cathode preheating time	8	sec
Cold heater resistance	0.03	Ω

Mechanical:

Physical dimensions	See outline drawing
Base and electrical connection	See outline drawing
Mounting position	Any
RF coupling	See attached drawing
Magnetic field	External
Cooling	Forced air
Net weight	1.3 kg approx.
Type of cathode	Thoriated tungsten direct heating

MAXIMUM RATINGS

	Minimum	Maximum	
Filament voltage (preheat)	2.85	3.15	V
Cathode preheating time	5	-	sec
Peak anode voltage	-	4.5	kV
Average anode current	-	350	mA _{dc}
Anode power input	-	1400	W
Load VSWR	-	4	
Anode temperature (See outline drawing measuring point)	-	120	°C
Filament lead temperature (See outline drawing measuring point)	-	250	°C

TYPICAL OPERATION

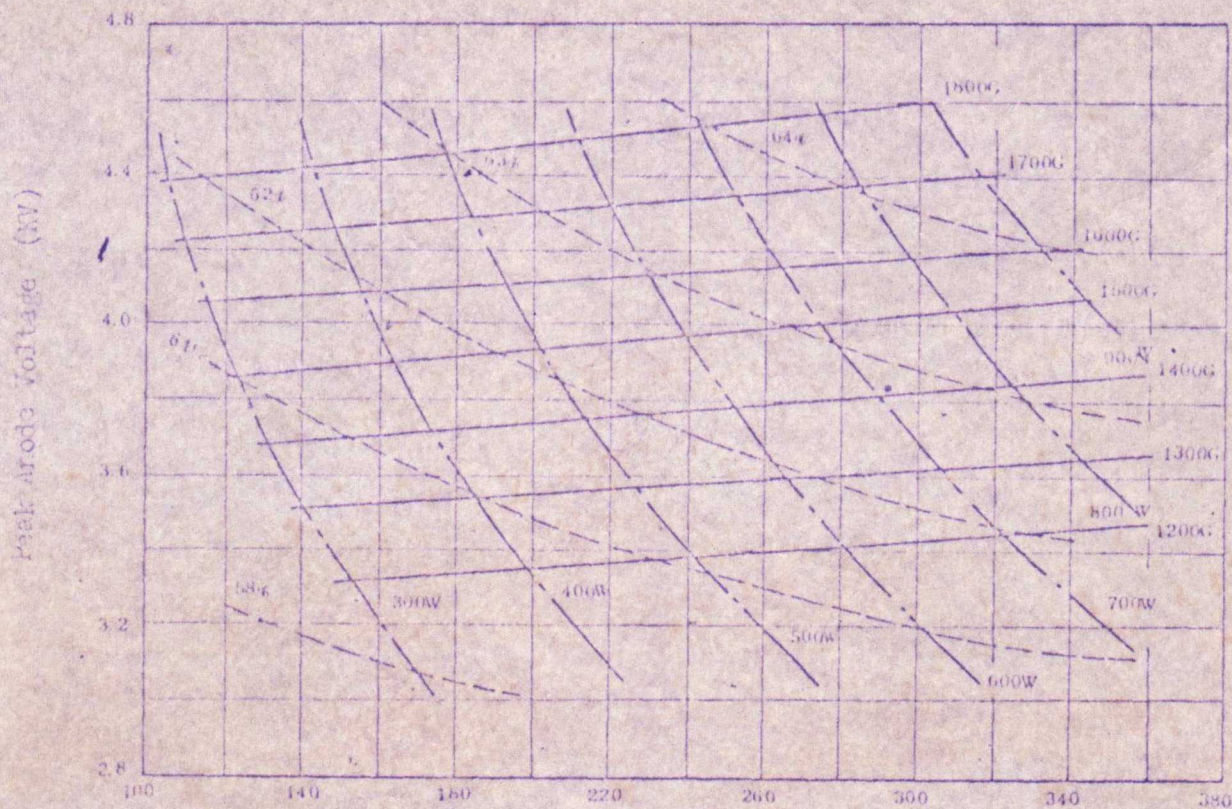
	Unsmoothed fullwave rectified	
Frequency	2450	MHz
Filament voltage (Operation)	3	V
Peak anode voltage	4	kV
Average anode current	300	mA _{dc}
Power output (Standard oven)	600	W
Power output (Matched load)	800	W
Magnetic field intensity	1500	Gauss
Cooling quantity anode (Forced air)	700	l/min.

Performance Chart

Operating Conditions

filament Voltage : 3V

Heater Supply : Uncooled DC



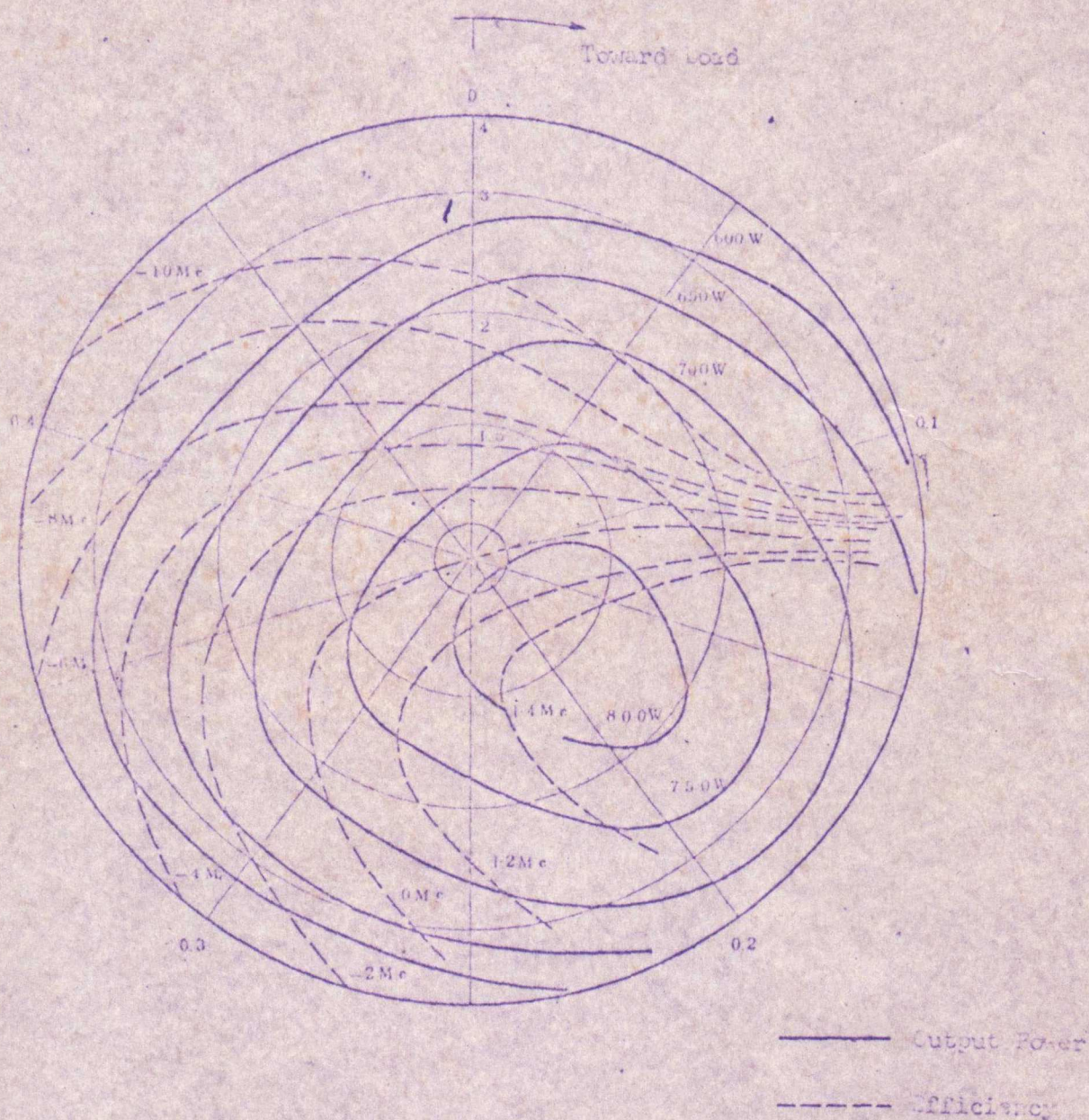
Average Anode Current (mA dc)

————— Magnetic Flux Density
————— Output Power
- - - - - Efficiency

Riske Diagram

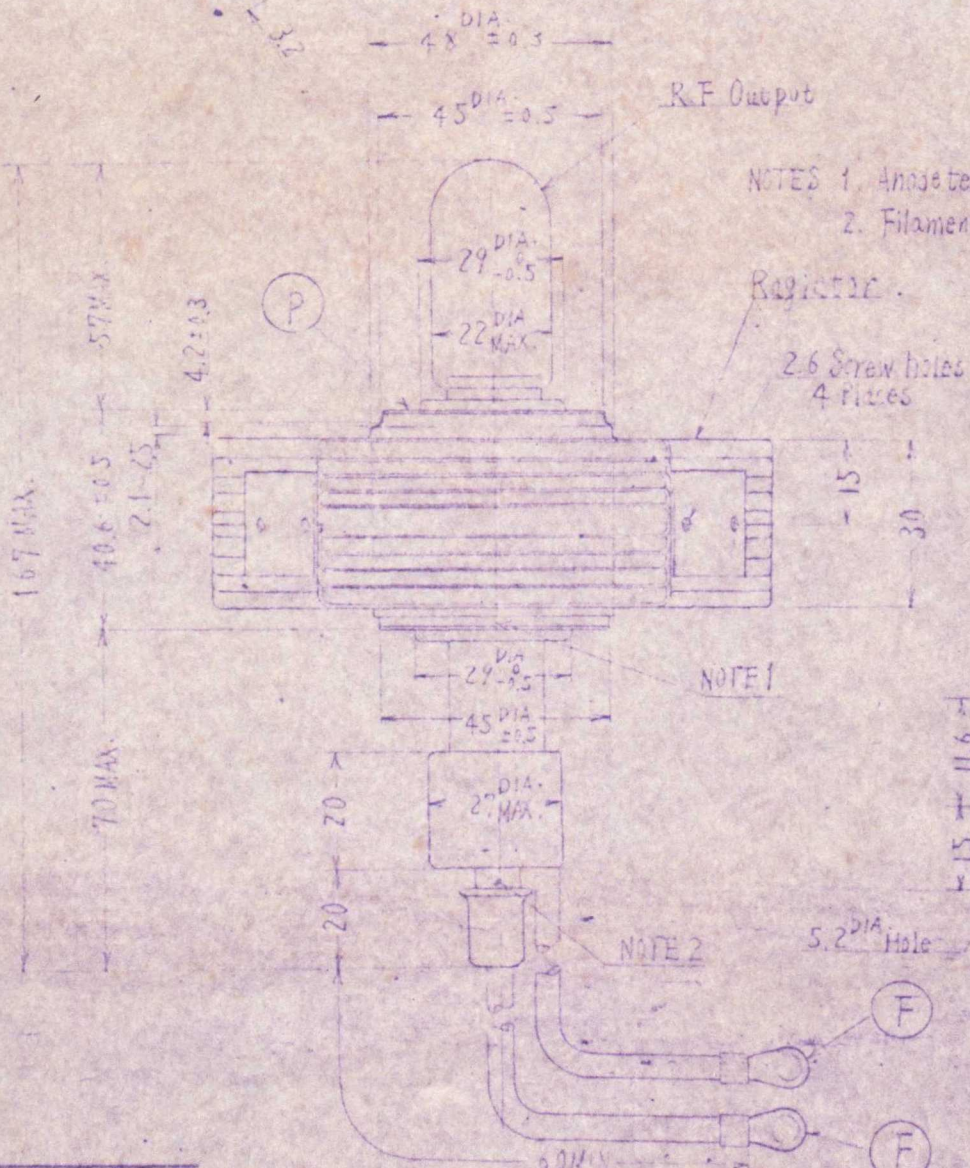
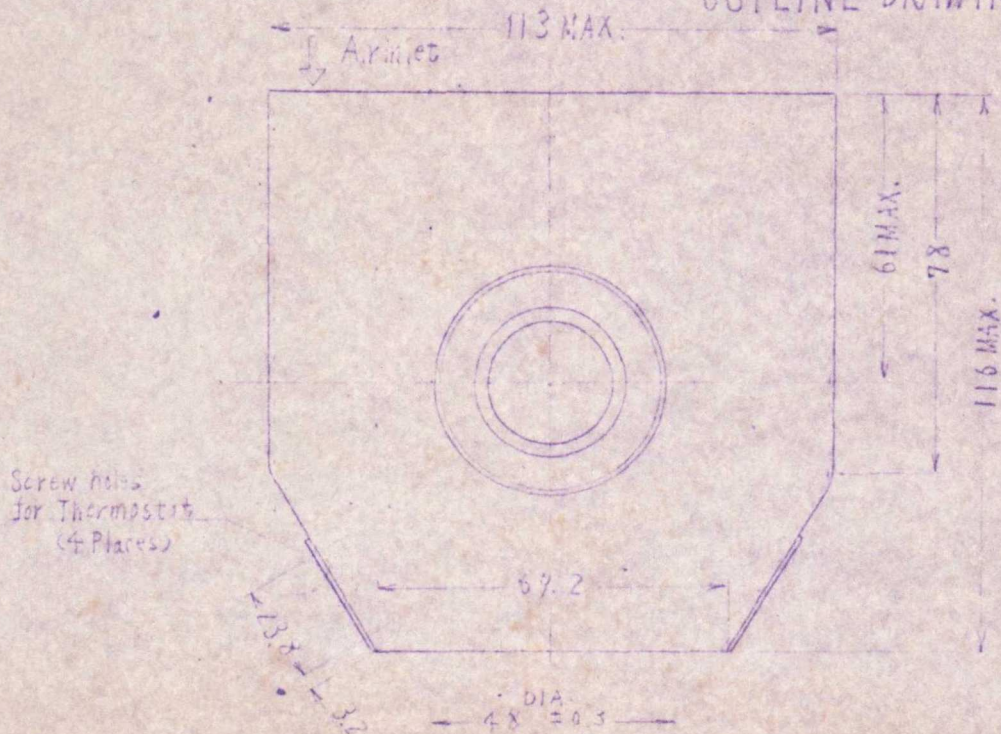
Operating Conditions
Filament Voltage : 3 V
Anode Supply : Unsmoothed AC
Average Anode Current : 300 mA dc
Peak Anode Voltage : 4 kV (Matched Load)
Frequency : 2450 MHz
Phase Reference Plane : Axis of Output Antenna

Reference Plane



OUTLINE DRAWING

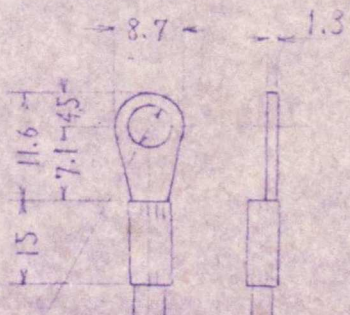
Unit mm



- NOTES 1. Anode temperature measuring point.
2. Filament lead temperature measuring point.

Register.
2.6 Screw holes
4 Places

FILAMENT TERMINAL DETAIL



Toshiba

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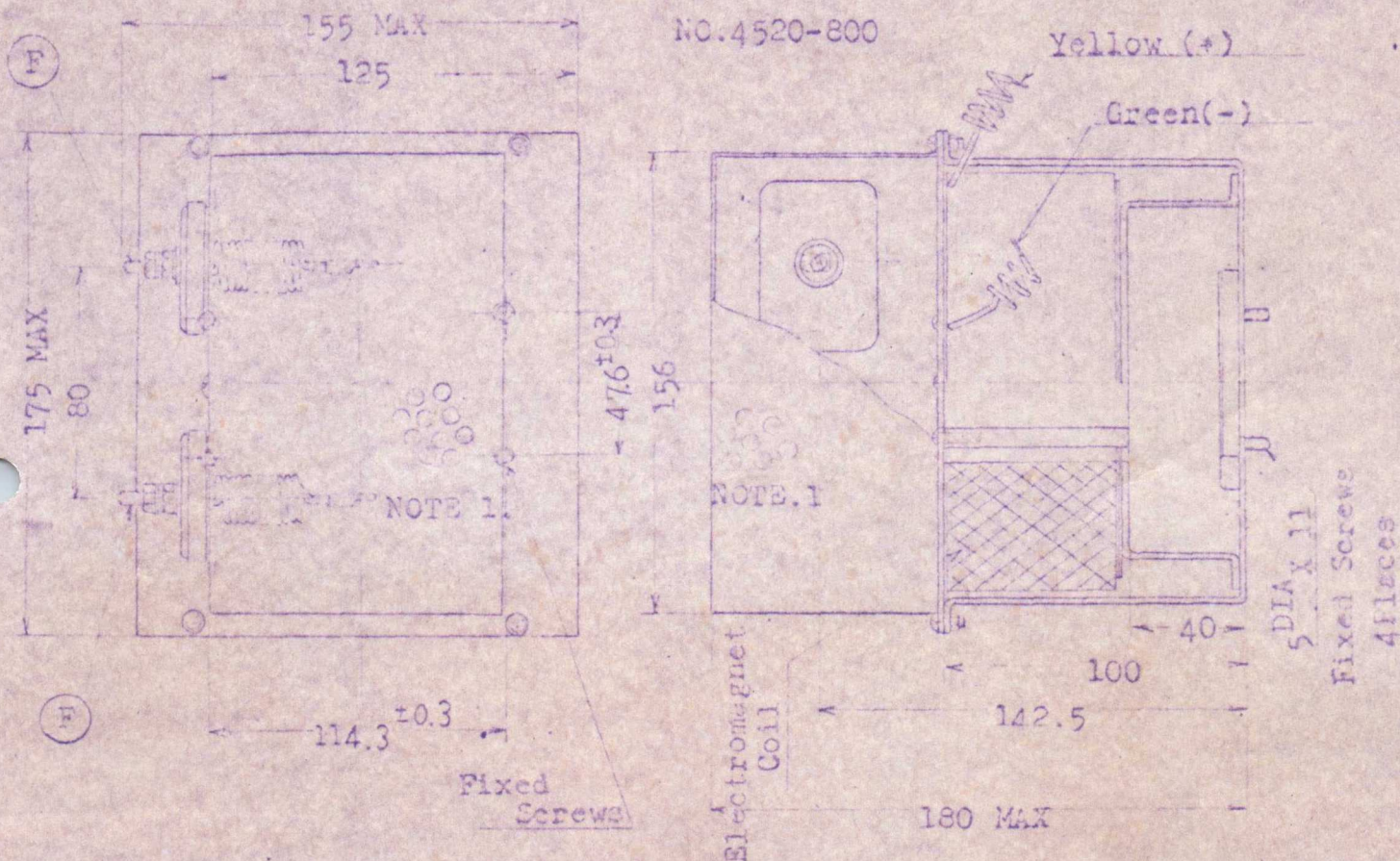
ELECTROMAGNET FOR 2M66

Unit mm.

NO.4520-800

Yellow (+)

Green (-)



NOTE.1 Air Holes for Cooling

