X-Band Magnetron

M1475A is designed for the magnetron of x-band radar system. The frequency range is fixed <9345-9405MHz> and the peak output power is 25kw.

---- MAXIMUM RATINGS ----

	Min	Max	Unit
Peak anode current	6.0	10.0	А
Perk anode power input	-	75	kW
Duty cycle	-	0.001	-
Pulse duration	_	1.0	us
Rate of rise of voltage pulse	_	150	kV/us
Anode temperature	-	100	degree
		cer	ntigrade
V.S.W.R at the output coupler	_	1.5:1	_

---- ELECTRICAL ----

	Min	Typical	Max	Unit
Heater voltage (Note 1)	5.7	6.3	6.9	V
Preheat time	120	-	_	S
Peak anode voltage (Note 2)	7.5	8.0	8.5	kV
Peak output power (Note 2)	20	25	-	kW
Frequency (Note 2)	9345	9375	9405	MHz

Notes:

1. Measured with heater voltage of 6.3V and no anode input power, the heater current limits are 0.43A minimum, 0.6A maximum.

For average pulse input powers greater than 25 watts, the heater voltage must be reduced within 3 seconds after the application of h. t. according to the following schedule:

Heater Voltage Ef =
$$6.3\sqrt{1-\frac{\text{Pi}}{100}}$$
 (V)

Pi:Input Power (Average) (W)

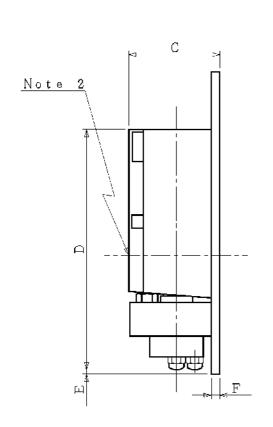
2. Measured at peak anode current 8.0A

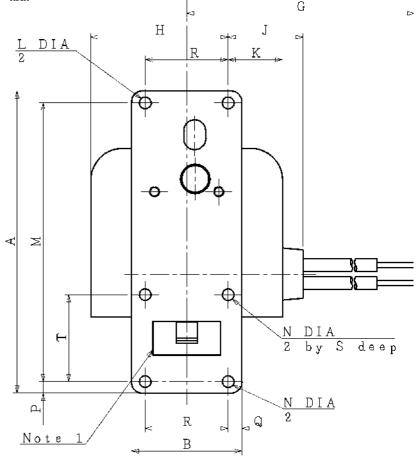
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M1475A

OUTLINE

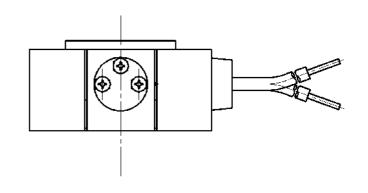
Note: Dimensions are in mm





Outline Dimensions (All dimensions without limits are nominal)

Ref	Millimeters	Ref	Millimeters
Α	113±0.4	L	4.4 ± 0.1
В	41.2 ±0.1	М	104.2 ±0.1
C	35 max	N	4.32 ± 0.075
D	93max	Р	4.75 max
Е	Omin	Q	5.54 max
F	3.2 ± 0.5	R	31±0.1
G	240min	S	5 m i n
Н	52.5max	Т	32.5 ± 0.2
J	30max		
K	21.5 m a x		



LEAD CONNECTIONS

COLOR	ELEMENT		
GREEN	HEATER		
YELLOW	HEATER CATHODE		

Outline Notes

- 1. The position of the waveguide and fixing holes will be such that the valve operates into coupler type UG-40 B/U.
- 2. Anode temperature measured at this point.