



New Japan Radio Co., Ltd.

Technical
Information

Rev.3

M1568B

X-Band Magnetron



M1568B is designed for the magnetron of x-band radar system. The frequency range is fixed <9380~9440MHz> and the peak output power is 25kW.

MAXIMUM RATINGS

	Min	Max	Unit
Peak anode current	6.0	10	A
Peak anode power input	-	75	kW
Duty cycle	-	0.001	-
Pulse duration	0.1	1.0	μs
Rate of rise of voltage pulse	-	95	kV/μs
Anode temperature	-	110	
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)	7.2	8.0	8.5	kV
Peak output power (Note 2)	20	25	-	kW
Frequency (Note 2)	9380	9410	9440	MHz

Note 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:

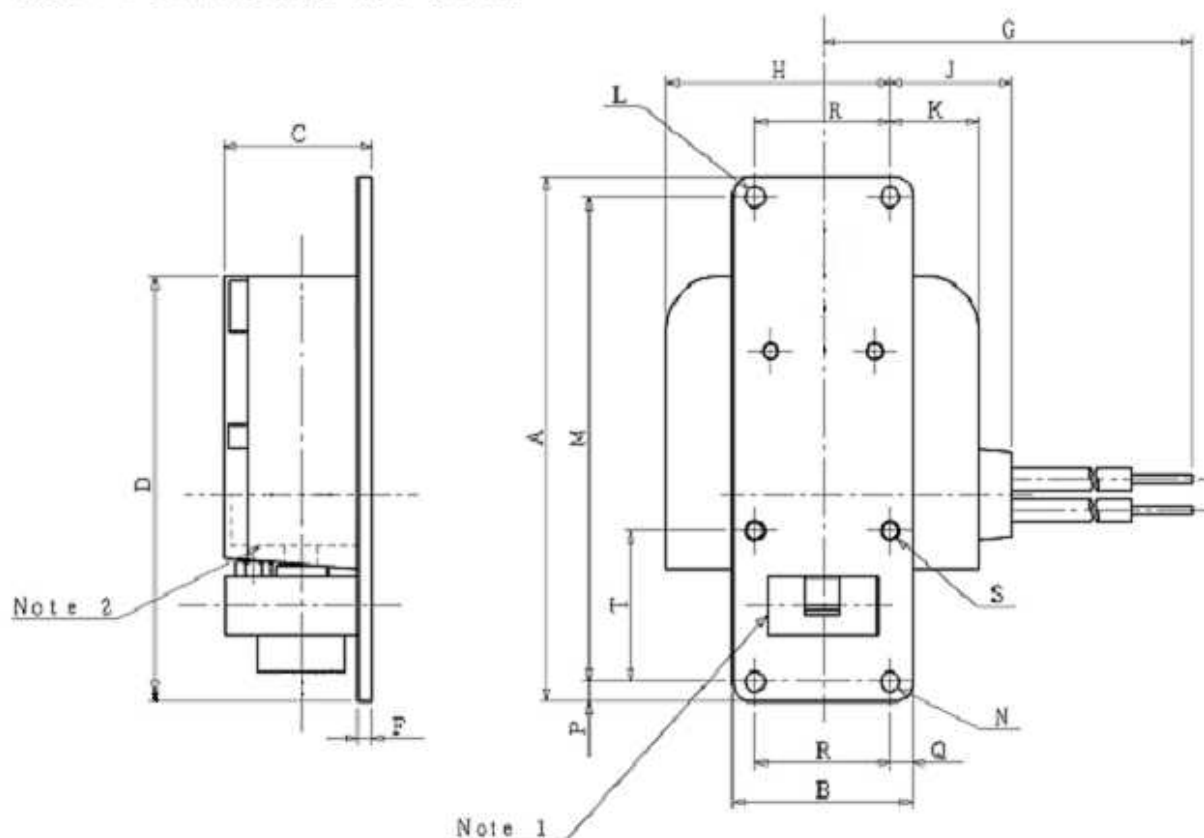
$$\text{Heater Voltage : } E_f = 6.3 \sqrt{1 - \frac{P_i}{100}} \quad [\text{V}]$$

Pi :Input Power(Average)[W]

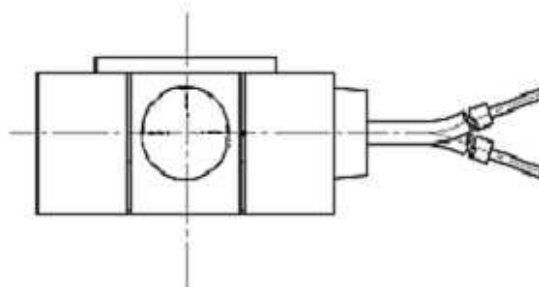
Note 2: Measured at peak anode current 8.0A

OUTLINE

Note : Dimensions are in mm



A	113±0.4	L	2-φ4.4±0.1
B	41.2±0.1	M	104.2±0.1
C	35max	N	2-φ4.32±0.075
D	93max	P	4.75 max
		Q	5.54 max
F	3.2±0.5	R	31±0.1
G	240min	S	2-M4
H	52.5max	T	32.5±0.2
J	30max		
K	21.5max		



Lead Connections

Color	Element
Green	Heater
Yellow	Heater, Cathode

Note 1: The position of the waveguide and fixing holes will be such that the valve operates into coupler type UG-40 B/U.

Note 2: Anode temperature measured at this point.