New Japan Radio Co.,Ltd.

Technical Information

Rev.6

M1568BS

V9 Technology™ Advanced Spectrum Control

X-Band Magnetron

M1568BS 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	0.05	1.2	μs
Rate of rise of voltage pulse	-	90	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)	6.0	6.3	6.6	V
Preheat time	120	-	-	S
Peak anode voltage (Note 2)	7.2	8.0	8.5	kV
Peak output power (Note 2)	22.5	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 1imits 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 : $Ef = 6.3\sqrt{1-\frac{Pi}{100}}$ [V]

Pi :Input Power (Average)[W]

Note 2: Measured at peak anode current 8.0A

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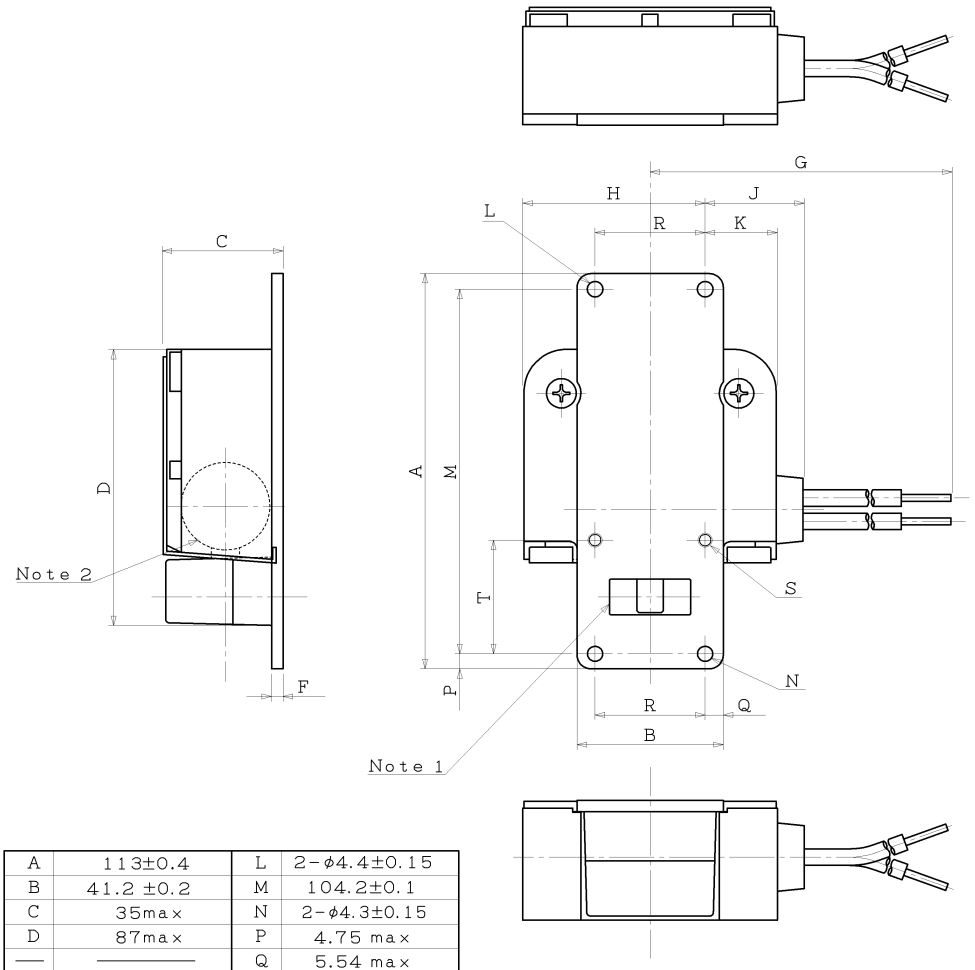
Note 3: Any overshoot of the anode current is not acceptable. The impedance of this magnetron is the same as current magnetron excluding the transient impedance. This means that the additional reactance should be required for adjustment the anode current wave form, if this magnetron will be installed into the similar modulator circuit as before.

OUTLINE

Note : Dimensions are in mm



A	113±0.4	L	2-φ4.4±0.15
B	41.2 ±0.2	M	104.2±0.1
C	35max	N	2-φ4.3±0.15
D	87max	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 mesured at this point.

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