



*New Japan Radio Co., Ltd.*

Technical  
Information

Rev.6

## MAF1615B

X-Band Magnetron



MAF1615B is designed for the magnetron of x-band radar system.  
The frequency range is fixed <9380 - 9440MHz> and the peak output power is 12kW.

### ----- MAXIMUM RATINGS -----

	Min	Max	Unit
Peak anode current (Note3)	4.6	6.8	A
Average anode power input	-	40	W
Duty cycle	-	0.001	-
Pulse duration	0.07	1.25	us
Rate of rise of voltage pulse	-	80	kV/us
Anode temperature	-	120	degree centigrade
V.S.W.R at the output coupler	-	1.5:1	-

### ----- ELECTRICAL -----

	Min	Typical	Max	Unit
Heater voltage				
at stand by and short pulse	7.5	8.0	8.5	V
at long pulse	6.0	6.3	6.6	V
Heater current (Note 1)	-	-	-	A
Preheat time	65	-	-	S
Peak anode voltage (Note 2)	5.4	5.8	6.0	kV
Peak output power (Note 2)	12.0	12.5	-	kW
Frequency (Note 2)	9380	9410	9440	MHz

### Notes:

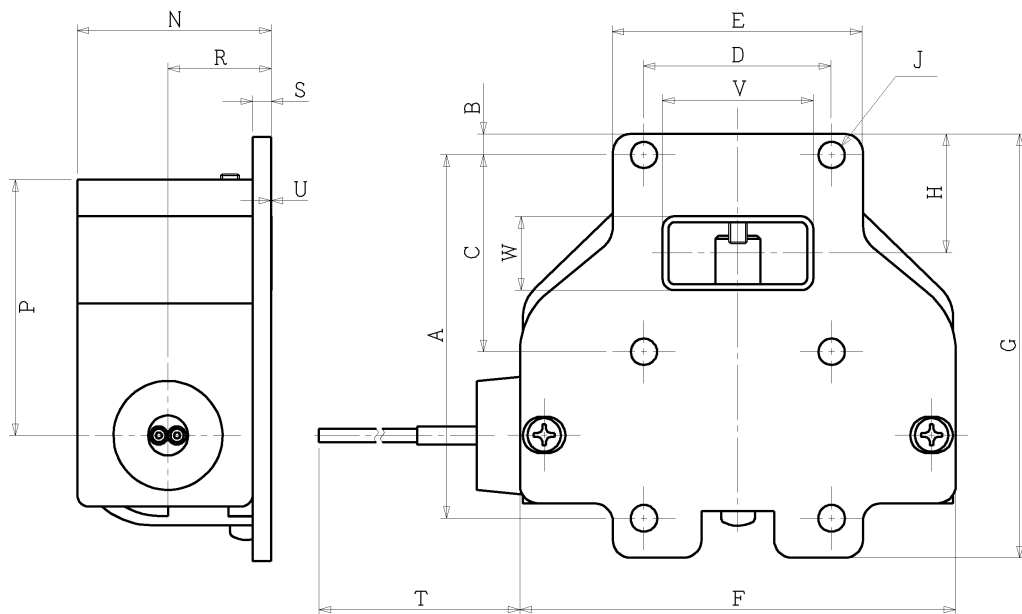
1. Measured with heater voltage of 8.0V the heater current limits are 0.62A minimum, 0.68A maximum and with heater voltage 6.3V the heater current limits are 0.52A minimum, 0.58A maximum.  
Reduction of heater voltage at operating is required.
2. Measured at peak anode current 5.8 A.



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



Anode temperature  
measured at this point

DEMENSIONS Unit:mm

A	60±0.2	L	9
B	3.75	M	7
C	32.5±0.1	N	33MAX
D	31±0.1	P	43
E	41.3	R	17
F	72	S	3
G	70	T	185±10
H	20	U	0.1±0.05
J	4-φ4.32 ±0.08	V	24.9±0.2
K	2-φ4.4 ±0.1	W	12.2±0.2

Lead Connections

Colour	Element
Green	Heater
Yellow	Heater, Cathode

