New Japan Radio Co.,Ltd.

Technical Information

Rev.1

MAF1425B

X-Band Magnetron

MAF1425B is designed for the magnetron of x-band radar system.
The frequency range is fixed <9380 - 9440MHz> and the peak output power is 10.5kW.

---- MAXIMUM RATINGS ----

	Min	Max	Unit
Peak anode current	4.0	6.0	A
Average anode power input	-	35	W
Duty cycle	-	0.001	-
Pulse duration	0.07	1.25	us
Rate of rise of voltage pulse	-	100	kV/us
Anode temperature	-	110	degree centigrade
V.S.W.R at the output coupler	-	1.5:1	-

---- ELECTRICAL ----

	Min	Typical	Max	Unit
Heater voltage	6.0	6.3	6.6	V
Heater current (Note 1)	-	-	-	A
Preheat time	60	-	-	S
Peak anode voltage (Note 2)	5.4	5.6	6.0	kV
Peak output power (Note 2)	10.0	10.5	-	kW
Frequency (Note 2)	9380	9410	9440	MHz

Notes:

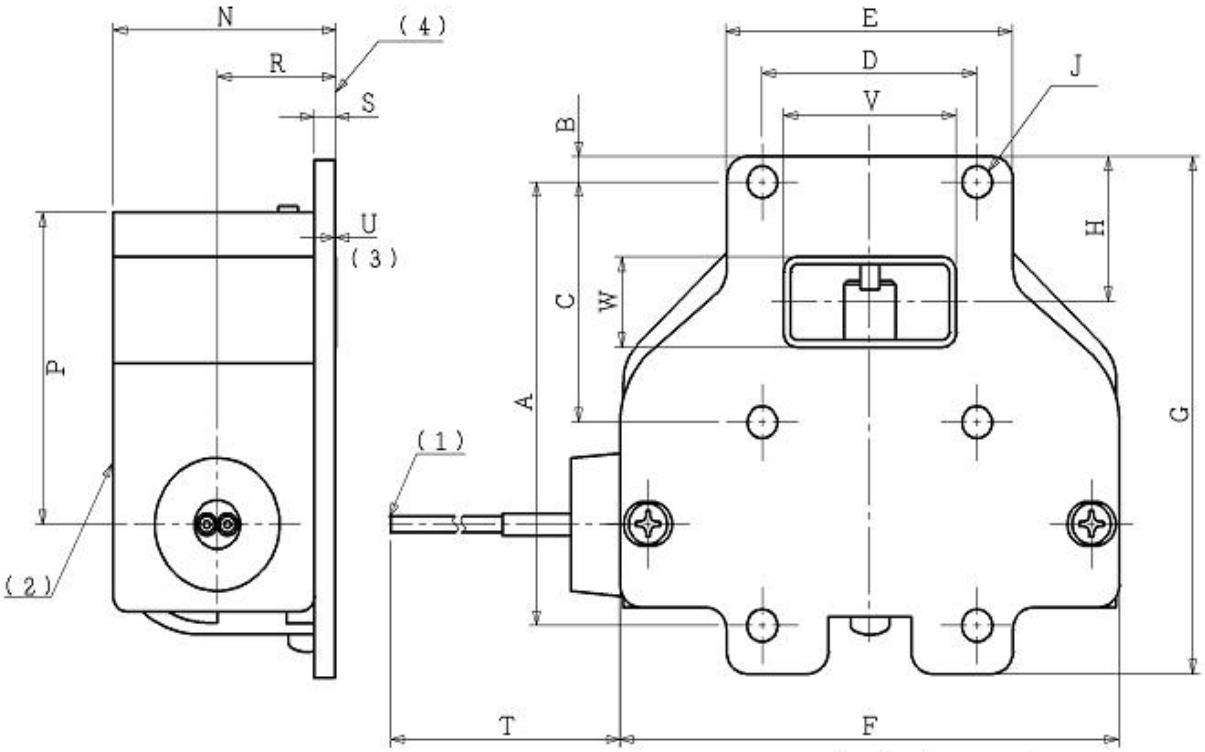
1. Measured with heater voltage of 6.3V and no anode input power, the heater current limits are 0.5A minimum, 0.6A maximum. No reduction of heater voltage at operating is required.
2. Measured at peak anode current 5.0 A.
3. Any overshoot of the anode current is not acceptable. And, sagging waveform of the anode current causes the poor spectrum and the shifting frequency in the pulse since a magnetron current pushing characteristics.

1-1,Fukuoka 2-chome, Fujimino-city
Saitama-prefecture. 356-8510 Japan

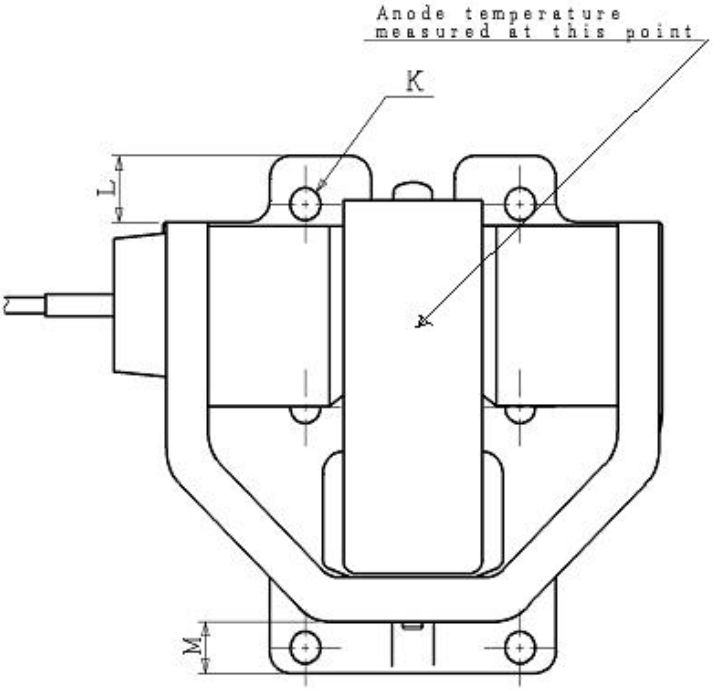
Phone:049-278-1298
Fax :049-278-1419

OUTLINE

Note: Dimensions are in 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	$4-\phi 4.32^{\pm 0.08}$	V	24.9±0.2
K	$2-\phi 4.4^{\pm 0.1}$	W	12.2±0.2



Lead Connections

Colour	Element
Green	Heater
Yellow	Heater, Cathode

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