



New Japan Radio Co., Ltd.

Technical
Information

Rev.2

MSF1425B

X-Band Magnetron

MSF1425B 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. 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.



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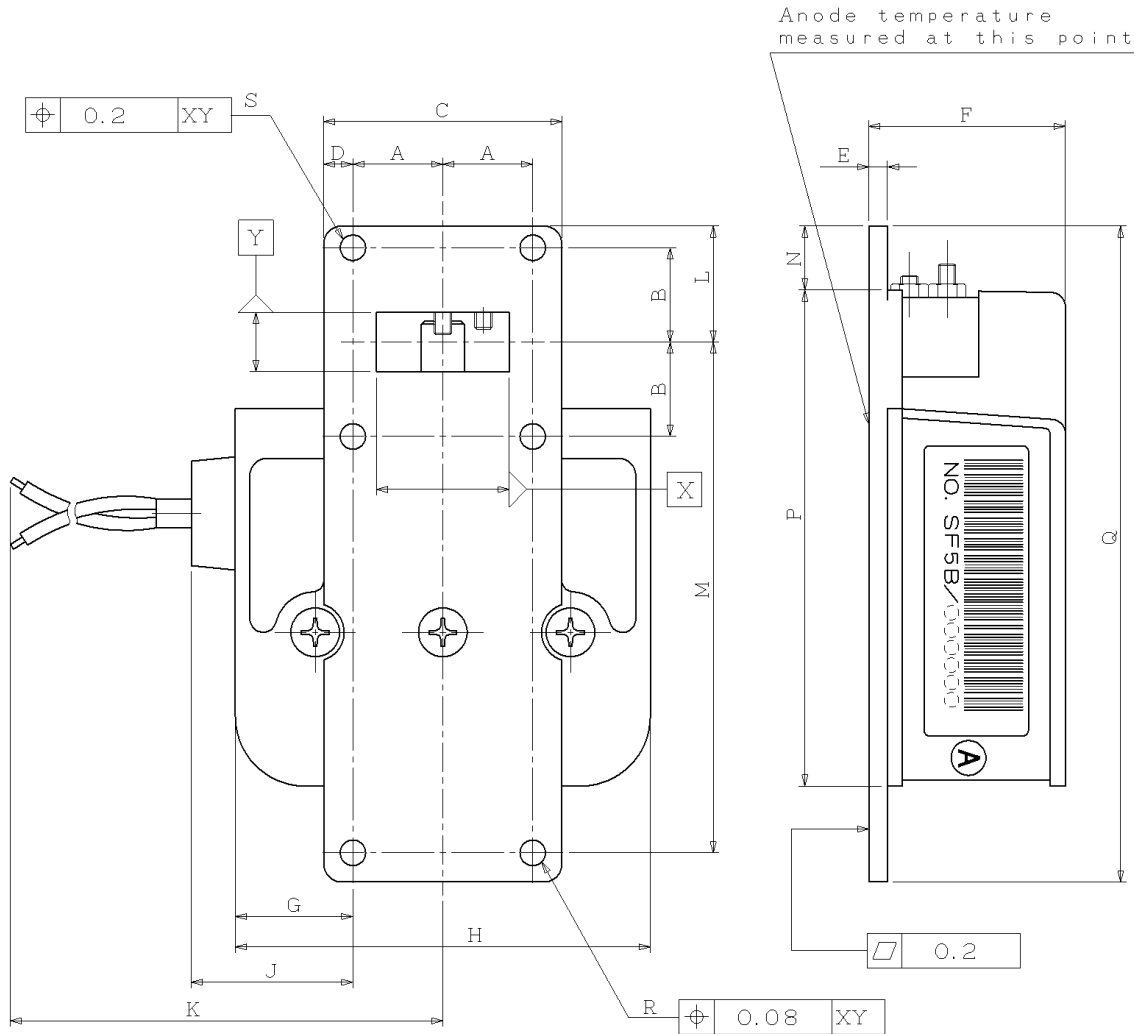
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OUTLINE

Note: Dimensions are in mm



	MIN	MAX		MIN	MAX
A	15.5		K	240	-
B	16.25		L	19.6	20.2
C	40.8	41.2	M	88	
D	4.8	5.2	N	10.0	-
E	2.7	3.7	P	-	86.0
F	-	36.0	Q	112.6	113.2
G	-	21.5	R	φ4.3	φ4.375
H	-	74.0	S	φ4.4	φ4.5
J	-	30.0			

Lead Connections

Colour	Element
Green	Heater
Yellow	Heater, Cathode