

Released

X-band Magnetron

Model No. MAF1425B

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Microwave Business Headquarters

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Microwave Business Headquarters

Title:

Datasheet of MAF1425B

Reference No.:

DS-MAF1425B

Rev.:

04E

Sheet:

1 / 3

■ GENERAL DESCRIPTION

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.



■ ELECTRICAL CHARACTERISTICS

| PARAMETERS | MINIMUM | TYPICAL | MAXIMUM | UNITS |
|-----------------------------|---------|---------|---------|-------|
| Heater voltage (note 1) | 6.0 | 6.3 | 6.6 | V |
| Heater current | 0.5 | 0.55 | 0.6 | A |
| Preheat time | 60 | - | - | s |
| Peak anode voltage (note 2) | 4.4 | 4.5 | 4.8 | kV |
| Peak output power (note 2) | 10.0 | 10.5 | - | kW |
| Frequency (note 2) | 9380 | 9410 | 9440 | MHz |

■ ABSOLUTE MAXIMUM RATINGS

These ratings cannot necessarily be used simultaneously and no individual ratings should be exceeded.

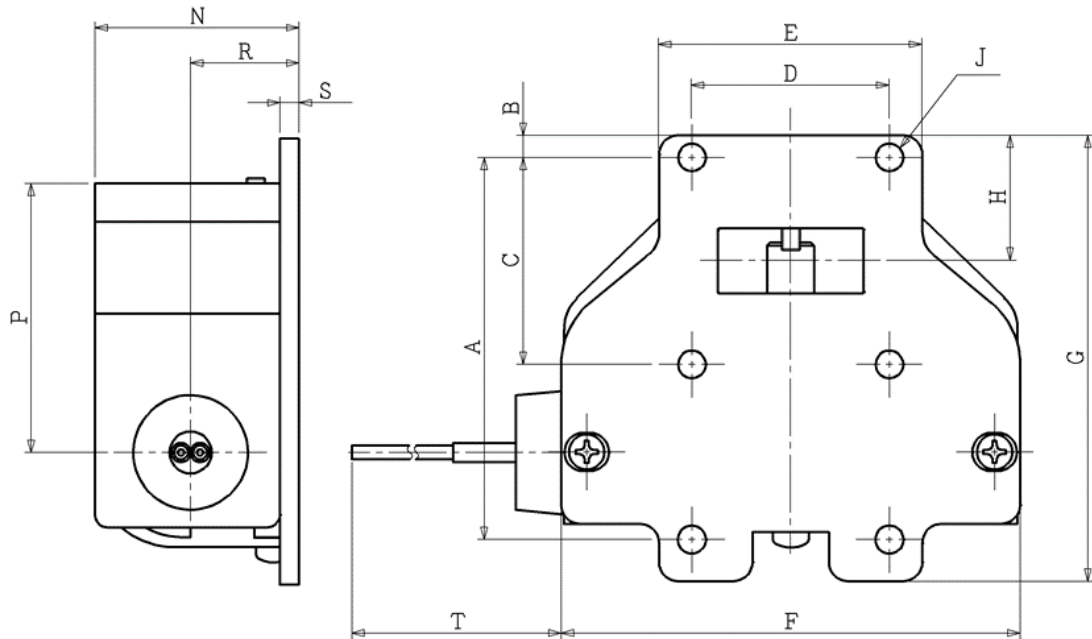
| PARAMETERS | MINIMUM | MAXIMUM | UNITS |
|-------------------------------|---------|---------|-------|
| Peak anode current (note 3) | 2.5 | 6.0 | A |
| Average anode power input | - | 25 | W |
| Duty cycle | - | 0.001 | - |
| Pulse duration | 0.05 | 1.25 | μs |
| Rate of rise of voltage pulse | - | 100 | kV/μs |
| Anode temperature | - | 100 | °C |
| VSWR at the output coupler | - | 1.5 : 1 | - |

Notes

1. With no anode input power. No reduction of heater voltage at operating is required.
2. Measured at peak anode current 4.5A.
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.

*Above Specifications are subject to change without notice.

■ OUTLINE



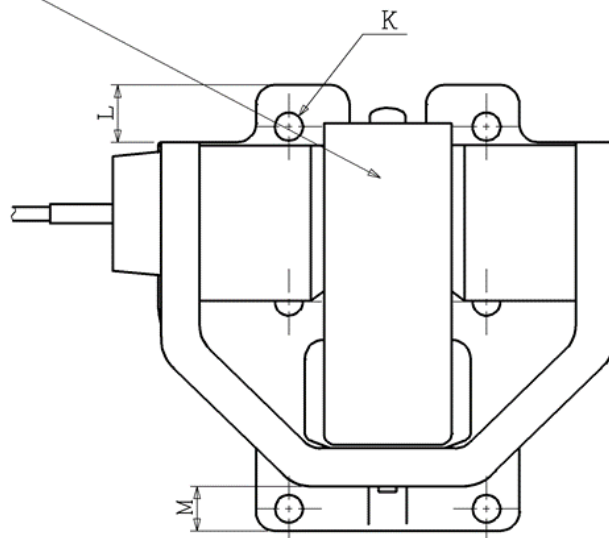
Anode temperature
measured at this point

DEMENSIONS Unit:mm

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

Lead Connections

| Colour | Element |
|--------|-----------------|
| Green | Heater |
| Yellow | Heater, Cathode |



Top view

(Dimensions are expressed in "mm".)

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