

## M1302/M5020

### S-Band Magnetron

M1302/M5020 is designed for the magnetron of S-band radar system. The frequency range is fixed between 3.04GHz and 3.06GHz. The peak output power is 25kW Min.

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

|                                | Min | Max   | Unit  |
|--------------------------------|-----|-------|-------|
| Peak anode current             | 6.0 | 12.0  | A     |
| Peak anode power input         | -   | 100   | kW    |
| Duty cycle                     | -   | 0.001 | -     |
| Pulse duration                 | -   | 1.0   | Us    |
| Rate of rise of voltage pulse  | -   | 130   | kV/us |
| Anode temperature              | -   | 120   | °C    |
| V.S.W.R. at the output coupler | -   | 1.5:1 | -     |

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

|                             | Min  | Typical | Max  | Unit |
|-----------------------------|------|---------|------|------|
| Heater voltage(Note 1)      | 5.7  | 6.3     | 6.9  | V    |
| Preheat time                | 180  | -       | -    | S    |
| Peak anode voltage (Note 2) | 7.5  | 8.0     | 8.5  | kV   |
| Peak output power (Note 2)  | 25   | 27      | -    | kW   |
| Frequency (Note2)           | 3.04 | 3.05    | 3.06 | GHz  |

Note:

1. Measured with heater voltage of 6.3V and no anode input power, the heater current limits are 1.1A minimum, 1.4A 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:

| Meat input power(W) | Heater Voltage(V) |
|---------------------|-------------------|
| Less than 25        | 6.3               |
| 25 to 62            | 5.3               |
| 62 to 100           | 4.5               |

2. Measured at peak anode current 8.0A.

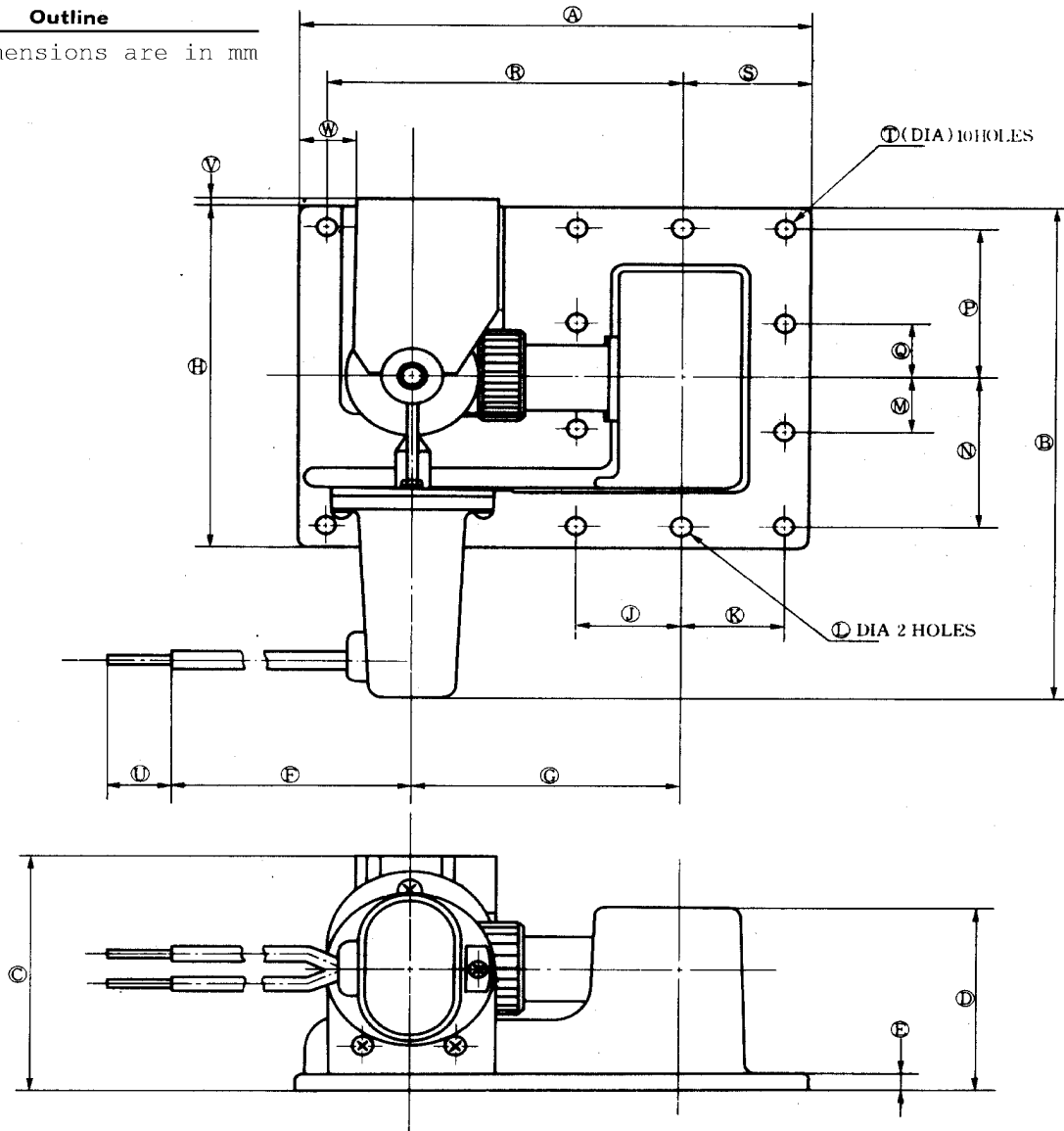
For further information on the use of the magnetron, Please contact New JRC. New JRC reserves the right to change the specification of goods without notice.

Rev.1

# M1302/M5020

## Outline

Note: Dimensions are in mm



## LEAD CONNECTIONS

| COLOR  | ELEMENT        |
|--------|----------------|
| GREEN  | HEATER         |
| YELLOW | HEATER,CATHODE |

## Outline Dimensions (All dimensions without limits are nominal.)

| Ref | Inches       | Millimeters  | Ref | Inches      | Millimeters  |
|-----|--------------|--------------|-----|-------------|--------------|
| A   | 6.500max     | 165.1max     | M   | 0.750±0.002 | 19.050±0.051 |
| B   | 7.000max     | 177.8max     | N   | 2.031±0.002 | 51.587±0.051 |
| C   | 3.500max     | 88.90max     | P   | 2.031±0.002 | 51.587±0.051 |
| D   | 2.562max     | 65.07max     | Q   | 0.750±0.002 | 19.050±0.051 |
| E   | 0.236        | 6            | R   | 4.375       | 111.1        |
| F   | 11.750~12.50 | 298.5~311.2  | S   | 1.700       | 43.18        |
| G   | 3.250±0.250  | 82.55 ±6.35  | T   | 0.250~0.251 | 6.35~6.63    |
| H   | 4.850max     | 123.2max     | U   | 0.500       | 12.70        |
| J   | 1.281±0.002  | 32.537±0.051 | V   | 0.197max    | 5.00max      |
| K   | 1.281±0.002  | 32.537±0.051 | W   | 0.629       | 16           |
| L   | 0.250~0.251  | 6.35~6.375   |     |             |              |