

# PRODUCT SPECIFICATIONS

|           |             |      |      |
|-----------|-------------|------|------|
| Spec No.  | 607201 G    | Page | 3/10 |
| Model No. | 2M259-M12WJ |      |      |

This Specifications is based on the General Rules of Inspection for Electron Tubes ED-1101 and the Testing Methods for Continuous Wave Magnetrons ED-1501 set by the Electronic Industries Association of Japan (EIAJ).

|   |  |                    |                  |                  |     |            |                |         |            |                  |                  |         |
|---|--|--------------------|------------------|------------------|-----|------------|----------------|---------|------------|------------------|------------------|---------|
| Description                               | Continuous wave Magnetron (Fixed Frequency, Packaged Magnet, Probe Output) |                    |                  |                  |     |            |                |         |            |                  |                  |         |
| Outline                                   | Refer Outline Drawing  |                    |                  |                  |     | Net weight | Approx. 2.3 Kg |         |            |                  |                  |         |
| Absolute Maximum Ratings                  | Item   | Ef                 | Ef               | tk               | Ebm | Ib         | Ibm            | Pi      | $\sigma L$ | Tp               | Tc               | Storage |
|   |  | Start-by Operation |                  | ( <sup>2</sup> ) |     |            |                |         |            | ( <sup>4</sup> ) | ( <sup>4</sup> ) |         |
|   | Unit   | V                  | V                | sec              | kV  | mAdc       | A              | kW      | -          | °C               | °C               | °C      |
|   | Max.   | 5.0                | ( <sup>2</sup> ) | -                | 4.3 | 750        | 2.1            | 2.6     | 4          | 180              | 120              | 60      |
| Min.                                      | 4.4  | ( <sup>3</sup> )   | 5                | -                | -   | -          | -              | -       | -          | -                | -30              |         |
| Standard Test Conditions ( <sup>1</sup> ) | 4.6  | 3.4                | 8                | -                | 725 | -          | -              | MAX 1.1 | -          | -                | -                | -       |

## Test Specifications

| Test Item ( <sup>b</sup> )    | Test Method (ED-1501)                          | Test Conditions ( <sup>c</sup> )                            | Symbol               | Nominal                     | Limit           |      | Unit |  |
|-------------------------------|--|---|----------------------|-----------------------------|-----------------|------|------|--|
|                               |  |   |                      |                             | Min.            | Max. |      |  |
| * Filament Current            | 4.1.1  | tk=120s   | If                   | 20                          | 18              | 22   | A    |  |
| Peak Anode Voltage            | 4.3.1  | ( <sup>5</sup> )  | ebm                  | 4.00                        | 3.80            | 4.20 | kV   |  |
| Average Output Power (1)      | 4.3.3.1  | ( <sup>5</sup> )  | Po(1)                | 2030                        | 1830            | -    | W    |  |
| Frequency                     | 4.3.4  | ( <sup>5</sup> )  | f                    | 2455                        | 2440            | 2470 | MHz  |  |
| Breakdown Voltage             | 4.2  | Eb=10kVdc or 7.1kVac ( <sup>6</sup> )<br>grading voltage up | BVaf                 | No unusual phenomenon occur |                 |      |      |  |
| * Stability Moding            | 4.3.11.2                                       | $\sigma L=3$ or less  | ST                   | No moding occur             |                 |      |      |  |
| Insulation                    | -  | 1kVdc   | Raf                  | -                           | 100             | -    | MΩ   |  |
| ** Life Test ( <sup>7</sup> ) | 4.5.1  | -   | t                    | -                           | 500             | -    | h    |  |
| ** Life Test End Point        | Variation Rate against Average Output Power(1) | 4.3.3.1   | ( <sup>7</sup> )     | Po(1)                       | -               | -    | 20 % |  |
|                               | Stability Moding (1)                           | 4.3.11.2  | $\sigma L=3$ or less | ST                          | No moding occur |      |      |  |

## Classification of tests.

\*\* mark: Type approval Test.

\* mark: Design Test.

None. Production Test.

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Fig.1 Cut back of Filament voltage on operation condition

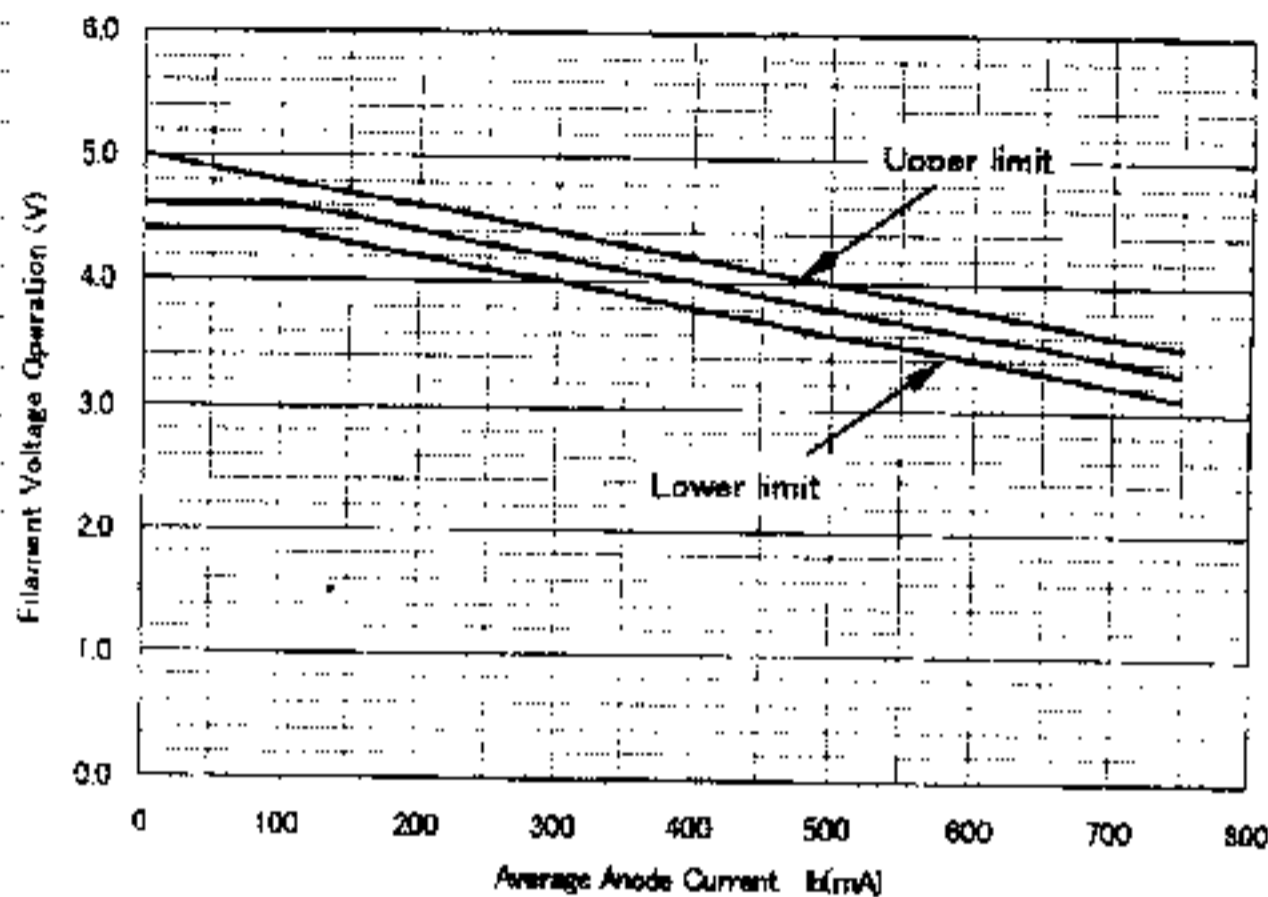
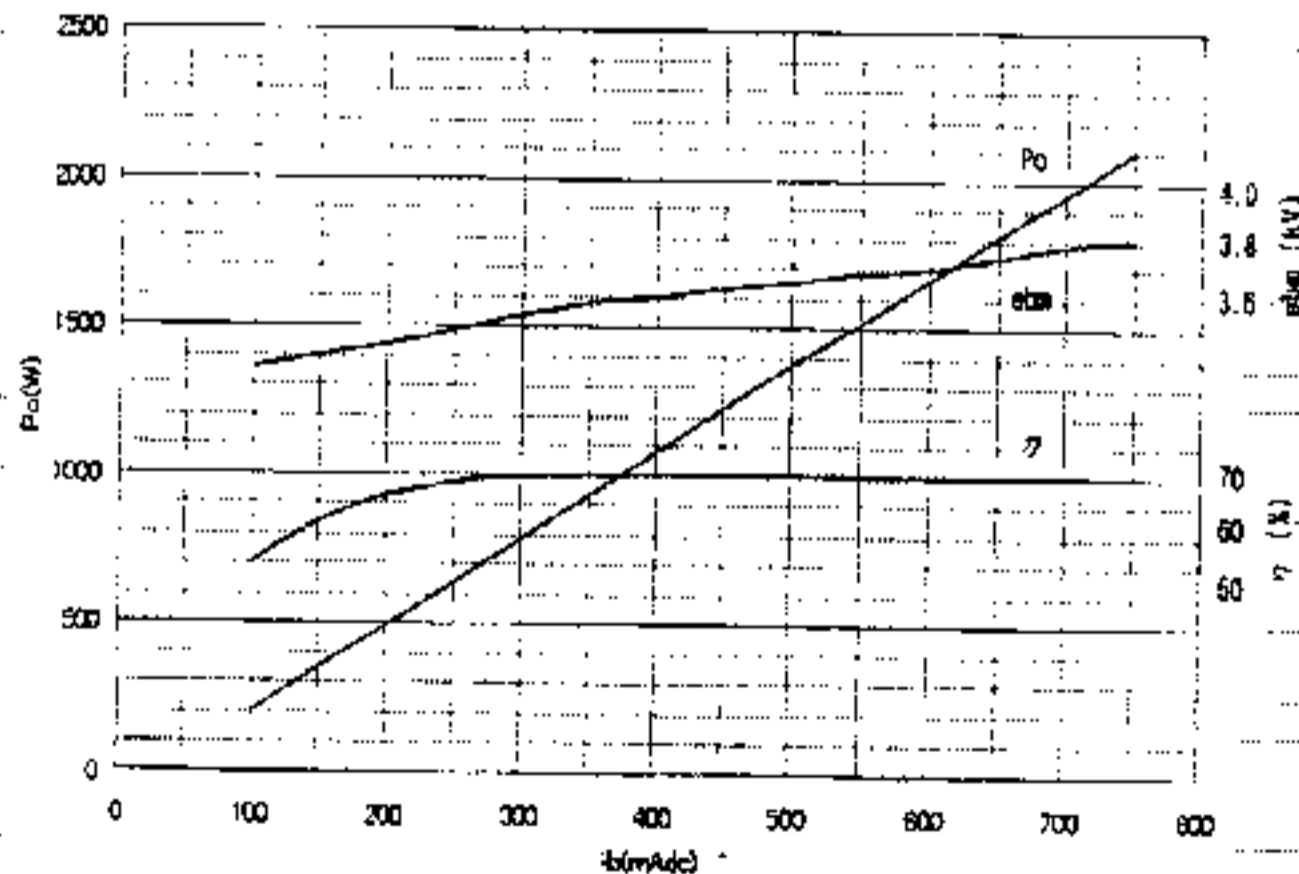


Fig.2 Performance Chart



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