

**INDUSTRIAL X-RAY TUBE
I-2122**

X-ray Tube for Industrial Use

- ◆ The X-ray tube I-2122, which has mini-focus 0.15 × 0.1 is designed for non destructive X-ray inspection.
- ◆ This tube can be used with maximum 50 kV constant potential circuit of cathode grounded.

General Data

Electrical:

Circuit:

High Voltage Generator	Constant Potential High-Voltage Generator
Grounding	Cathode and X-ray port grounded
Nominal X-ray Tube Voltage	50 kV
Nominal Focal Spot Value	0.15 × 0.1

Mechanical:

Dimensions:

Overall Length	96 mm
Maximum Diameter	φ 30.5 mm

Target:

Angle	16 degrees
Material	Tungsten
Inherent Filtration	Be 0.2 mm
X-ray Coverage (Angle)	Minimum 10 degrees conical field
Weight (Approx.)	200 g
Insulating Medium	Insulation Oil
Cooling Method	Oil immersed (60°C Max.) and convection oil cooling.
Tube Holding	Holding the mounting flange with 8-M3 screws

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Absolute Maximum and Minimum Ratings
(At any time, these values must not be exceeded.)

Maximum X-ray Tube Voltage	50 kV
Minimum X-ray Tube Voltage	10 kV
Maximum X-ray Tube Current	1 mA
Maximum Filament Current	1.8 A
Filament Frequency Limit	DC or AC (Sine Wave) 0 ~ 20 kHz
Maximum Input Energy (Continuously)	50 W

Environmental Limits

Operating Limits (in dielectric oil):

Oil Temperature 10 ~ 60 °C

Oil Pressure 70 ~ 140 kPa

Shipping and Storage Limits:

Temperature -40 ~ 70 °C

Humidity 10 ~ 90 %

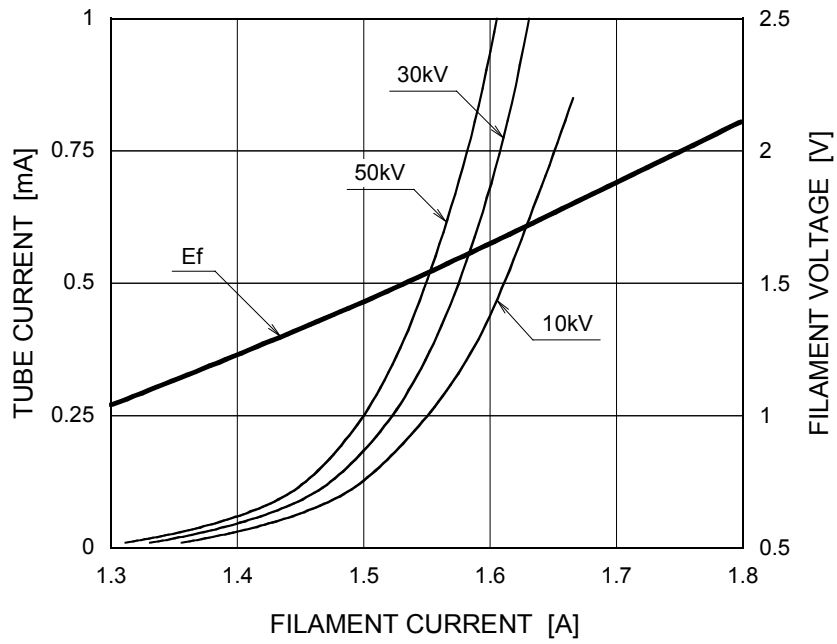
(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Emission & Filament Characteristics

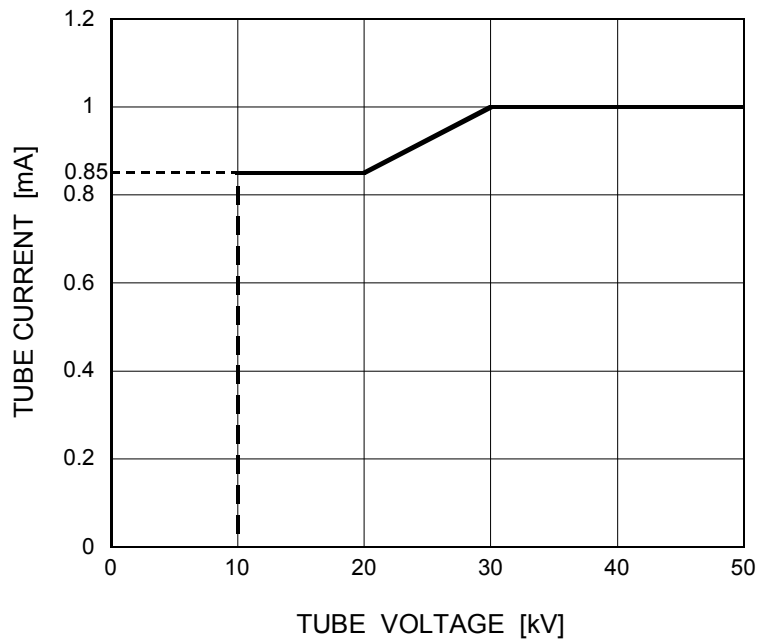
Constant Potential High-Voltage Generator

Nominal Focal Spot Value: 0.15×0.1



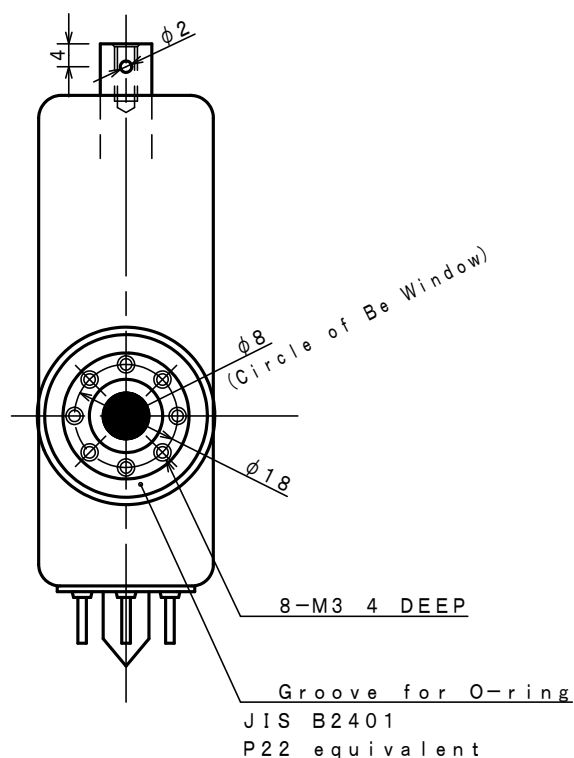
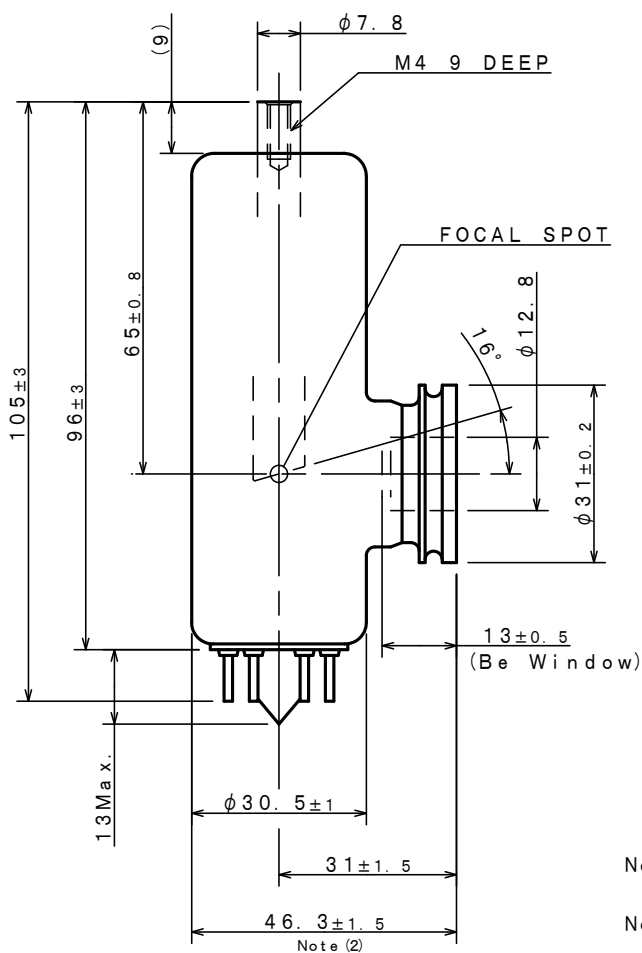
Note: This graph indicate typical characteristics.

Maximum Input (continuous)



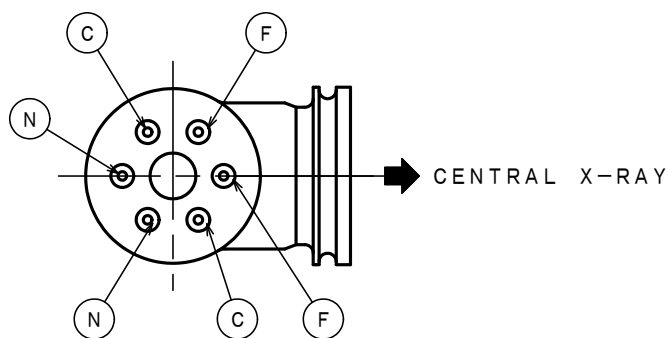
Dimensional Outline

Unit: mm



Note (1) X-ray radiation window (Be) is covered with protection coating.

Note (2) Dimensional tolerance means reference value from component dimension and assembly accuracy.



CATHODE TERMINLS

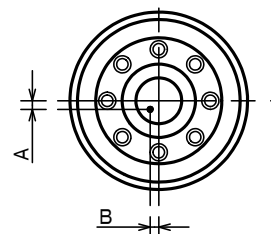
F: FILAMANT

C: CATHODE

Terminal "C" are connected mutually inside the tube.

N: NOT FOR USE

FOCAL SPOT POSITION



Central axis of outer shape of flange ($\phi 31 \pm 0.2$) is a standard.

$-1.6 \text{ mm} \leq A \leq 1.6 \text{ mm}$

$-1.6 \text{ mm} \leq B \leq 1.6 \text{ mm}$



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·The head office of Canon Electron Tubes & Devices Co., Ltd. has been certified to meet all the requirements of Environmental Management System ISO14001.
·Canon Electron Tubes & Devices Co., Ltd. has been certified to meet all the requirements of Quality Management Systems ISO9001 and ISO13485.
Product scope is referred to the following URL. <https://etd.canon/eng/company/quality.htm>.