

**INDUSTRIAL X-RAY TUBE
I-2113A-Mo**

X-ray Tube for Industrial Use

- ◆ The X-ray tube I-2113A-Mo, which has mini-focus 0.15, is designed for fluorescence analysis.
- ◆ 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 Grounded
Nominal X-ray Tube Voltage	50 kV
Nominal Focal Spot Value	0.15

Mechanical:

Dimensions:

Overall Length	96 mm
Maximum Diameter	φ 33 mm

Target:

Angle	10 degrees
Material	Molybdenum
Inherent Filtration	Be 0.05 mm
X-ray Coverage (Angle)	Minimum 10 degrees conical field
Weight (Approx.)	220 g
Insulating Medium	Insulation Oil
Cooling Method	Oil immersed (60°C Max.) and convection oil cooling.
Tube Holding	Holding the mounting flange with 4-M3 screws

★The information contained herein is presented only as a guide for the application of our products. No responsibility is assumed by Canon Electron Tubes & Devices Co., Ltd. (CETD) for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of CETD or others.
 ★The information contained herein may be changed without prior notice. It is therefore, advisable to contact to CETD before processing with the design of equipment incorporating this product.

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	1.5 mA
Maximum Filament Current	2.1 A
Filament Frequency Limit	DC or AC (Sine wave) 0 ~ 20 kHz
Maximum Input Energy (Continuously)	75 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

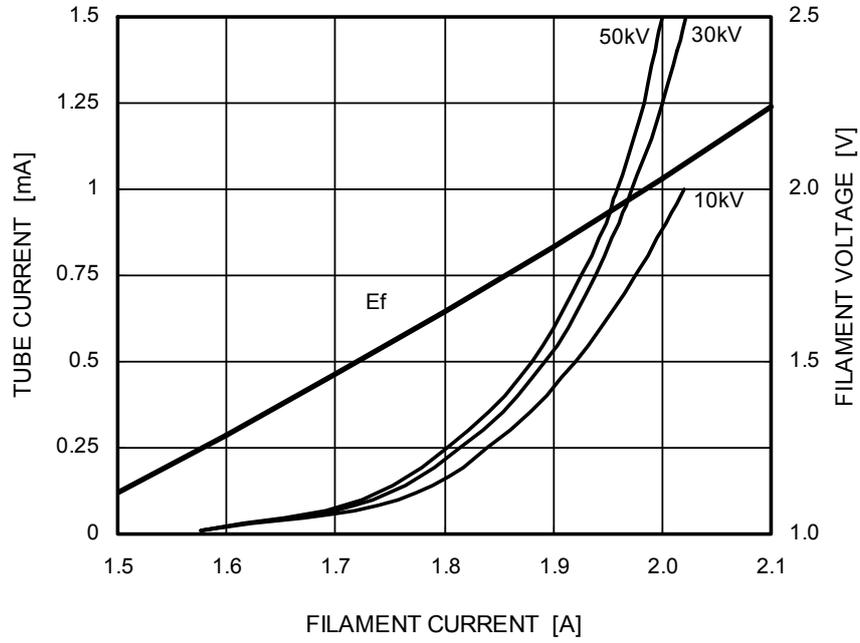
Humidity 10 ~ 90 %

(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

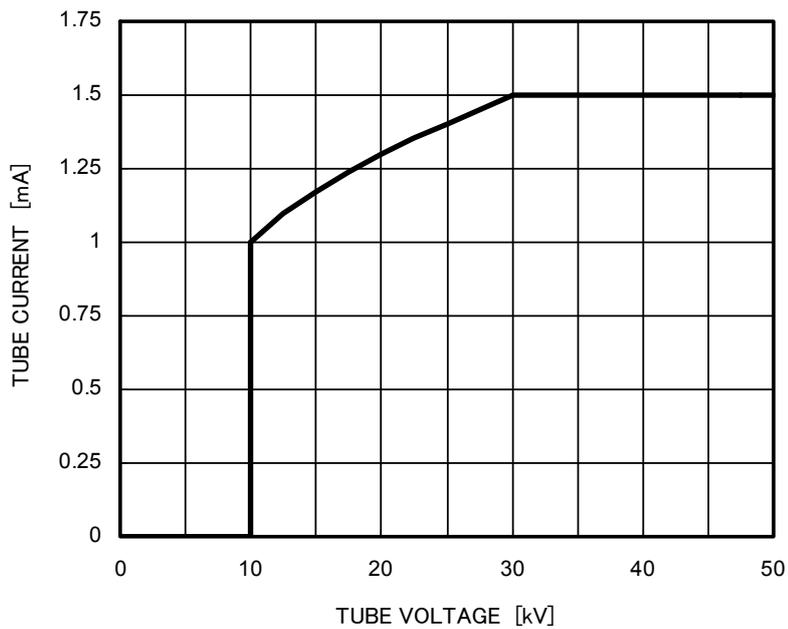
Emission & Filament Characteristics

Constant Potential High-Voltage Generator



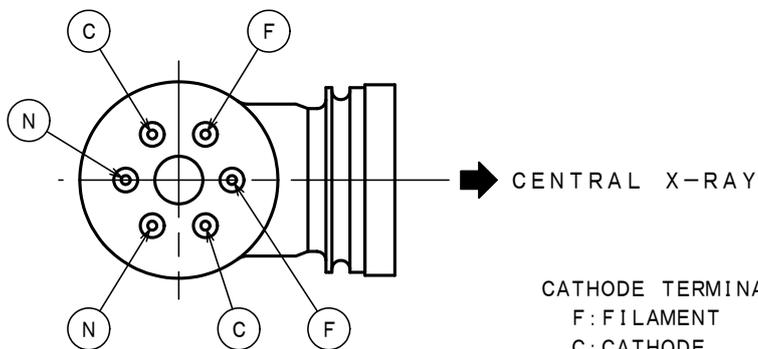
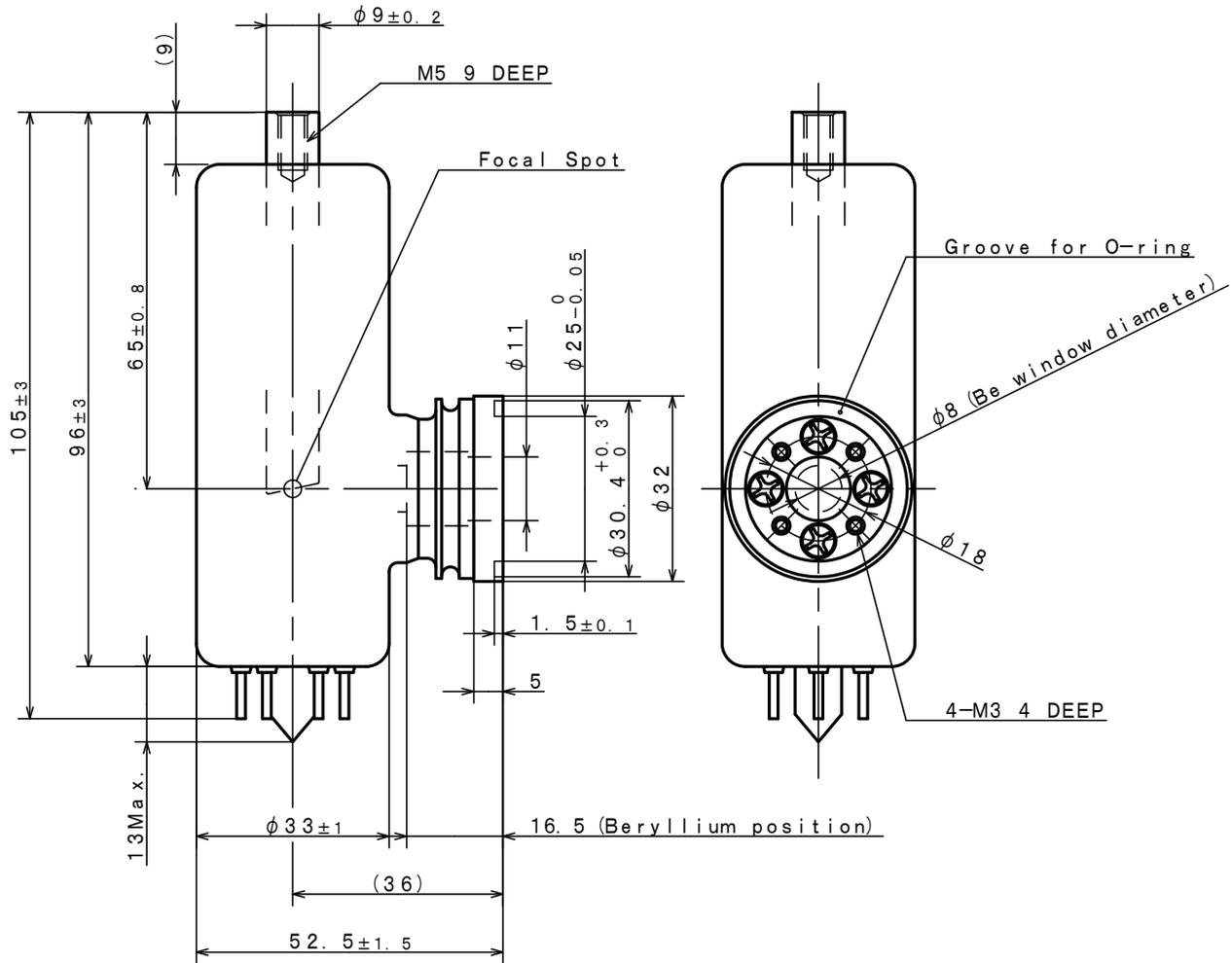
Note: This graph indicate typical characteristics.

Maximum Input (continuous)



Dimensional Outline

Unit: mm



CATHODE TERMINALS

F: FILAMENT

C: CATHODE

Terminal "C" are connected mutually inside the tube.

N: DO NOT USE



CANON ELECTRON TUBES & DEVICES CO., LTD.

Marketing Engineering Group, Sales Department
1385, Shimoishigami, Otawara-shi, Tochigi 324-8550, Japan
Tel: +81-287-26-6666 Fax: +81-287-26-6060
<https://etd.canon>

·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>.