

**INDUSTRIAL X-RAY TUBE
I-2112B-Rh**

Toshiba X-ray Tube for Industrial Use

- ◆ The Toshiba X-ray tube I-2112B-Rh, which has focus 0.8, is designed for X-ray fluorescence analysis.
- ◆ This tube can be used with maximum tube voltage 50 kV.

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	0.8

Mechanical:

Dimensions:

Overall Length	See dimensional Outline
Maximum Diameter	See dimensional Outline

Target:

Angle	33 degrees
Material	Rh
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 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	5 kV
Maximum X-ray Tube Current	1 mA
Maximum Filament Current	2.1 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

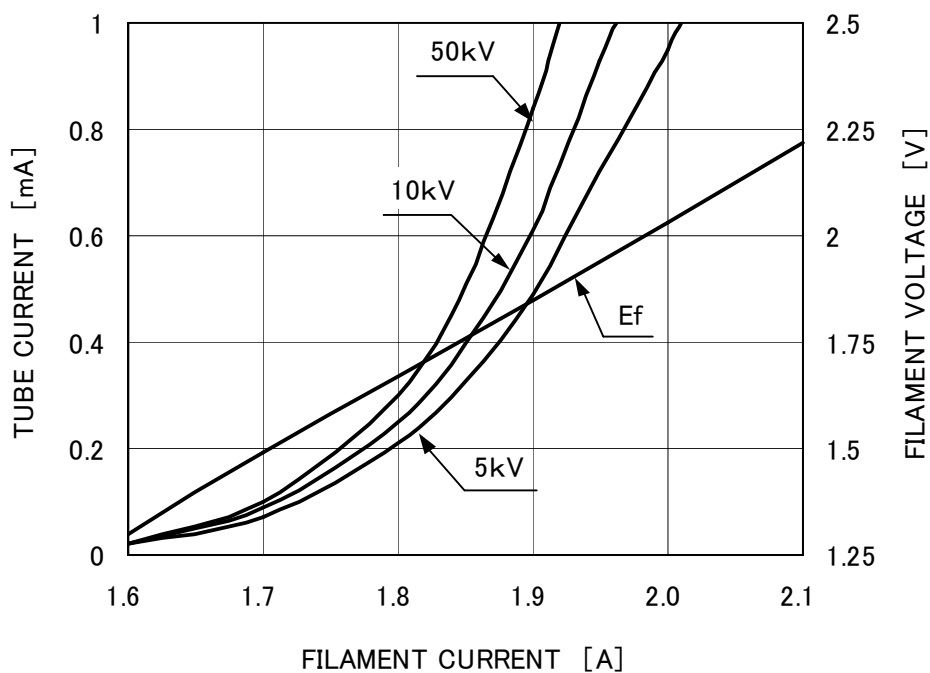
Shipping and Storage Limits:

Temperature	-40 ~ 70 °C
Humidity	10 ~ 90 % (No condensation)
Atmospheric Pressure	50 ~ 106 kPa

Emission & Filament Characteristics

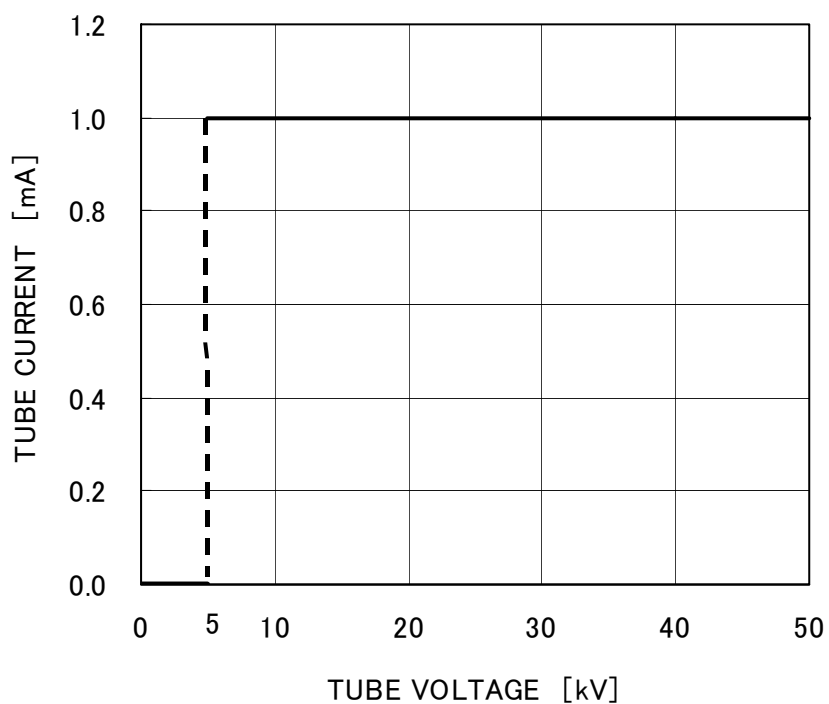
Constant Potential High-Voltage Generator

Nominal Focal Spot Value: 0.8



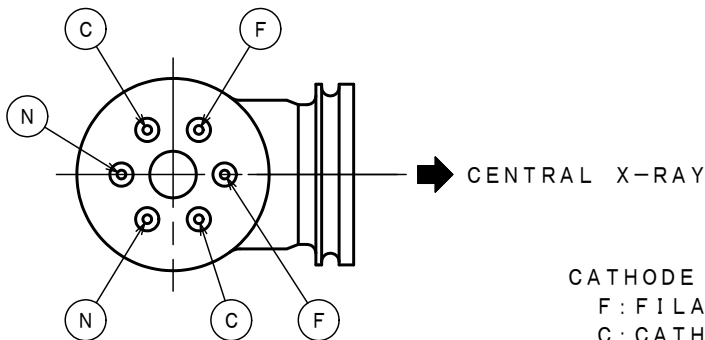
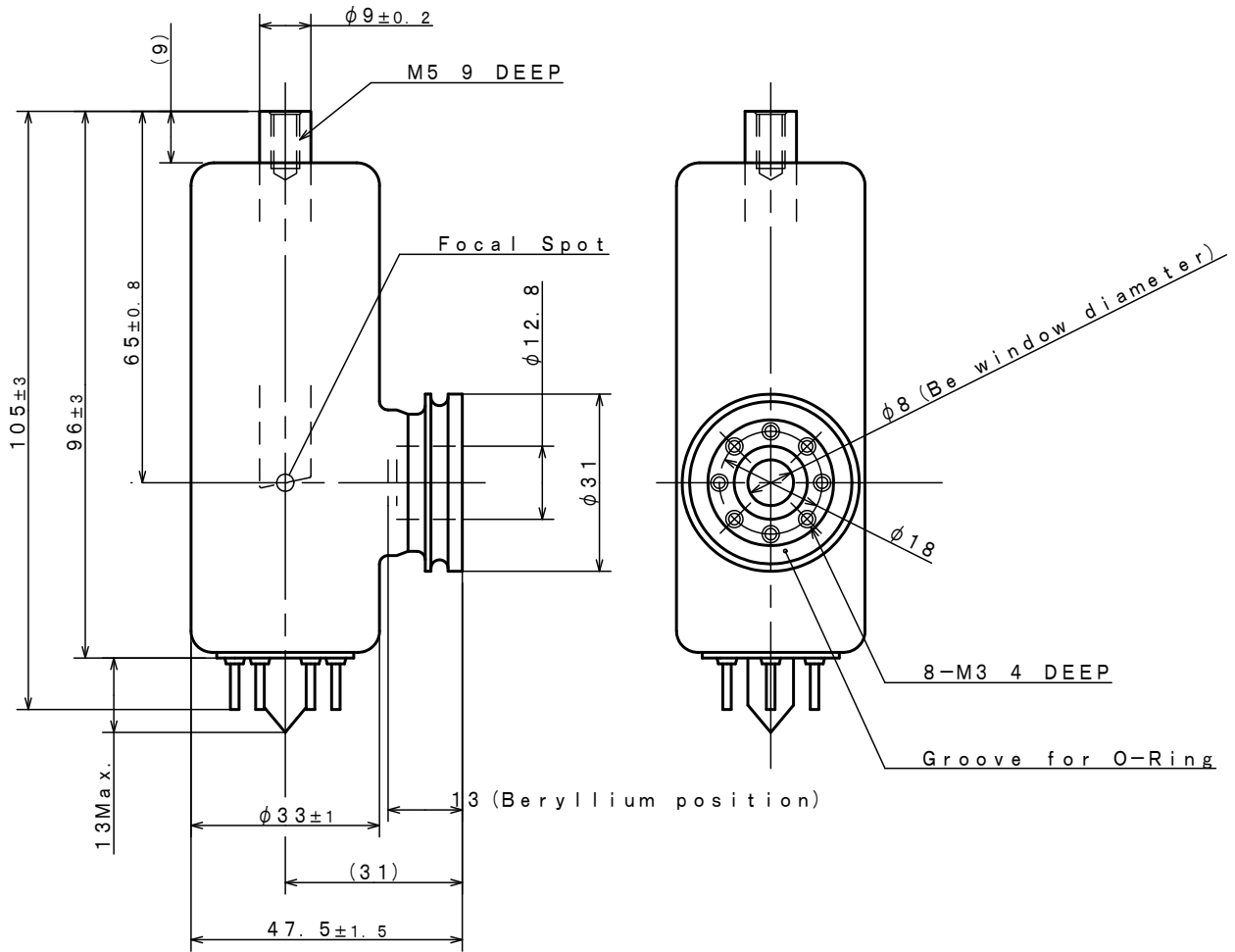
Note: This graph indicate typical characteristics.

Maximum Input (continuous)



Dimensional Outline

Unit: mm



CATHODE TERMINALS

F: FILAMENT

C: CATHODE

Terminal "C" are connected mutually inside the tube.

N: NOT FOR USE

OVERSEAS SUBSIDIARIES AND AFFILIATES

EU REPRESENTATIVE

·TOSHIBA ELECTRONICS EUROPE GMBH

HANSAALLEE 181 40549 DÜSSELDORF, GERMANY

PHONE +49 (211) 5296-107 FAX +49 (211) 5296-402

For Sales & Technical Services, please contact the following representative:

·TOSHIBA ELECTRONICS EUROPE GMBH

HANSAALLEE 181 40549 DÜSSELDORF, GERMANY

PHONE +49 (211) 5296-107 FAX +49 (211) 5296-402

·TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.

2150 EAST LAKE COOK ROAD, SUITE 310

BUFFALO GROVE, ILLINOIS 60089 USA

PHONE +1 (847) 484-2400 FAX +1 (847) 541-7287

·TOSHIBA ELECTRON DEVICES & MATERIALS (SHANGHAI) CO., LTD. (TEMS)

RM1606, SH-PLAZA,

No.336, XIZANG ROAD (MIDDLE), SHANGHAI, 200001, CHINA

PHONE +86 (21) 6361-0077 FAX +86 (21) 6351-5760

TOSHIBA ELECTRON TUBES & DEVICES CO., LTD.

(Product Development Engineering Department)

1385 SHIMOISHIGAMI, OTAWARA-SHI, TOCHIGI-KEN, 324-8550, JAPAN

PHONE: +81-287-26-6666 FAX: +81-287-26-6060

<http://www.toshiba-tetd.co.jp/>

·Toshiba Electron Tubes & Devices Co., Ltd. meets the Environmental Management System Standard, ISO14001.

·Toshiba Electron Tubes & Devices Co., Ltd. meets internationally recognized Standards for Quality Management System ISO9001, ISO13485.