

X-RAY TUBE

**D-0813
D-0813S
D-0813SB**

Stationary Anode X-ray Tube

- ◆ Especially designed for dental X-ray unit.
- ◆ Provided with an insulation cylinder (D-0813S) and lead cylinder (D-0813SB).
- ◆ These tubes have focus 0.8, and are available for maximum tube voltage 80 kV.
- ◆ Installed in the same enclosure with the high voltage transformer.



General Data

Electrical:

Circuit:

High Voltage Generator	Constant Potential High-voltage Generator
Grounding	Center-grounded
Nominal X-ray Tube Voltage	80 kV
Nominal Focal Spot Value	0.8
Nominal Anode Input Power (at 1.0s)	1350 W
	(See Rating Charts)
Exposure Duty Cycle	1:30 or More
	(Exposure Time : Interval Time)

Mechanical:

Dimensions:

Overall Length	See Dimensional Outline
Maximum Diameter	See Dimensional Outline
Target:	
Anode Angle	16 degrees
Material	Tungsten
Inherent Filtration	At least 1.0 mm Al at 70 kV
X-ray Coverage	φ 107 mm at SID 200 mm

★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.

Weight (Approx.):

D-0813	100 g
D-0813S	140 g
D-0813SB	260 g

Cooling Method Oil immersed (60°C Max.) and convection oil cooling.

Tube Holding:

D-0813 Holding the glass envelope of the anode end and cathode end,
or the screw of the anode shank.

D-0813S Holding the insulation cylinder.

D-0813SB Holding the lead cylinder.

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

Maximum X-ray Tube Voltage 80 kV

Minimum X-ray Tube Voltage 40 kV

Nominal X-ray Tube Current 33 mA

(See Rating Charts)

Maximum Filament Current 3.0 A

Filament Voltage:

At Maximum Filament Current (3.0 A) 3.0 ~ 3.7 V

Filament Frequency Limits DC or AC (Sine Wave) 0 ~ 20 kHz

Thermal Characteristics:

Anode Heat Content 7 kJ

Maximum Anode Heat Dissipation 210 W

Maximum Exposure Time 5 s

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 %

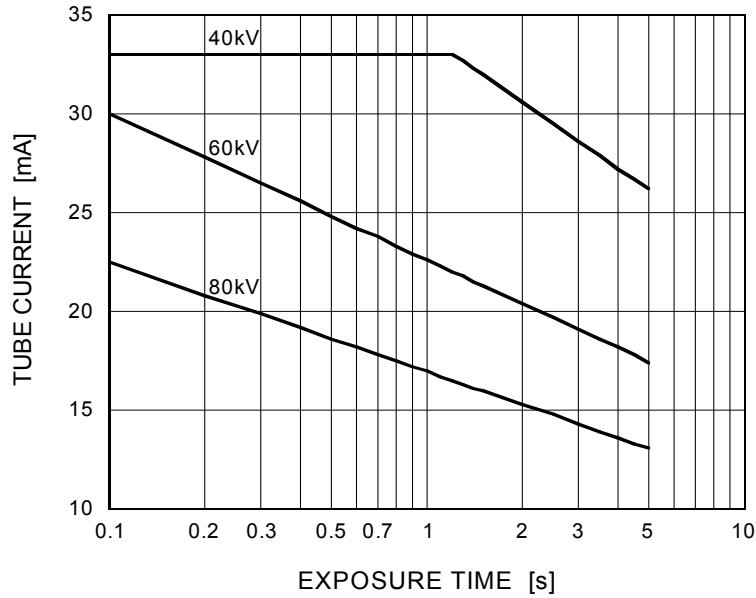
(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Maximum Rating Charts (Absolute maximum rating charts)

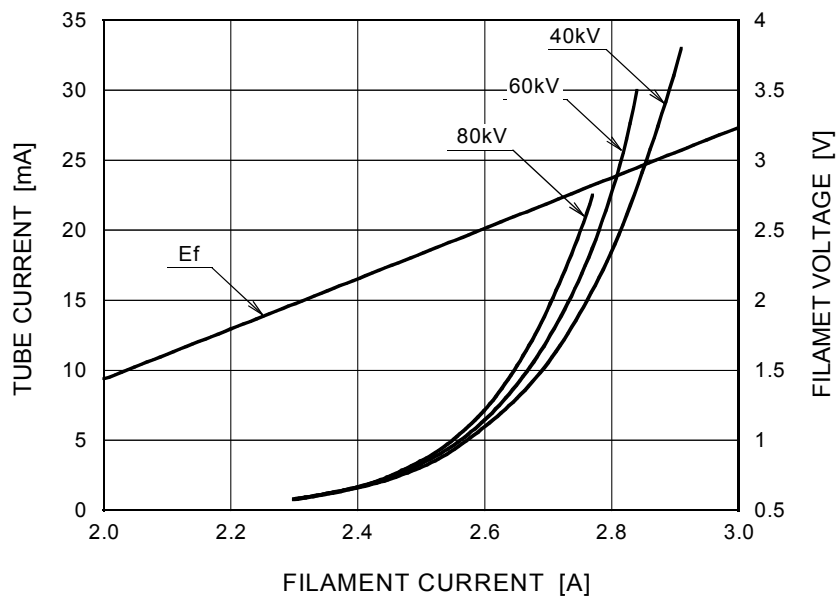
Constant Potential High-voltage Generator

Nominal Focal Spot Value: 0.8



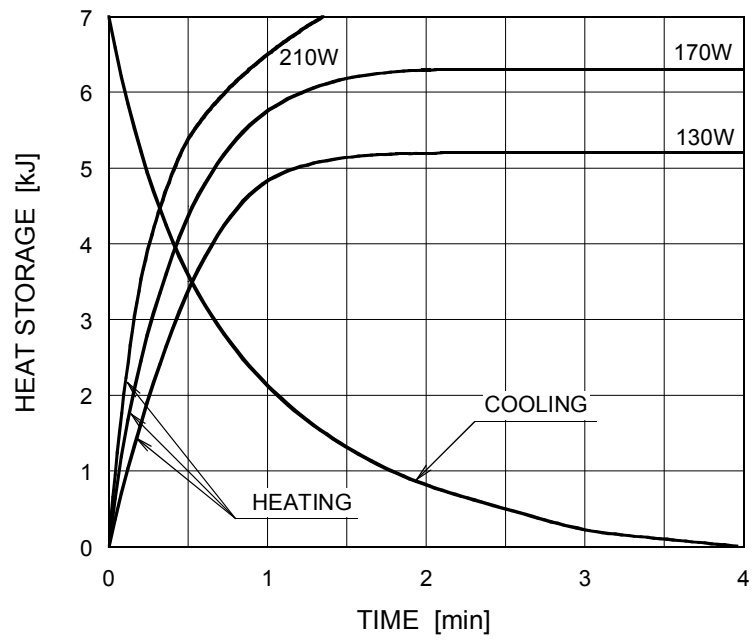
Emission & Filament Characteristics

Constant Potential High-voltage Generator



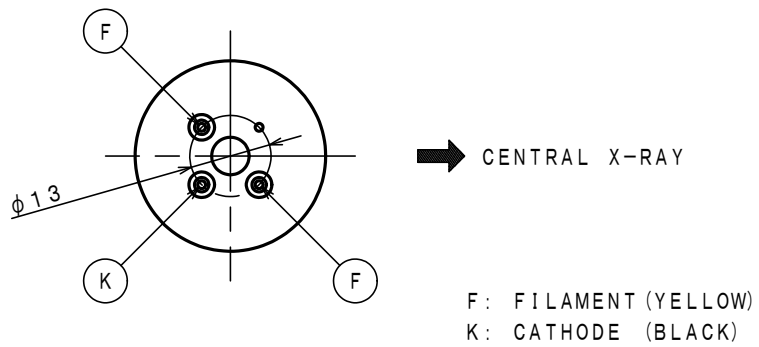
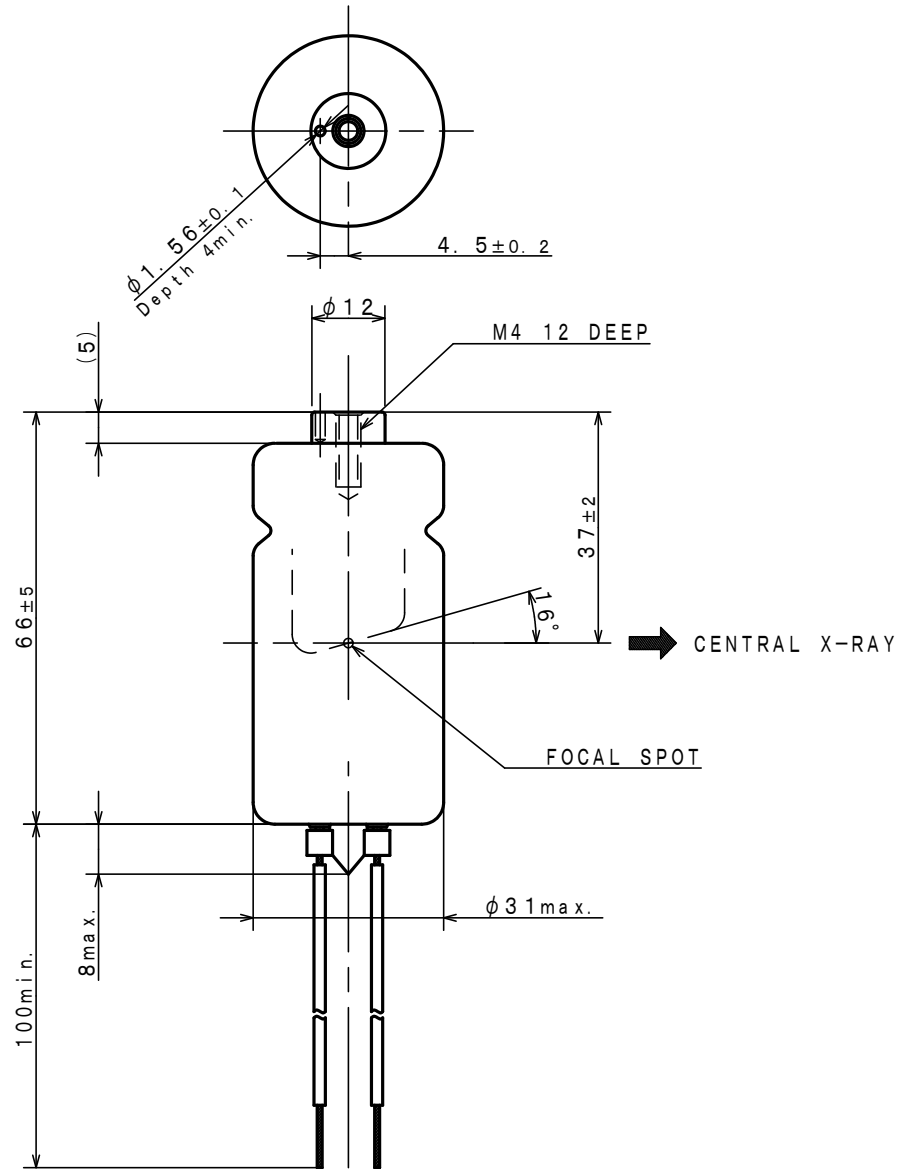
Note: This graph indicates typical characteristics.

Anode Heating / Cooling Curve



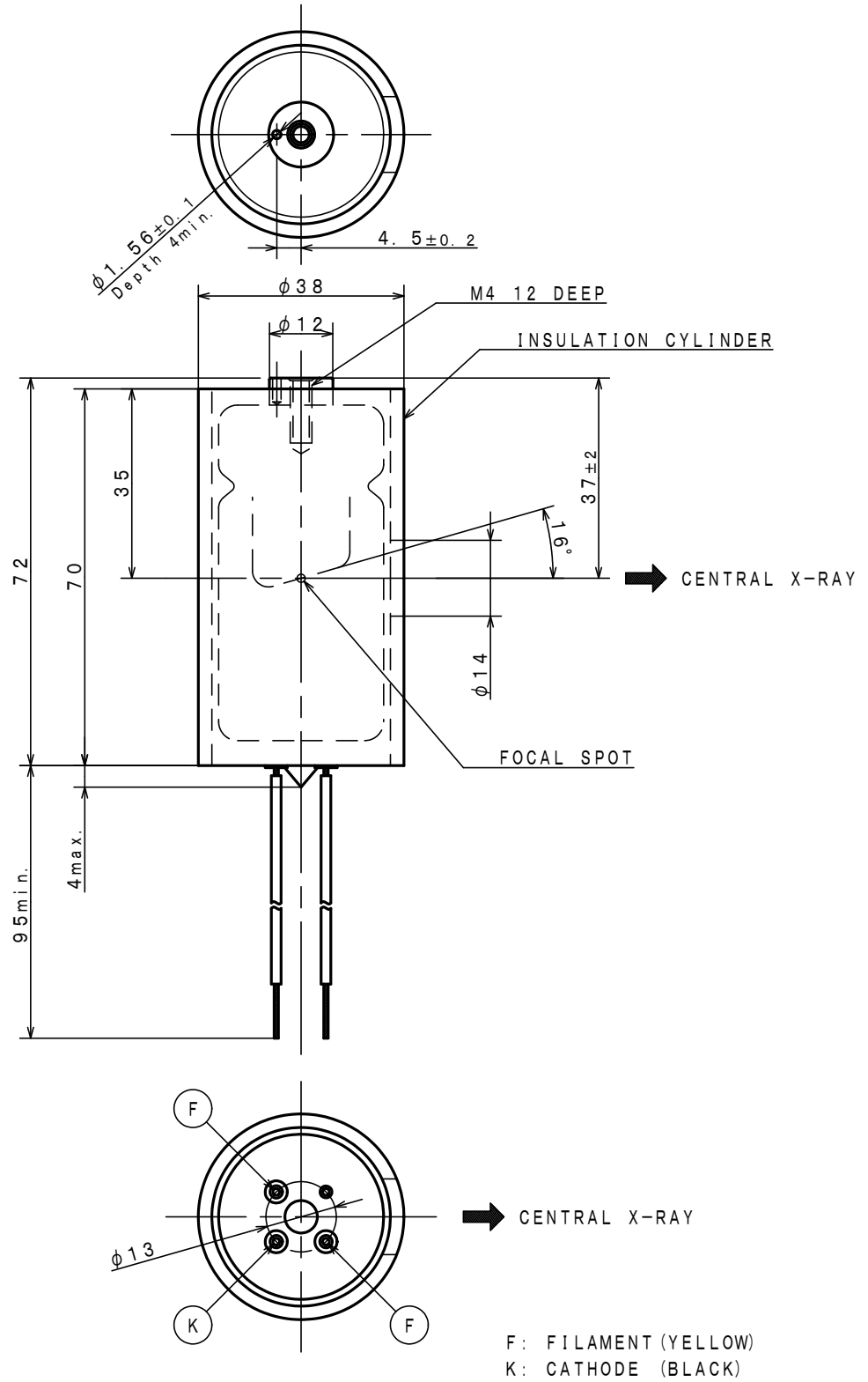
Dimensional Outline of D-0813

Unit: mm



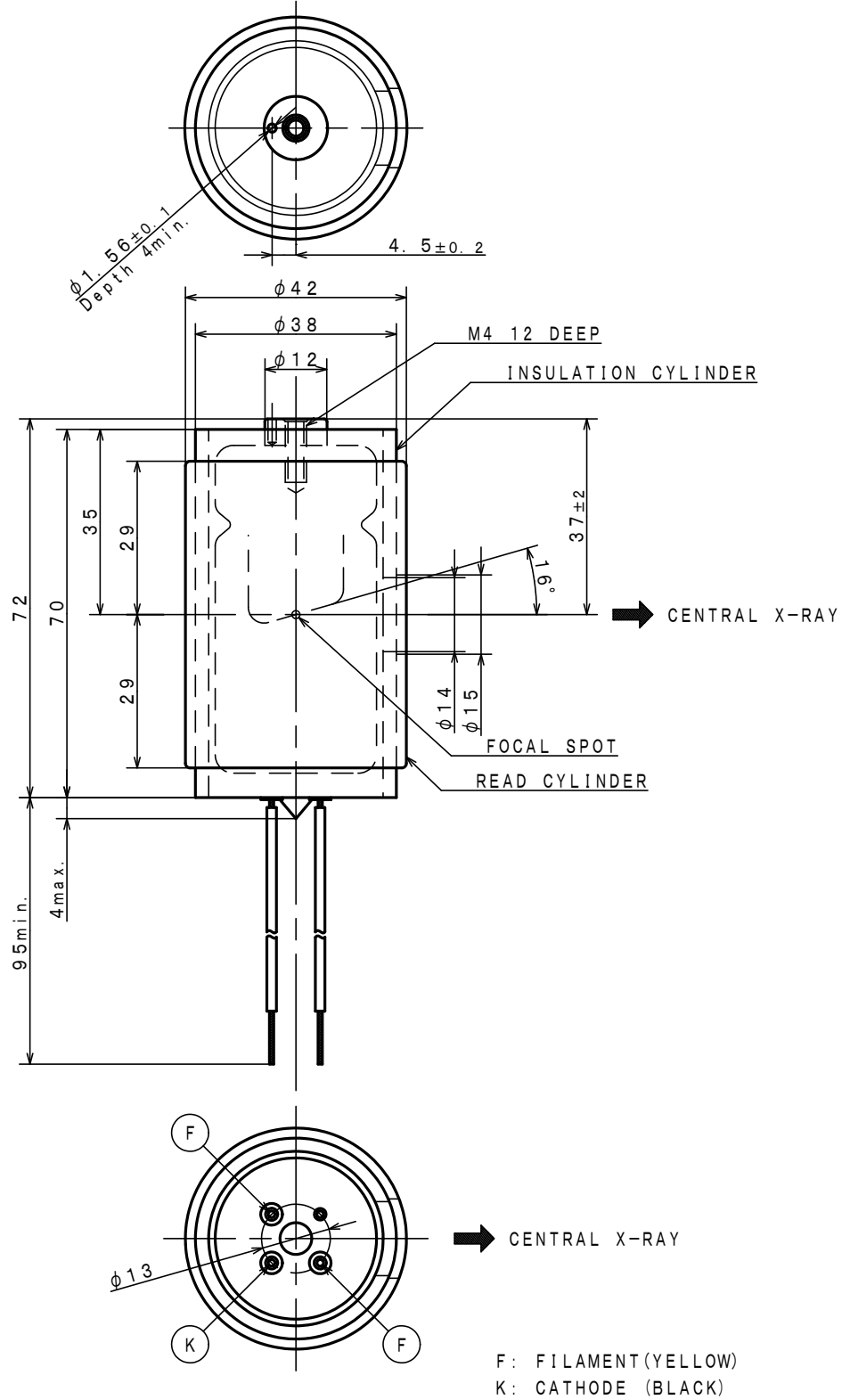
Dimensional Outline of D-0813S

Unit: mm



Dimensional Outline of D-0813SB

Unit: mm





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>.