

**TOSHIBA 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

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★The information contained herein may be changed without prior notice. It is therefore advisable to contact TETD before proceeding 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 %

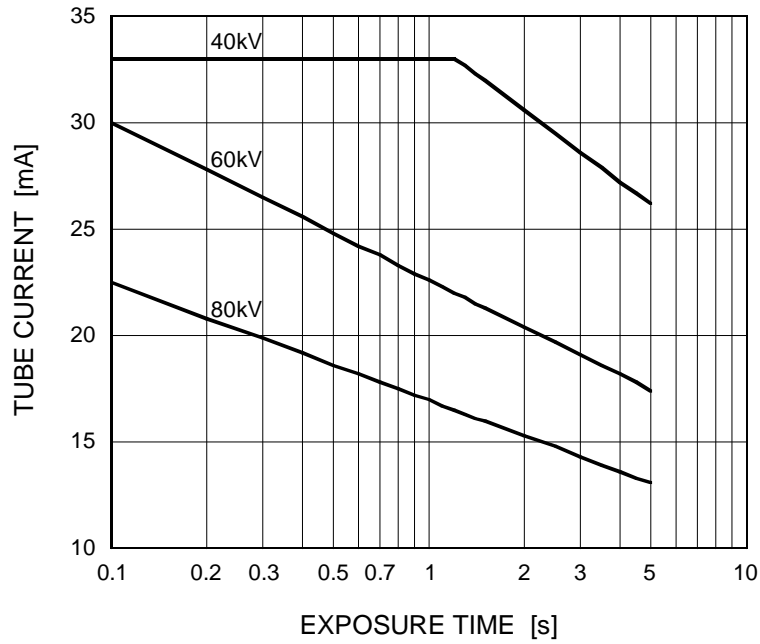
(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Maximum Rating Charts (Absolute maximum rating charts)

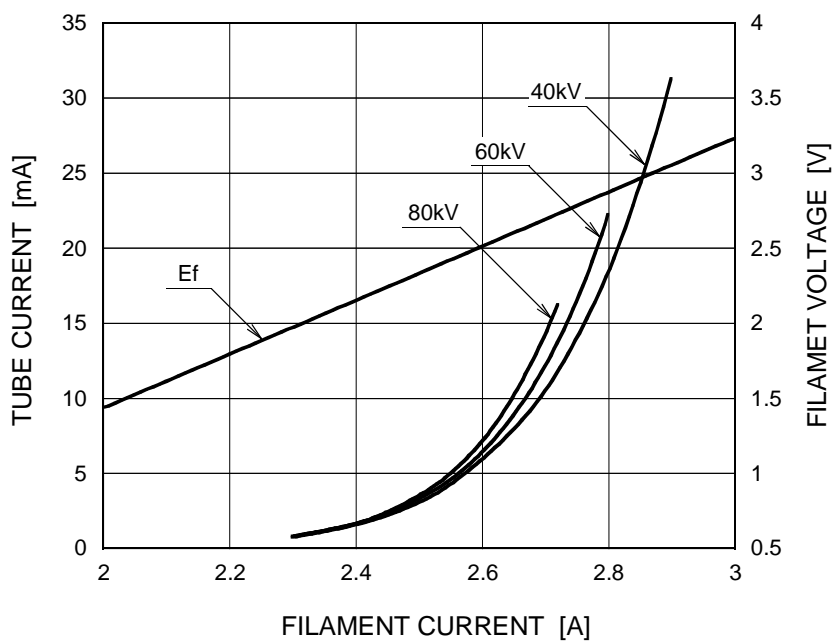
Constant Potential High-Voltage Generator

Nominal Focal Spot Value: 0.8



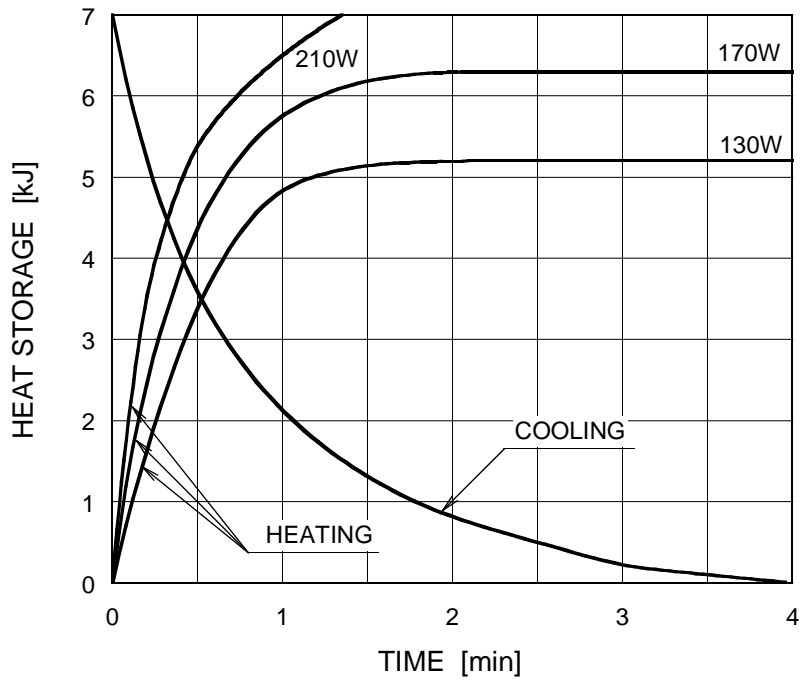
Emission & Filament Characteristics

Constant Potential High-Voltage Generator



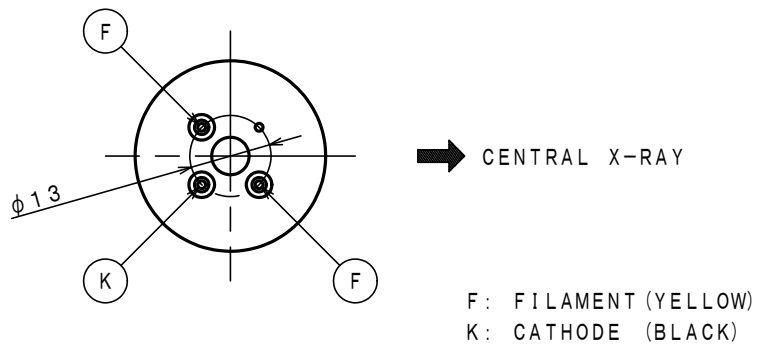
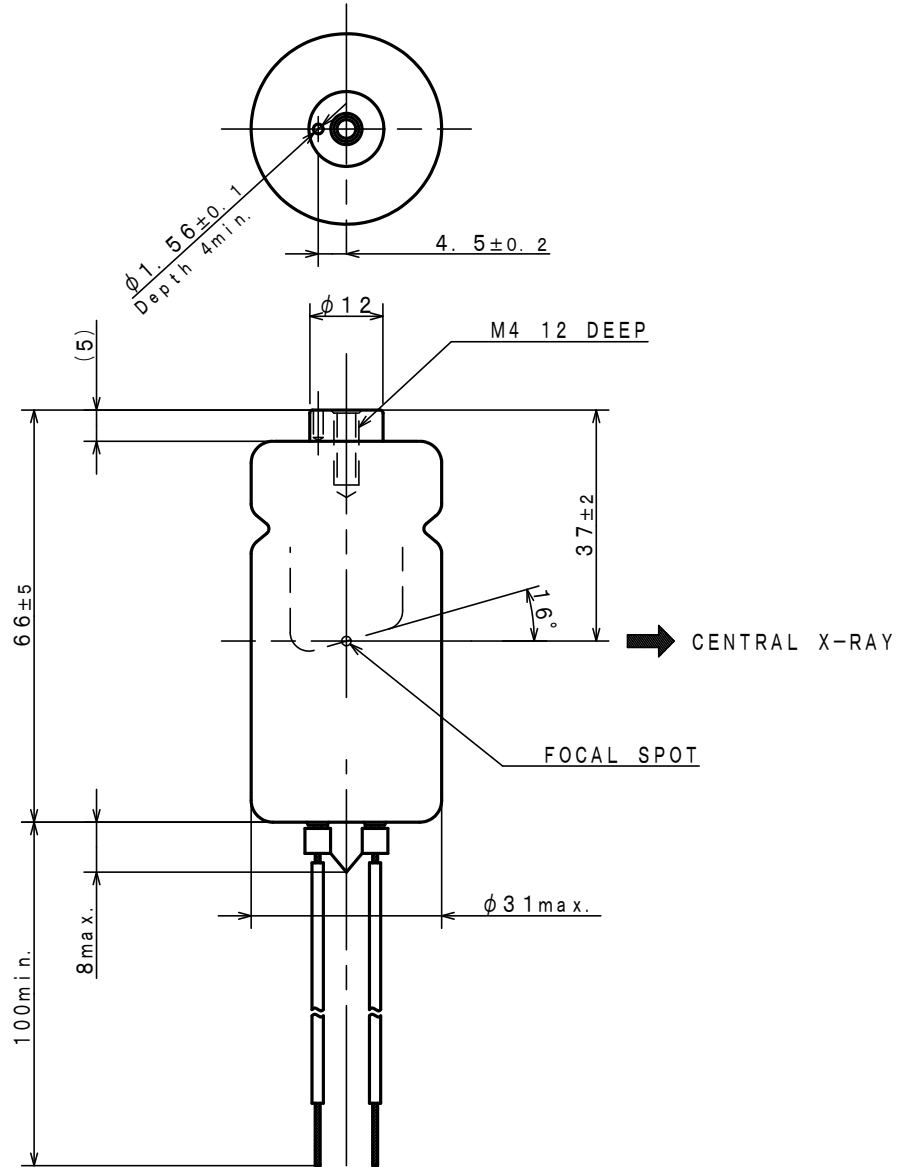
Note: This graph indicates typical characteristics.

Anode Heating / Cooling Curve



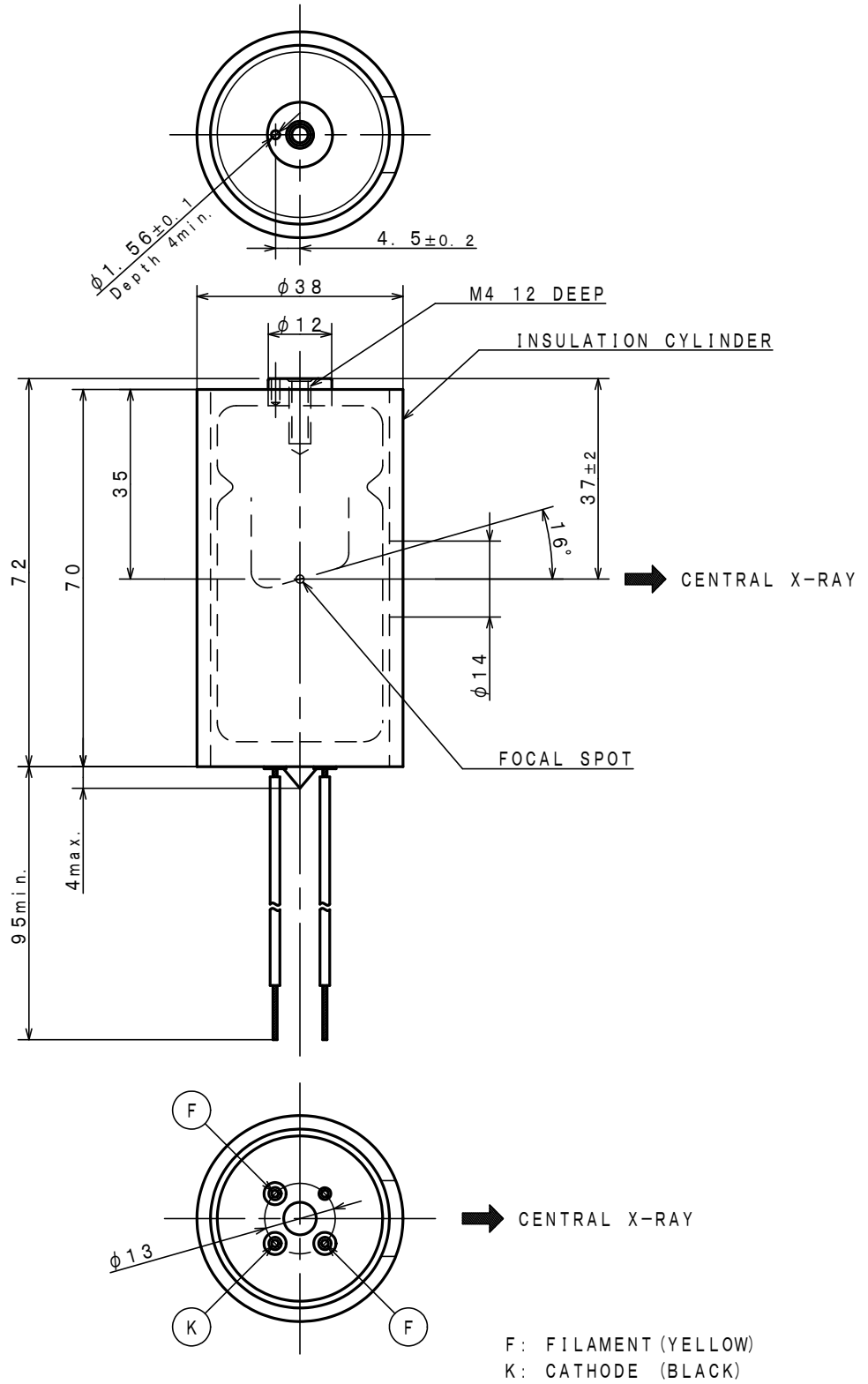
Dimensional Outline of D-0813

Unit: mm



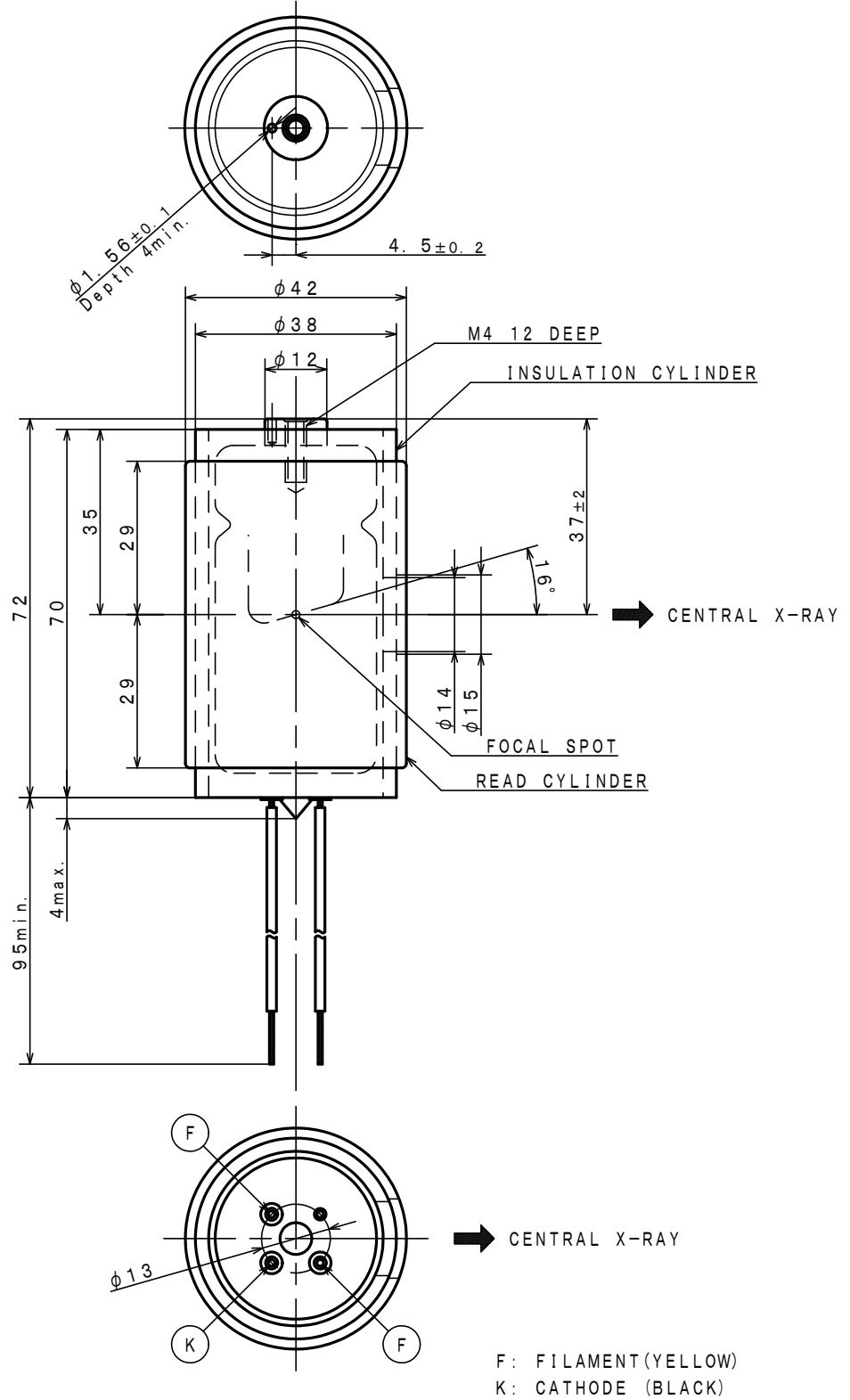
Dimensional Outline of D-0813S

Unit: mm



Dimensional Outline of D-0813SB

Unit: mm



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