

**TOSHIBA X-RAY TUBE
 D-0711 / D-0711S**

Stationary Anode X-ray Tube

- ◆ Especially designed for dental X-ray unit.
- ◆ Provided with an insulation cylinder (D-0711S).
- ◆ These tubes have focus 0.7, and are available for maximum tube voltage 70 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	70 kV
Nominal Focal Spot Value	0.7
Nominal Anode Input Power (at 1.0s)	940 W
Exposure Duty Cycle	1:60 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-0711 100 g
 D-0711S 140 g

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

Tube Holding:

D-0711 Holding the glass envelope of the anode end and cathode end,
 or the screw of the anode shank.
 D-0711S Holding the insulation cylinder.

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

Maximum X-ray Tube Voltage 70 kV
 Between Anode (or Cathode) and Ground 35 kV
 Minimum X-ray Tube Voltage 50 kV
 Maximum X-ray Tube Current 19.9 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

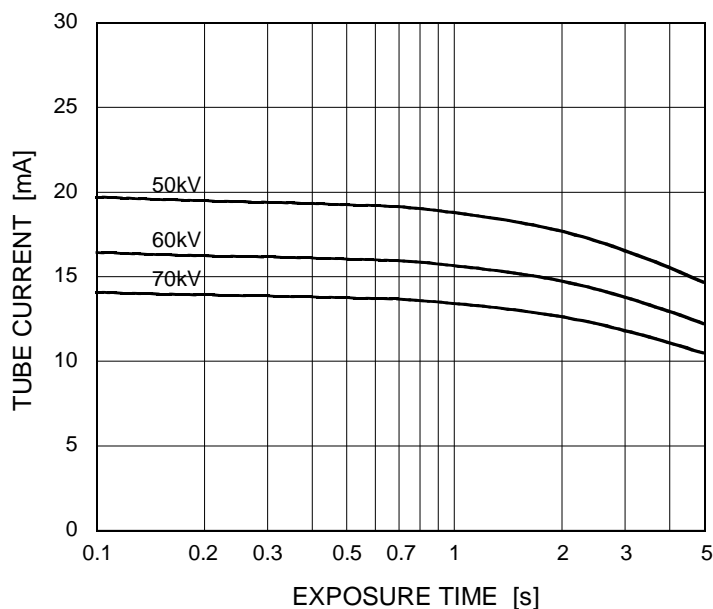
Maximum Anode Heat Dissipation 210 W

Maximum Radiographic Exposure Time 5 s

Maximum Rating Charts (Absolute maximum rating charts)

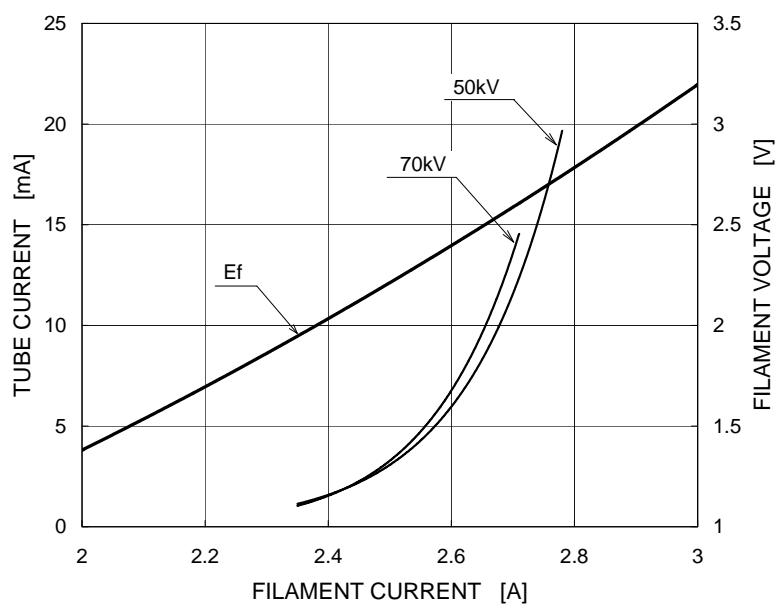
Constant Potential High-Voltage Generator

Nominal Focal Spot Value: 0.7



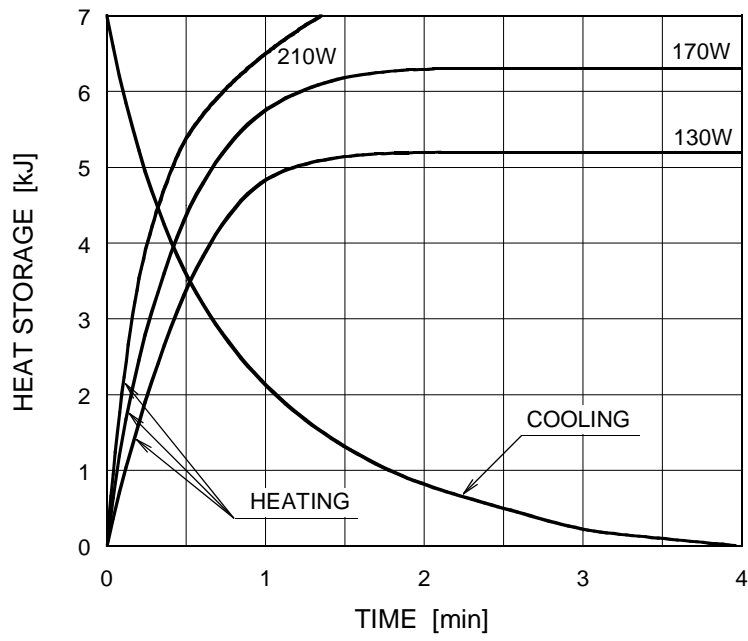
Emission & Filament Characteristics

Constant Potential High-Voltage Generator



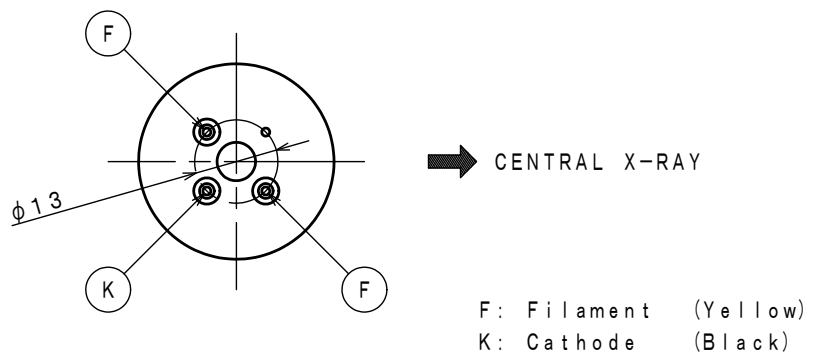
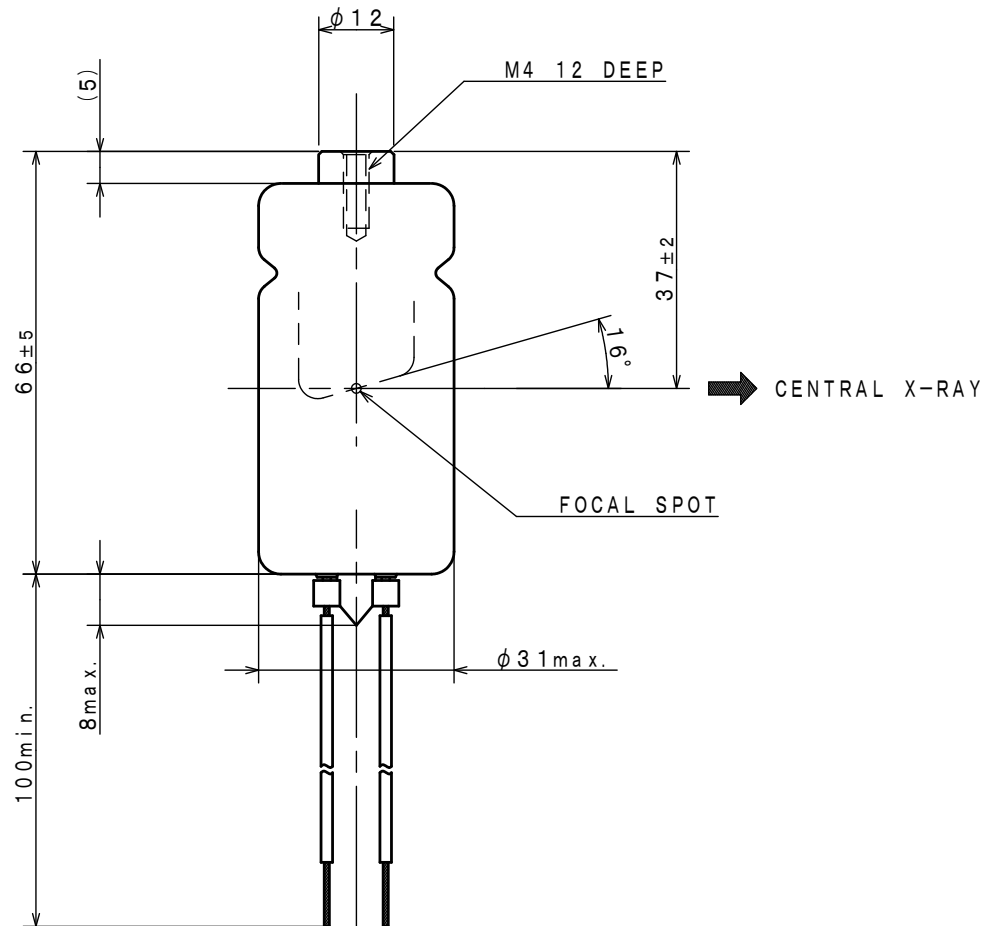
Note: This graph indicates typical characteristics.

Anode Heating / Cooling Curve



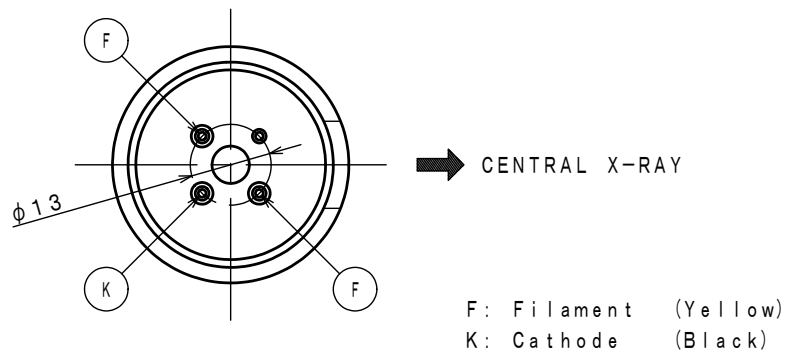
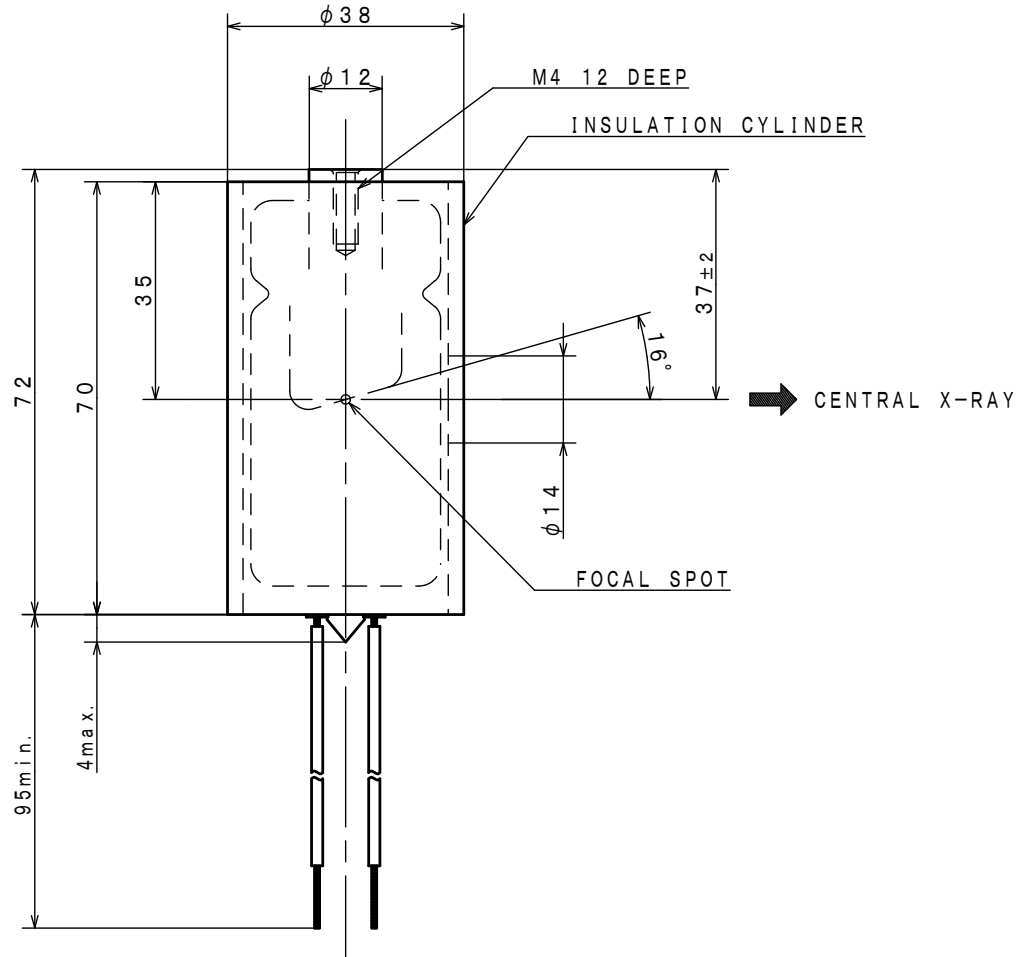
Dimensional Outline of D-0711

Unit: mm



Dimensional Outline of D-0711S

Unit: mm



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·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.