

TOSHIBA X-RAY TUBE
D-045 C €⁰¹⁹⁷

Stationary Anode X-ray Tube

- ◆ Especially designed for dental radiography unit.
- ◆ This tube has focus 0.4, and is 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 (IEC60613:2010).....	70 kV
Nominal Focal Spot Value (IEC60336:2005) ^{Note)}	0.4
Nominal Anode Input Power (at 1.0s) (See rating Charts)	585 W
Nominal Radiographic Anode Input Power (IEC60613:2010)	600 W
Exposure Duty Cycle	1:30 or more
	(Exposure time: interval time)

Note) Test Condition: 70kV 3.2mA

Mechanical:

Dimensions:

Overall Length	See dimensional outline
Maximum Diameter	See dimensional outline
Target:	
Anode Angle	12.5 degrees
Material	Tungsten
Inherent Filtration	At least 1.0 mm Al
X-ray Coverage	φ 70 mm at SID 200 mm
Weight	Approx. 100 g
Cooling Method	Oil immersed (60°C Max.) and convection oil cooling
Tube Holding	Holding the glass envelope of the anode end and cathode end or the screw of the anode shank.

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Absolute Maximum and Minimum Ratings

(At any time, these values must not be exceeded.)

Maximum X-ray Tube Voltage (IEC60613:2010)	70 kV
Between Anode (or Cathode) and Ground	35 kV
Minimum X-ray Tube Voltage	50 kV
Maximum X-ray Tube Current (IEC60613:2010) (See rating Charts)	12 mA
Filament Characteristics:	
Maximum Filament Current	3.0 A
Filament Frequency Limits	DC or AC (Sine Wave) 0 ~ 20 kHz
Thermal Characteristics:	
Anode Heat Content	4300 J
Maximum Anode Heat Dissipation	100 W
Maximum Radiographic Exposure Time	3.2 s

Environmental Limits

Operating Limits (in dielectric oil):

Oil Temperature	10 ~ 60 °C
Oil Pressure	70 ~ 140 kPa

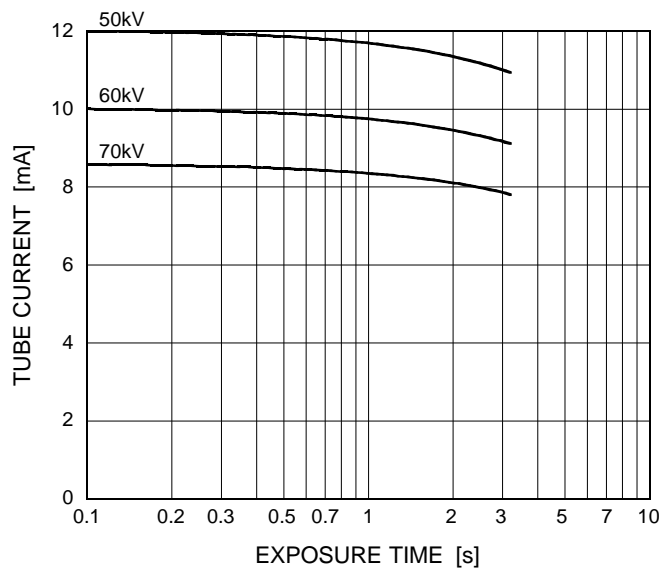
Shipping and Storage Limits:

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: 0.4

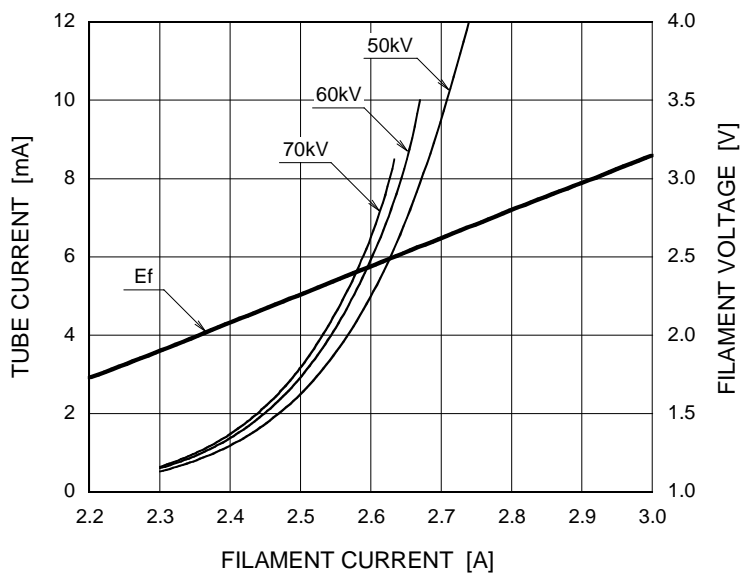


Refer to IEC60613:2010

Emission & Filament Characteristics

Constant Potential High-Voltage Generator

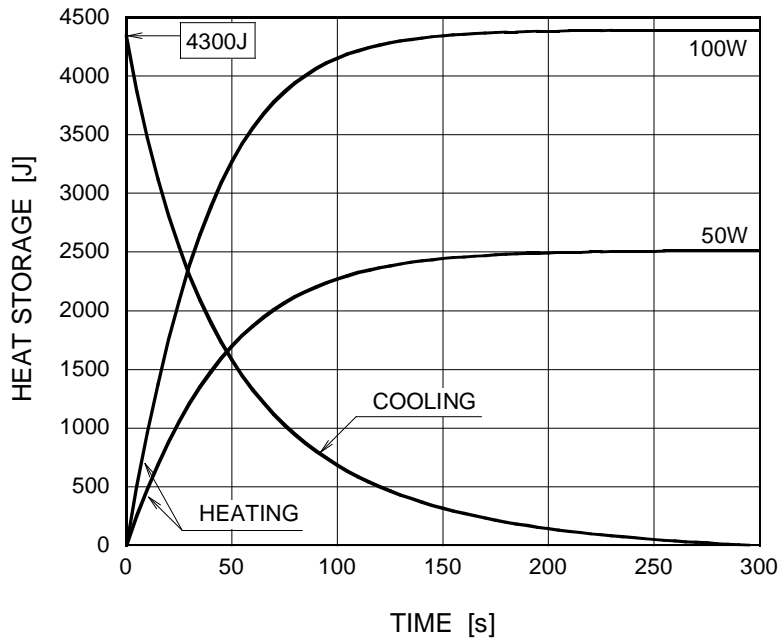
Nominal Focal Spot Value: 0.4



Note1) This graph indicates typical characteristics.

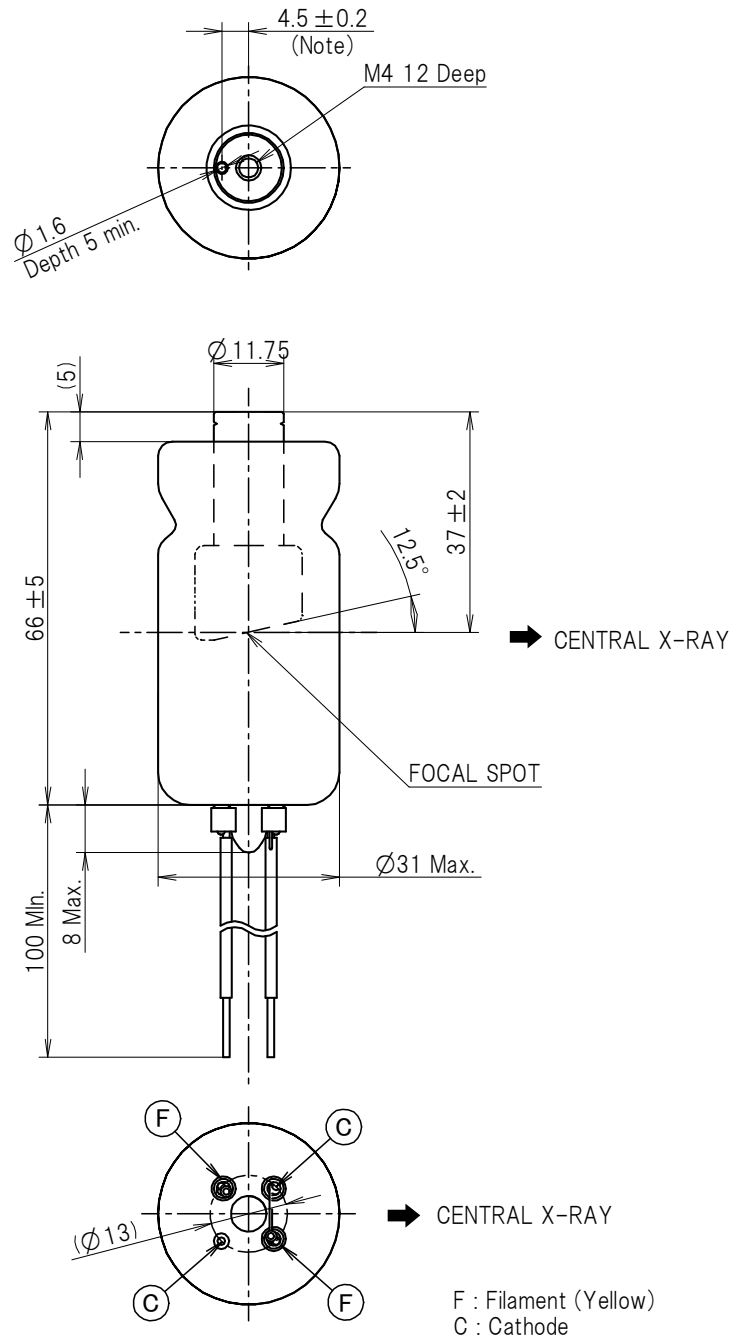
Note2) Refer to IEC60613:2010

Anode Heating / Cooling Curve



Dimensional Outline

Unit: mm



Note : Dimensions from an anode shank to a mounting hole.

OVERSEAS SUBSIDIARIES AND AFFILIATES



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