

**X-RAY TUBE
D-205B
D-205BS**

Stationary Anode X-ray Tube

- ◆ Especially designed for dental X-ray unit and portable X-ray unit.
- ◆ These tubes have focus 2.0, and are available for a maximum tube voltage 125 kV or 100kV.
- ◆ Installed in the same enclosure with the high voltage transformer.

General Data

Electrical:

Circuit:

High Voltage Generator	One-Peak High-Voltage Generator (Self-rectified) Two-Peak High-Voltage Generator Constant Potential High-Voltage Generator
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Grounding	Center-grounded
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Nominal X-ray Tube Voltage:

One-Peak High-Voltage Generator	125 kV
Two-Peak High-Voltage Generator	125 kV
Constant Potential High-Voltage Generator	100 kV

Nominal Focal Spot Value	2.0
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Nominal Anode Input Power (at 1.0s): (See rating charts)

One-Peak High-Voltage Generator	2000 W
Two-Peak High-Voltage Generator	3000 W
Constant Potential High-Voltage Generator	3300 W

Nominal Radiographic Anode Input Power:

One-Peak High-Voltage Generator	2200 W
Two-Peak High-Voltage Generator	3800 W
Constant Potential High-Voltage Generator	3600 W

Exposure Duty Cycle	1:60 or more (Exposure time: interval time)
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Mechanical:

Dimensions:

- Overall Length See dimensional outline
- Maximum Diameter See dimensional outline

Target:

- Anode Angle 20 degrees
- Material Tungsten

Inherent Filtration At least 0.8 mm Al at 75 kV

X-ray Coverage 354 × 354 mm at SID 490 mm

Weight (approx.):

- D-205B Approx. 430 g
- D-205BS Approx. 580 g

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

Tube Holding:

- D-205B Holding the glass envelope of the anode end and cathode end or the screw of the anode shank.
- D-205BS Holding the insulation cylinder

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

Maximum X-ray Tube Voltage:	
One-Peak High-Voltage Generator	125 kV
Two-Peak High-Voltage Generator	125 kV
Constant Potential High-Voltage Generator	100 kV
Between Anode (or Cathode) and Ground:	
One-Peak High-Voltage Generator	63 kV
Two-Peak High-Voltage Generator	63 kV
Constant Potential High-Voltage Generator	50 kV
Minimum X-ray Tube Voltage	50 kV
Maximum X-ray Tube Current: (See rating charts)	
One-Peak High-Voltage Generator	40 mA
Two-Peak High-Voltage Generator	80 mA
Constant Potential High-Voltage Generator	70 mA
Maximum Filament Current	5.0 A
Filament Voltage:	
At Maximum Filament Current	5.0 ~ 6.7 V
Filament Frequency Limits	DC or AC (Sine Wave) 0 ~ 20 kHz
Thermal Characteristics:	
Anode Heat Content	28 kJ
Maximum Anode Heat Dissipation	265 W
Maximum Radiographic Exposure Time	10 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 %

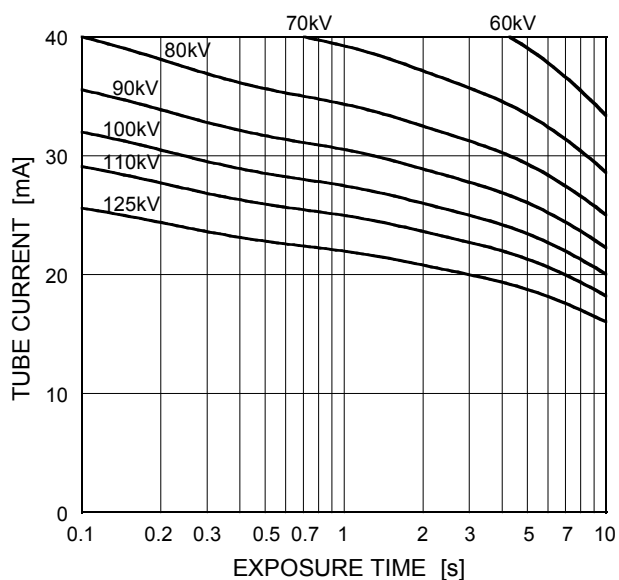
(No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Maximum Rating Charts (Absolute maximum rating charts)

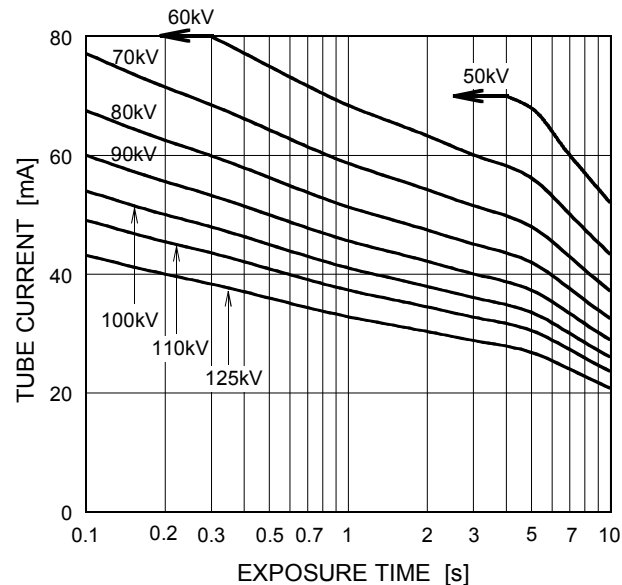
One-Peak High-Voltage Generator

Nominal Focal Spot Value: 2.0



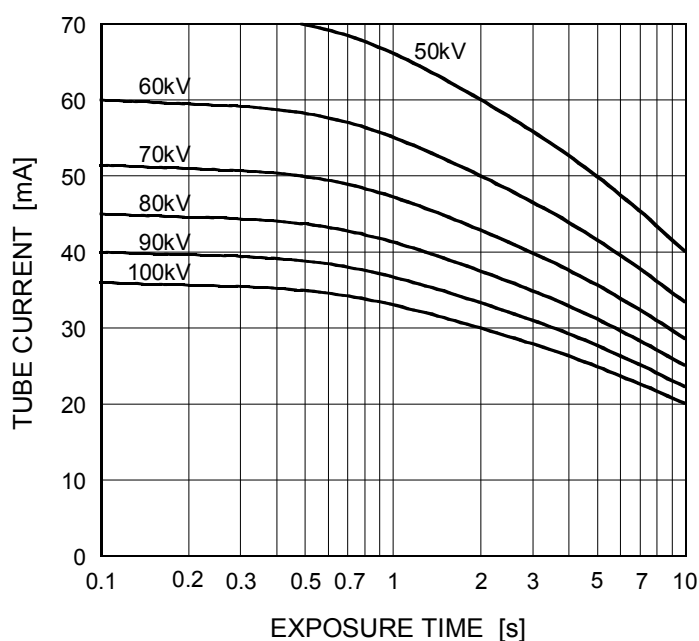
Two-Peak High-Voltage Generator

Nominal Focal Spot Value: 2.0



Constant Potential High-Voltage Generator

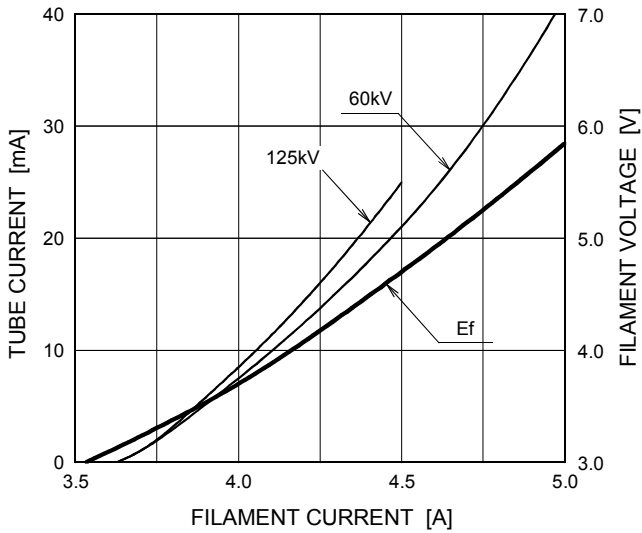
Nominal Focal Spot Value: 2.0



Emission & Filament Characteristics

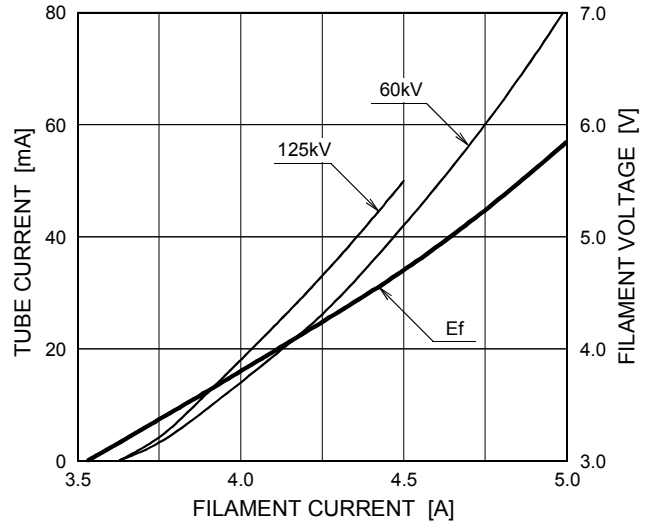
One-Peak High-Voltage Generator

Nominal Focal Spot Value: 2.0



Two-Peak High-Voltage Generator

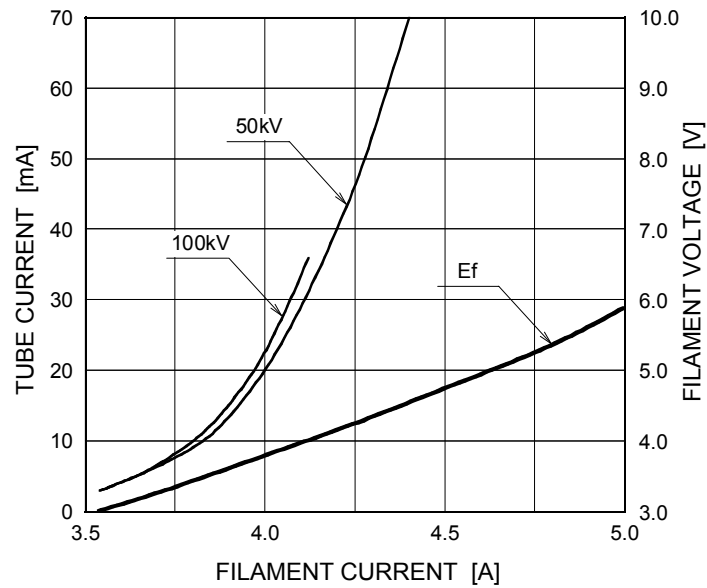
Nominal Focal Spot Value: 2.0



This graph indicates typical characteristics.

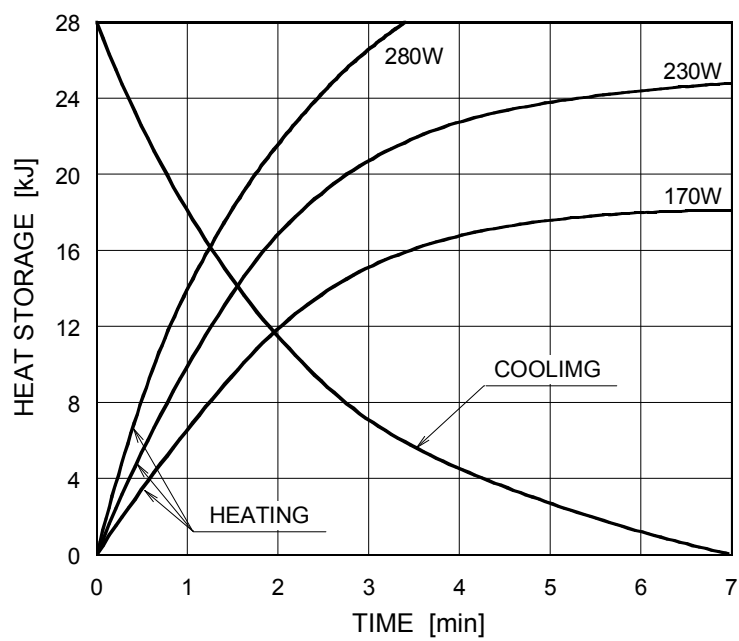
Constant Potential High-Voltage Generator

Nominal Focal Spot Value: 2.0



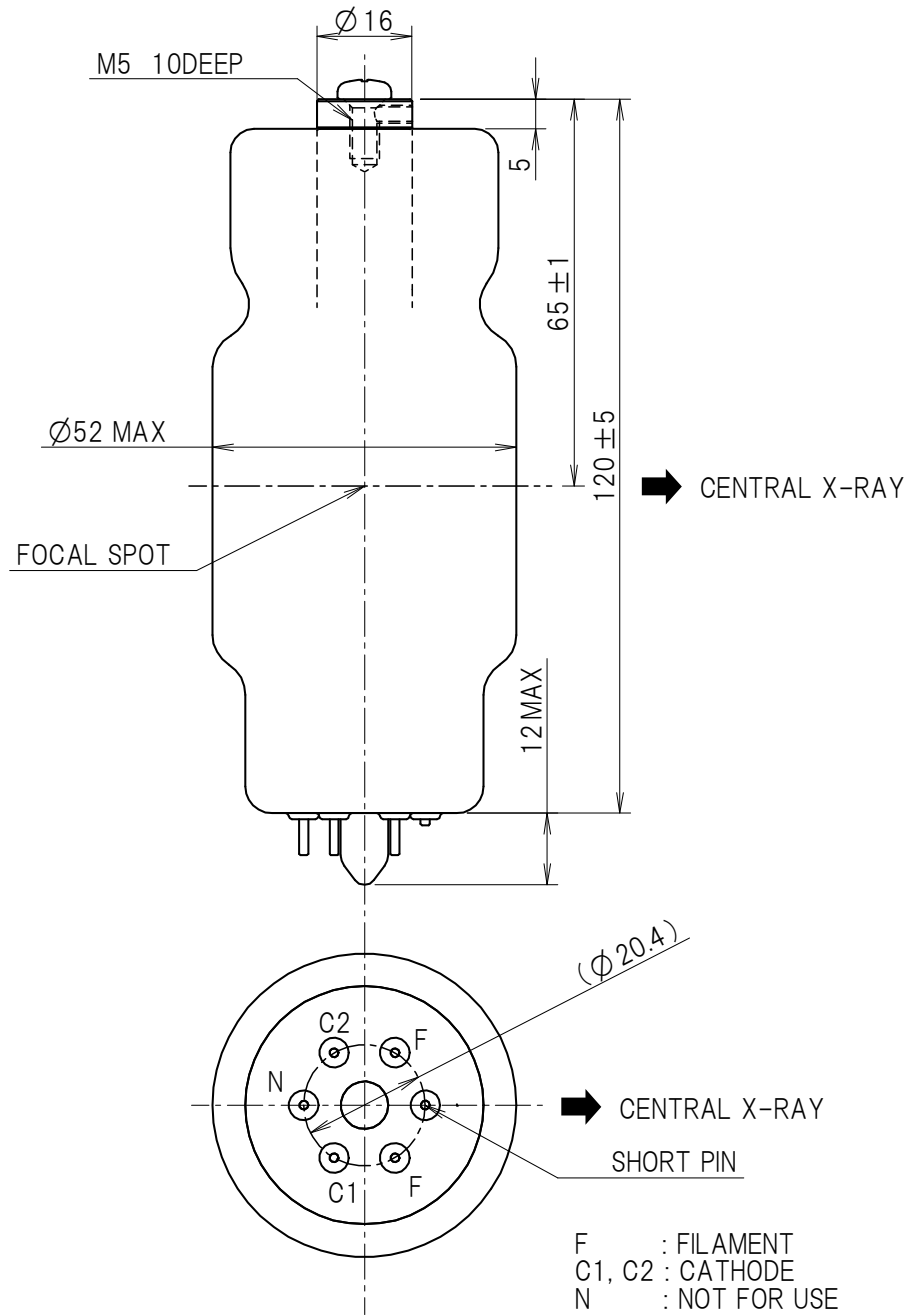
This graph indicates typical characteristics.

Anode Heating / Cooling Curve



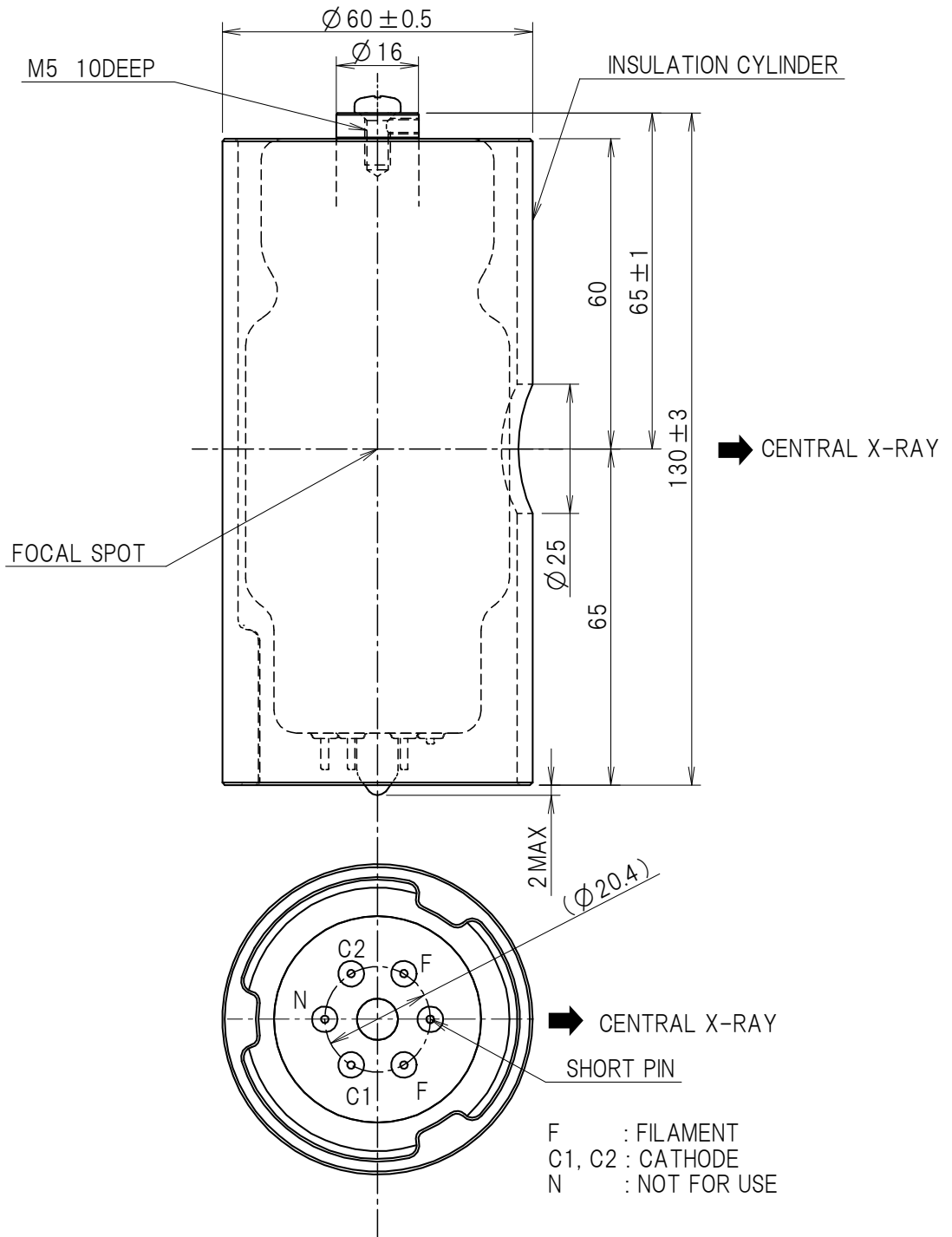
Dimensional Outline of D-205B

Unit: mm



Dimensional Outline of D-205BS

Unit: mm





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Product scope is referred to the following URL. <https://etd.canon/eng/company/quality.htm>.