

**INDUSTRIAL X-RAY TUBE  
I-318**

**X-ray Tube for Industrial Use**

- ◆ The X-ray tube I-318, which has focus 0.8, is designed for non-destructive X-ray inspection.
- ◆ This tube can be used with Max. 100 kV constant potential circuit of center grounded.

**General Data**

**Electrical:**

Circuit:

High Voltage Generator .....	Constant potential high-voltage generator
Grounding .....	Center and X-ray port grounded
Nominal X-ray Tube Voltage.....	100 kV
Nominal Focal Spot Value .....	0.8 (JIS Z 4102:2005 7.4.1(b))
Nominal Anode Input Power (Continuously) .....	300W

**Mechanical:**

Dimensions .....	See dimensional Outline
Overall Length .....	180 mm
Maximum Diameter .....	φ 59 mm
Target:	
Angle .....	25 degrees
Material .....	Tungsten
Inherent Filtration .....	Be 1.5 mm
X-ray Coverage (Angle):	
Tube Axis Direction .....	40 degrees
Nominal to Tube Axis Direction.....	42 degrees
Weight (Approx.) .....	900 g
Cooling Method .....	Oil immersed (60°C Max.) and convection oil cooling.
Tube Holding .....	Holding the mounting flange with 6-M4 screws

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## Absolute Maximum and Minimum Ratings

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

Maximum X-ray Tube Voltage .....	100 kV
Between Anode (or Cathode) and Ground .....	50 kV
Minimum X-ray Tube Voltage .....	30 kV
Maximum X-ray Tube Current .....	5 mA
Maximum Filament Current .....	4.1 A
Filament Voltage (at Maximum Filament Current) .....	2.0 ~ 2.8 V
Filament Frequency Limit .....	DC or AC (Sine Wave) 0 ~ 20 kHz

## Environmental Limits

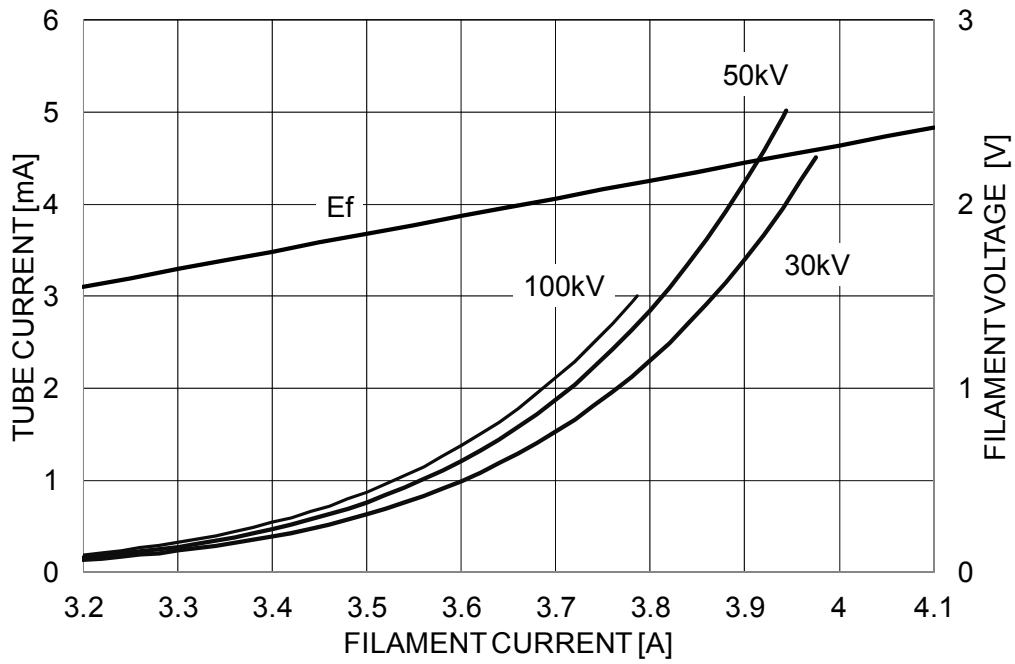
### Operating Limits (in dielectric oil):

Oil Temperature .....	10 ~ 60°C
Oil pressure .....	70 ~ 140 kPa

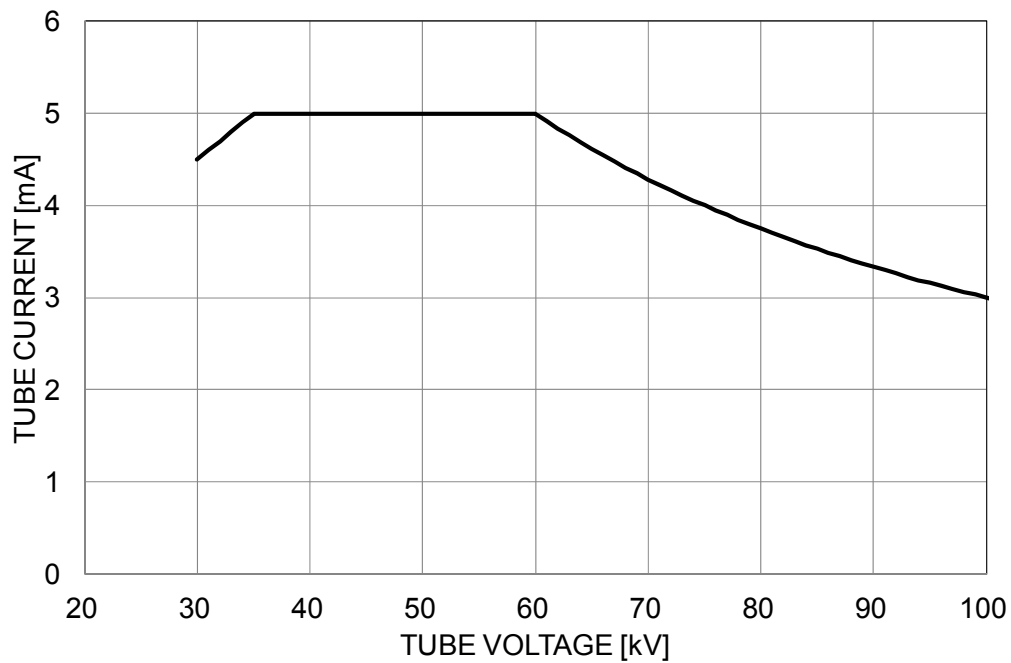
### Shipping and Storage Limits:

Temperature .....	-40 ~ 70 °C
Humidity .....	10 ~ 90 %
	(No condensation)
Atmospheric Pressure .....	50 ~ 106 kPa

### Emission & Filament Characteristics

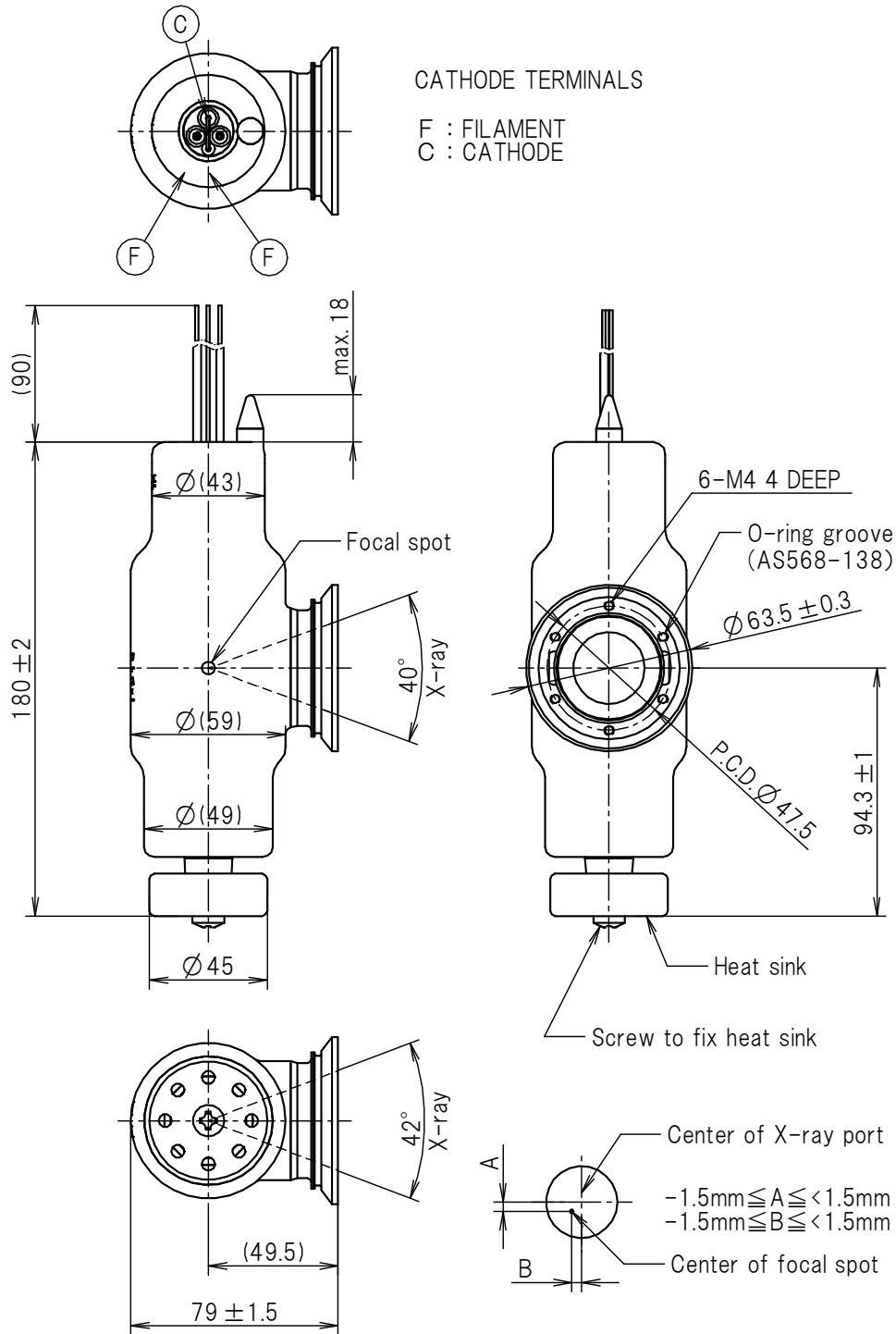


### Maximum Input (continuous)



### Dimensional Outline

Unit: mm



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 ·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>.