

TOSHIBA X-RAY TUBE
D-058 D-058R
D-058S D-058SR
D-058SB D-058SBR

Stationary Anode X-ray Tube

- ◆ Especially designed for dental radiography unit.
- ◆ Provided with an insulation cylinder (D-058S/D-058SR) and lead cylinder (D-058SB/D-058SBR).
- ◆ These tubes have focus 0.5, 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	0.5
Nominal Anode Input Power (at 1.0s):	
D-058 / D-058S / D-058SB	635 W
D-058R / D-058SR / D-058SBR	675 W
	(See Rating Chart)
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	12.5 degrees
Material	Tungsten
Inherent Filtration	At least 1.0 mm Al
X-ray Coverage	φ 80 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:

D-058	Approx. 105 g
D-058S	Approx. 145 g
D-058SB	Approx. 265 g
D-058R	Approx. 165 g
D-058SR	Approx. 205 g
D-058SBR	Approx. 325 g

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

Tube Holding:

D-058	Holding the glass envelope of the anode end and cathode end, or the screw of the anode shank.
D-058R	Holding the glass envelope of the anode end and cathode end.
D-058S / D-058SR	Holding the insulation cylinder.
D-058SB / D-058SBR	Holding the lead 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	13 mA

Filament Characteristics:

Maximum Filament Current	3.0 A
Filament Voltage (At maximum Filament Current 3.0A)	2.8 ~ 3.6 V

Filament Frequency Limits DC or AC (Sine Wave) 0 ~ 20 kHz

Thermal Characteristics (Oil Temperature: 25°C):

Anode Heat Content:

D-058 / D-058S / D-058SB	7 kJ
D-058R / D-058SR / D-058SBR	13 kJ

Maximum Anode Heat Dissipation:

D-058 / D-058S / D-058SB	210 W
D-058R / D-058SR / D-058SBR	300 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:

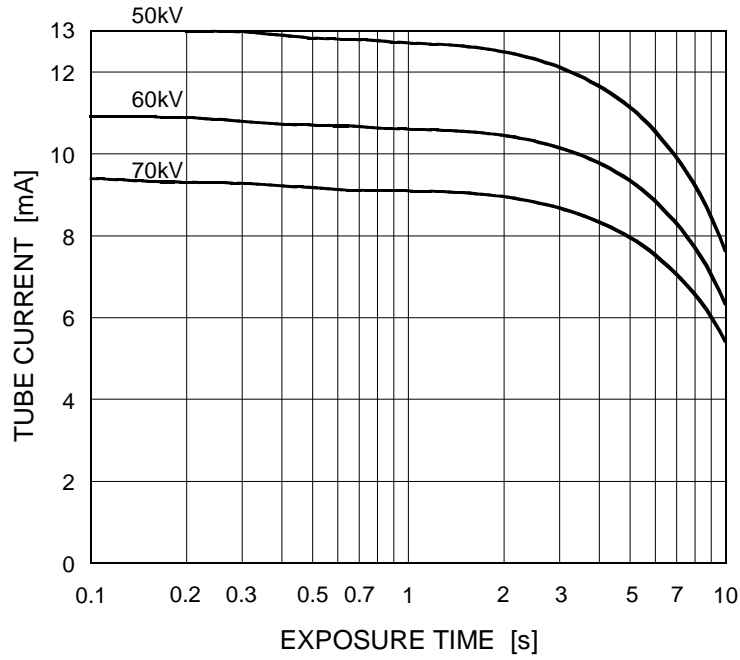
Temperature	-40 ~ 70 °C
Humidity	10 ~ 90 % (No condensation)

Atmospheric Pressure 50 ~ 106 kPa

Maximum Rating Charts (Absolute maximum rating charts)

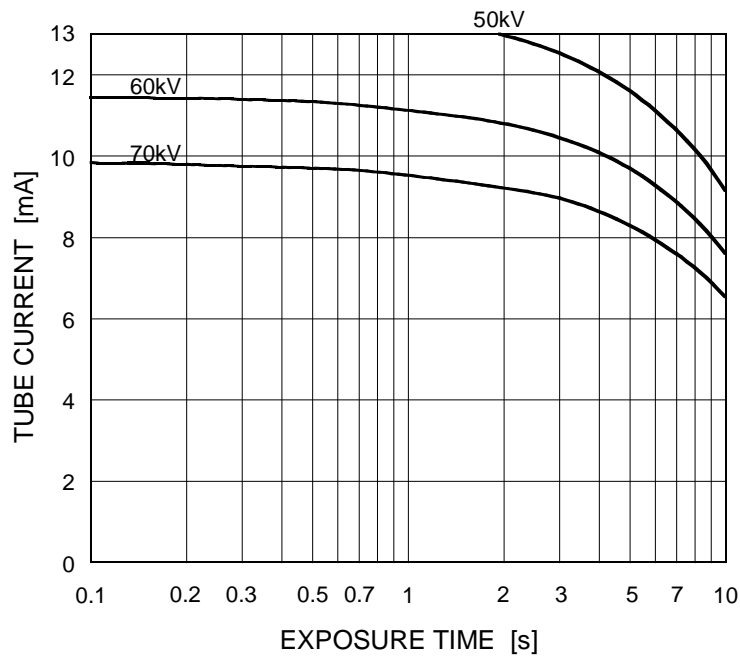
D-058 / D-058S / D-058SB

Nominal Focal Spot Value: 0.5

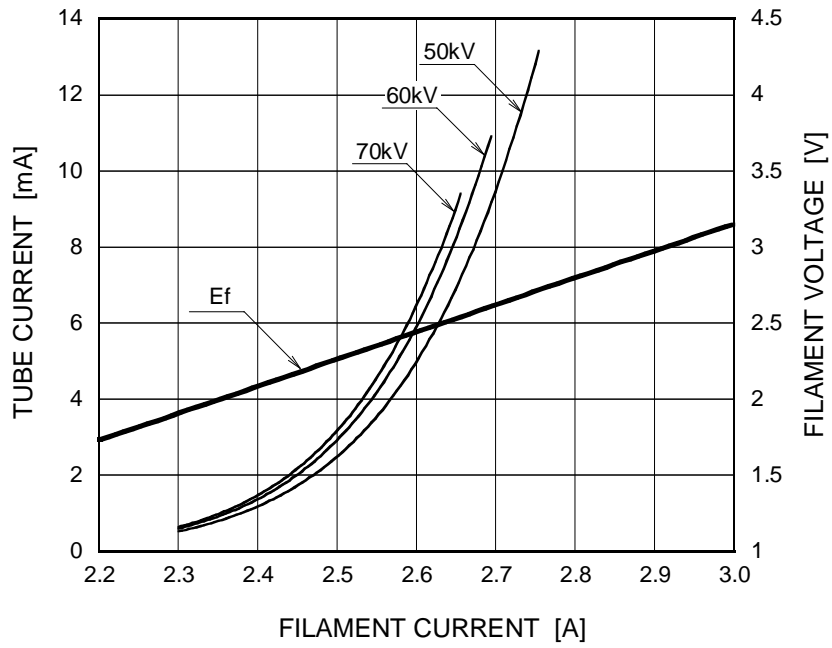


D-058R / D-058SR / D-058SBR

Nominal Focal Spot Value: 0.5



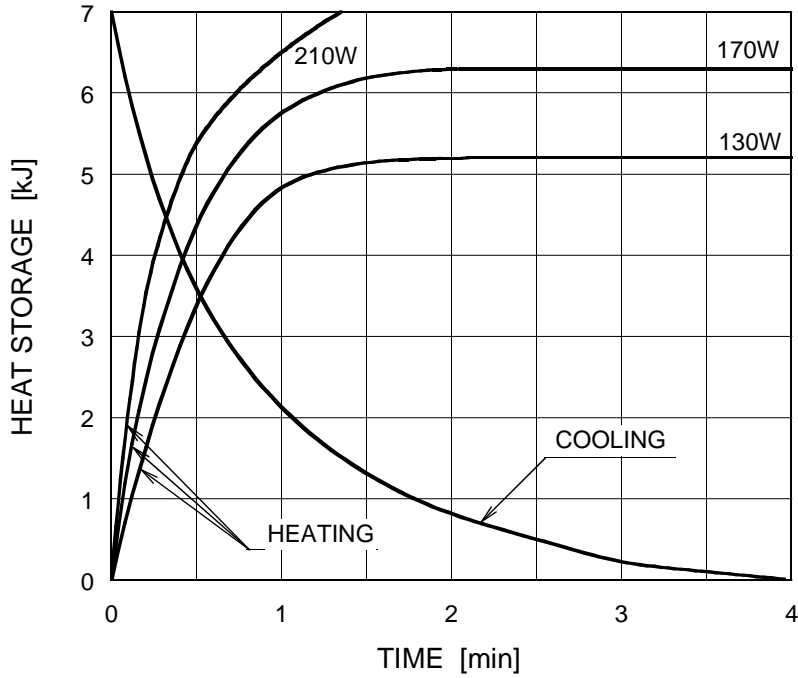
Emission & Filament Characteristics



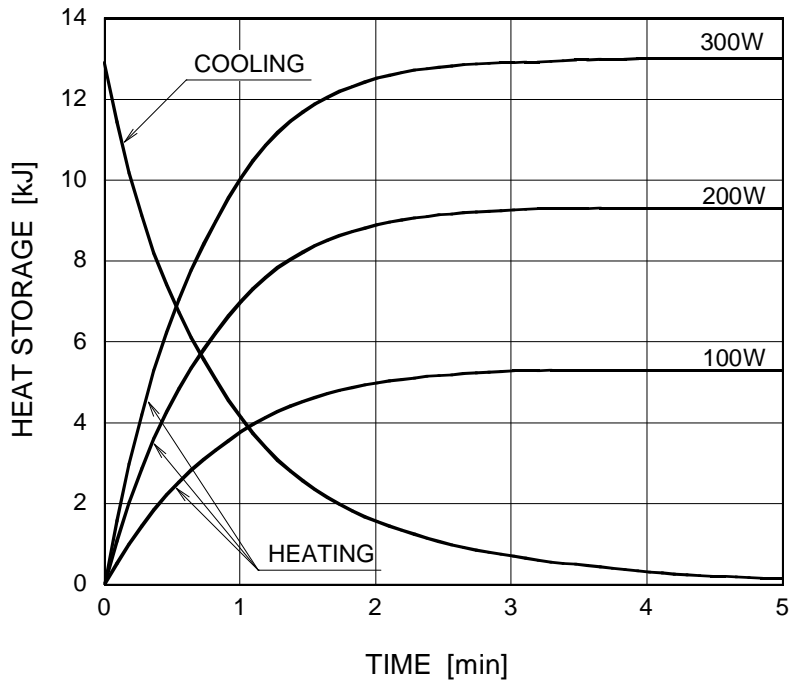
Note: This graph indicates typical characteristics.

Anode Heating / Cooling Curve

D-058 / D-058S / D-058SB

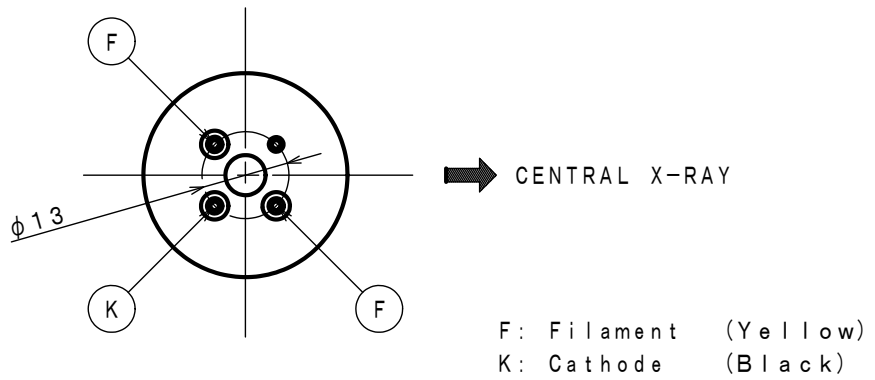
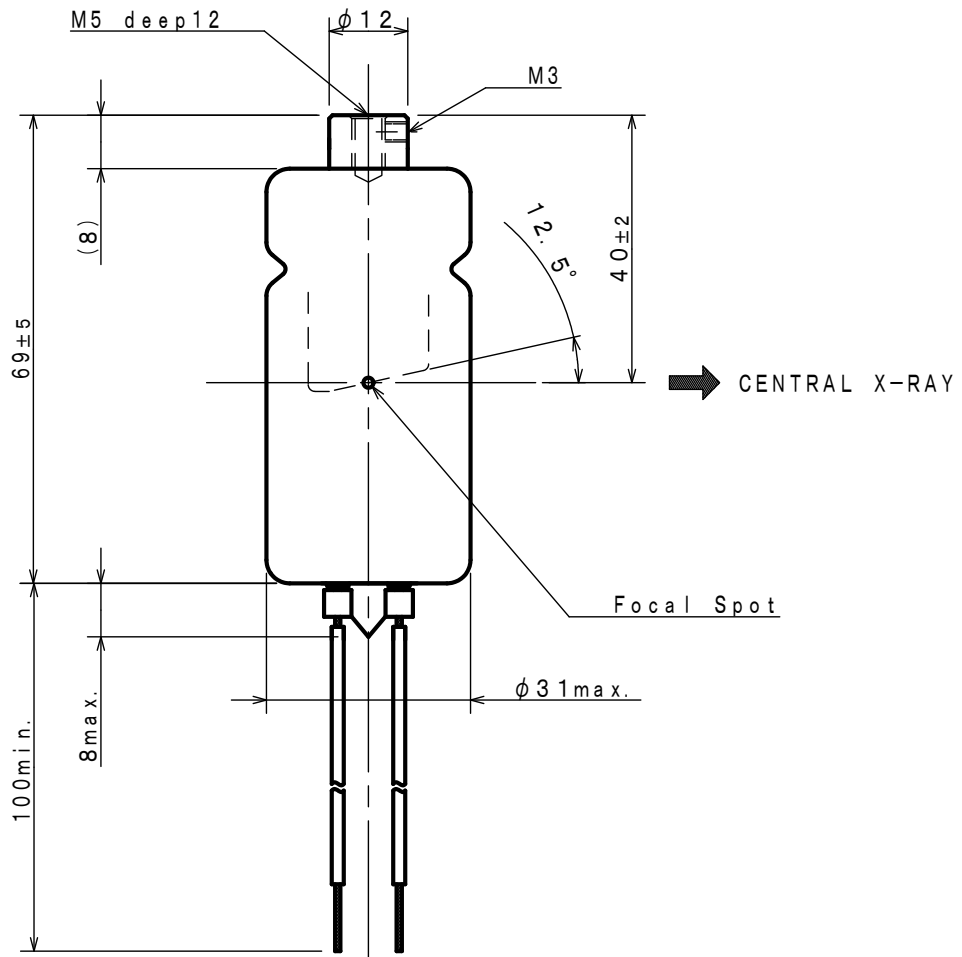


D-058R / D-058SR / D-058SBR



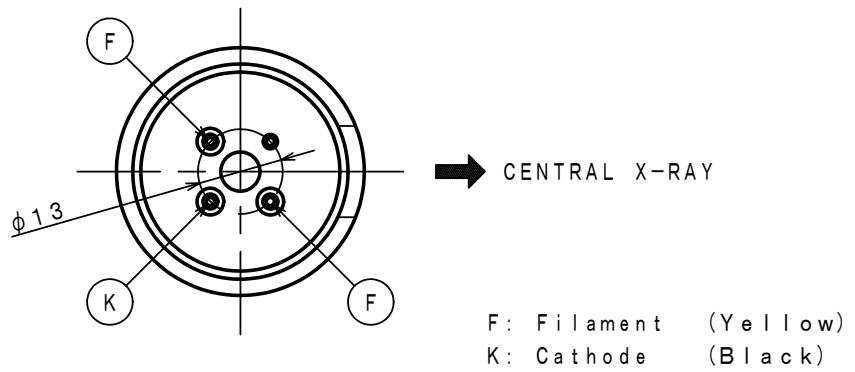
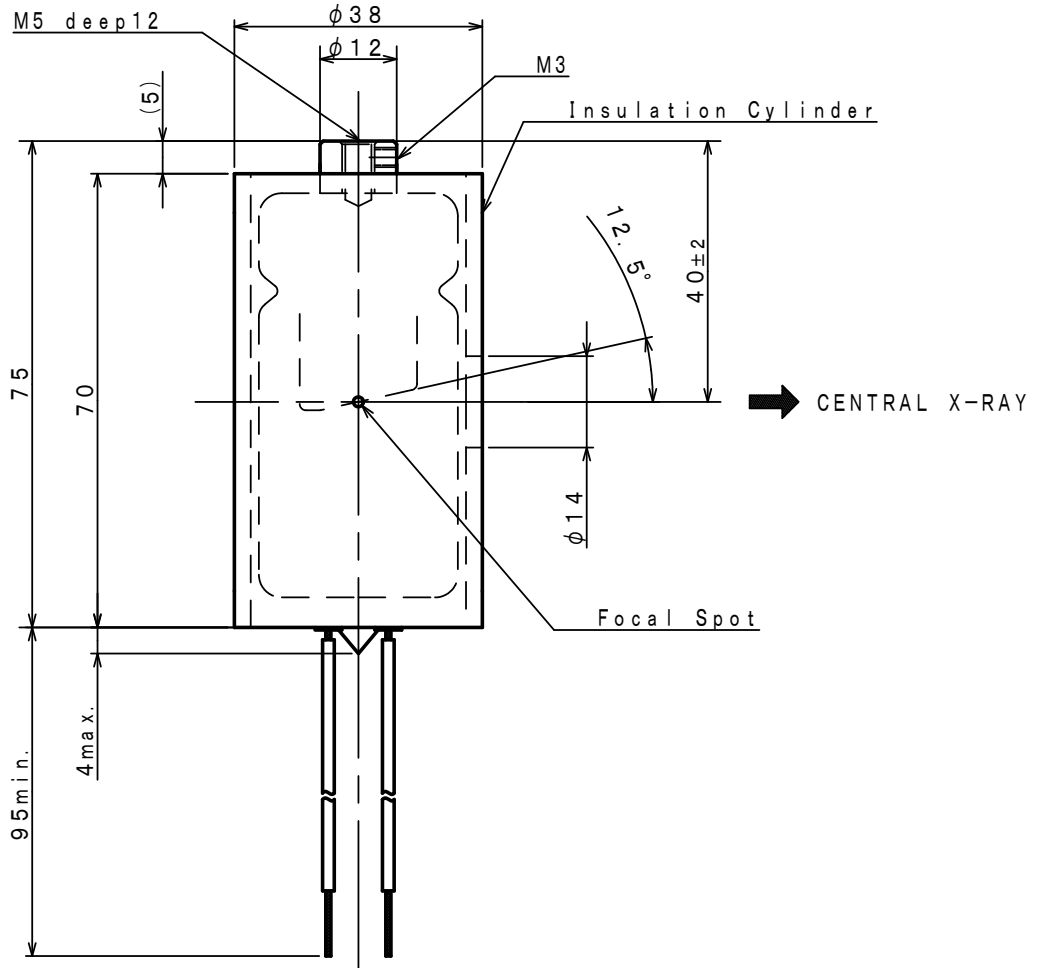
Dimensional Outline of D-058

Unit: mm



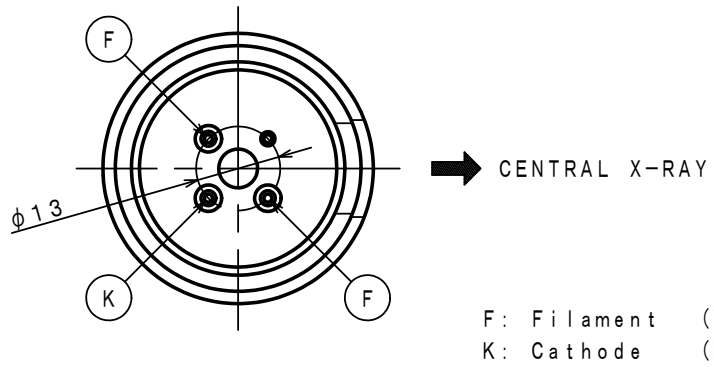
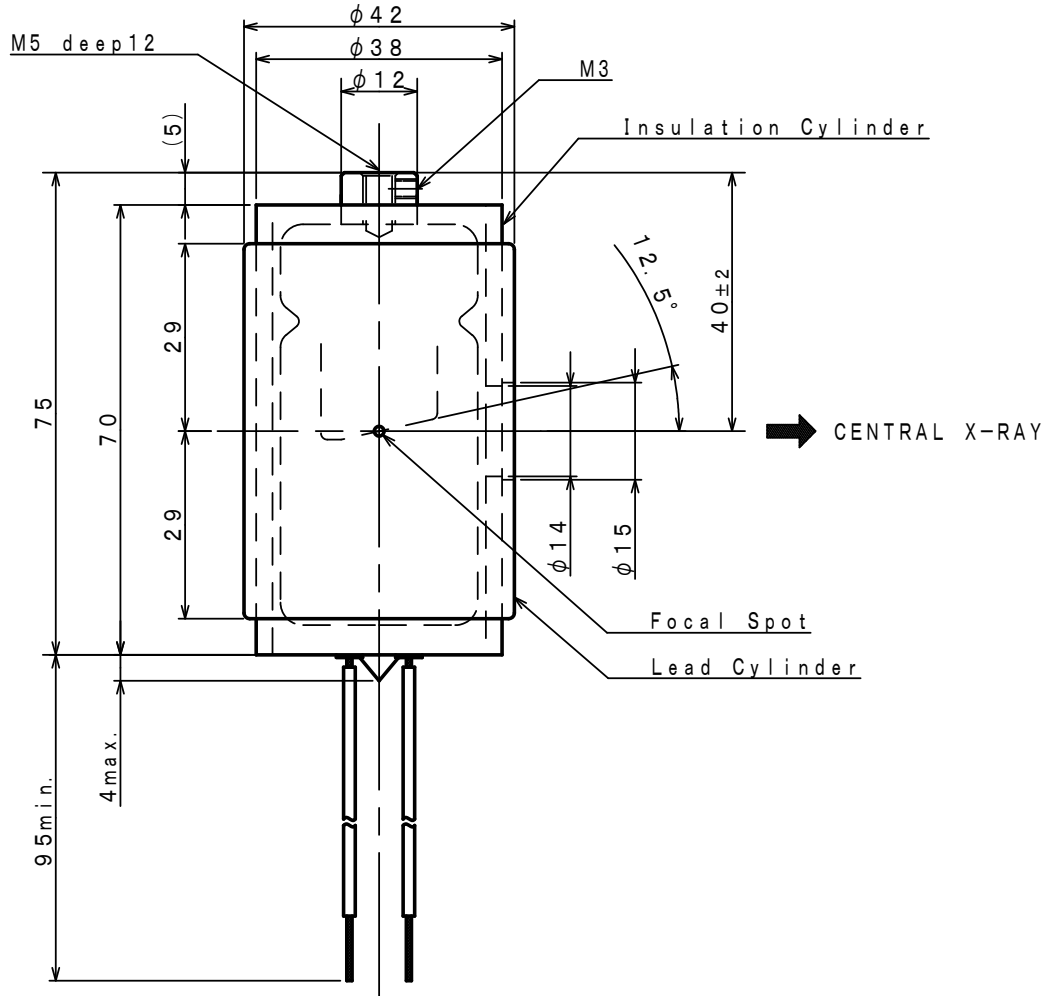
Dimensional Outline of D-058S

Unit: mm



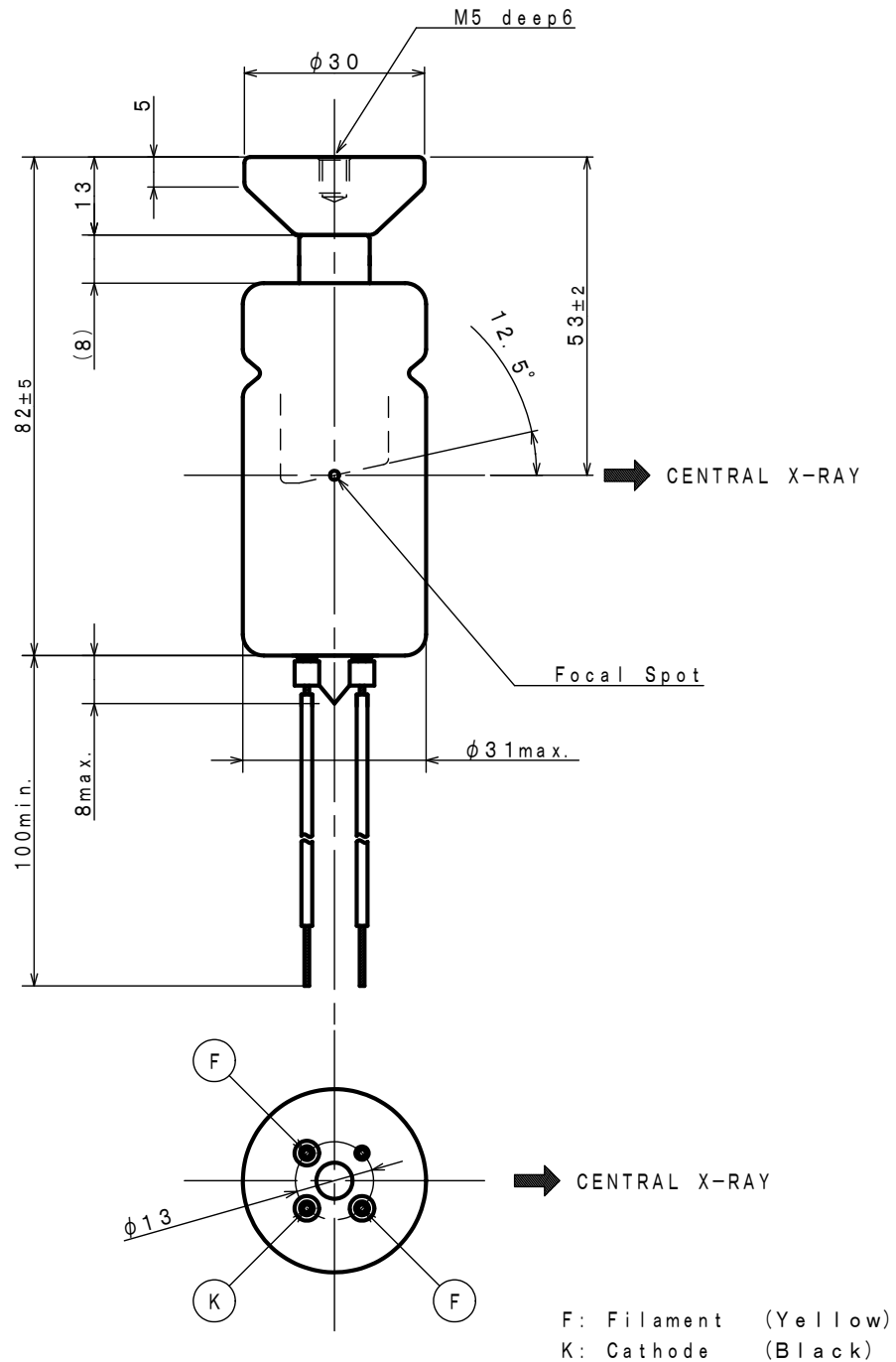
Dimensional Outline of D-058SB

Unit: mm



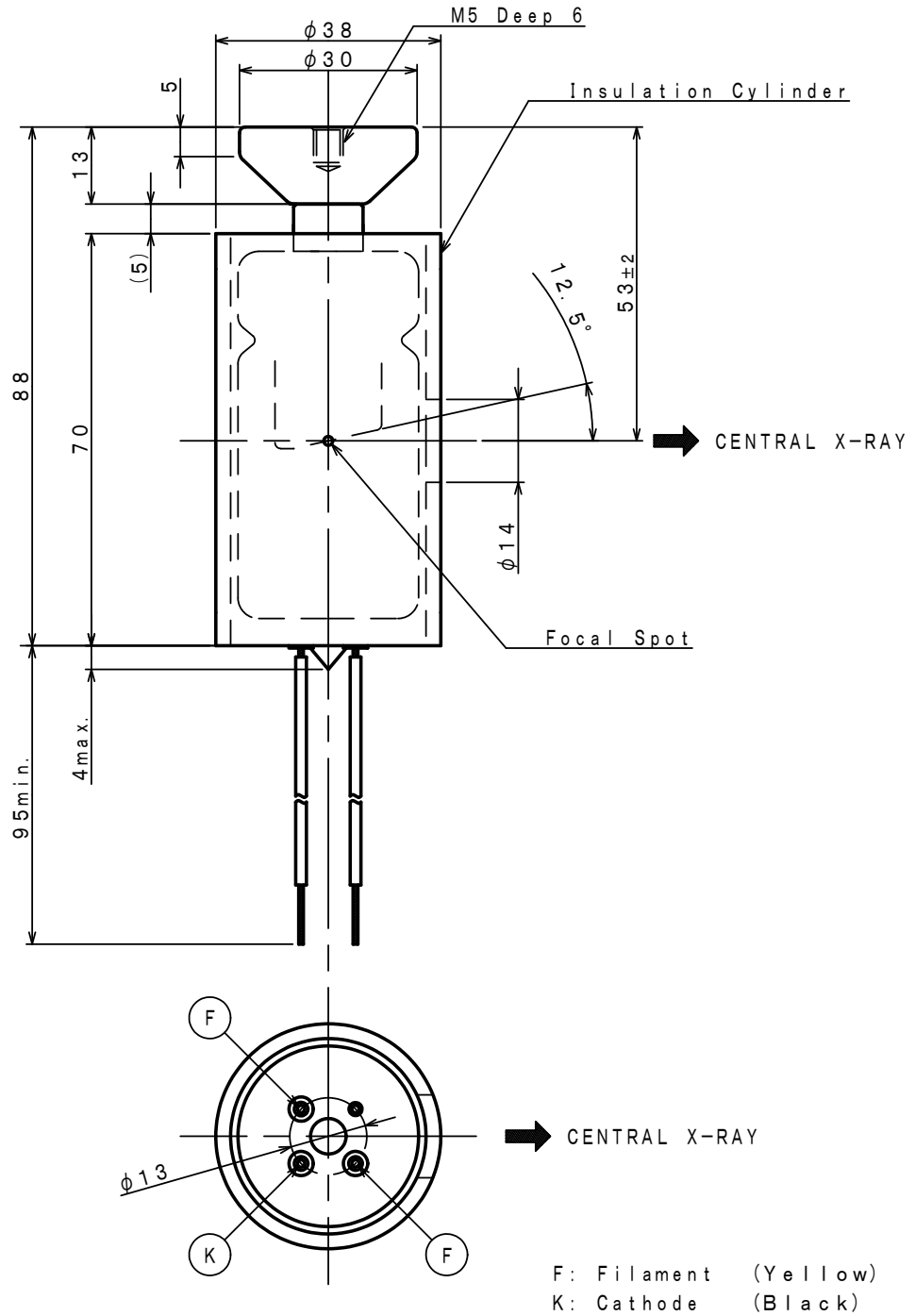
Dimensional Outline of D-058R

Unit: mm



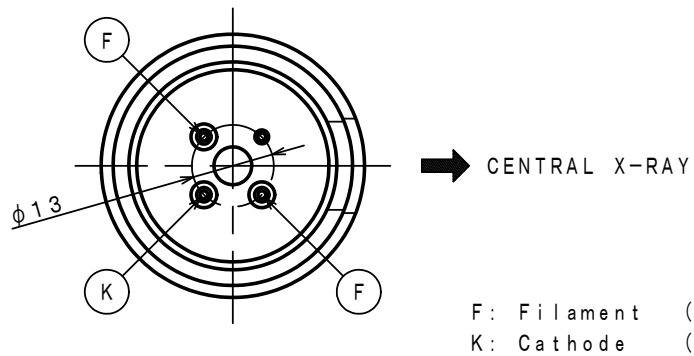
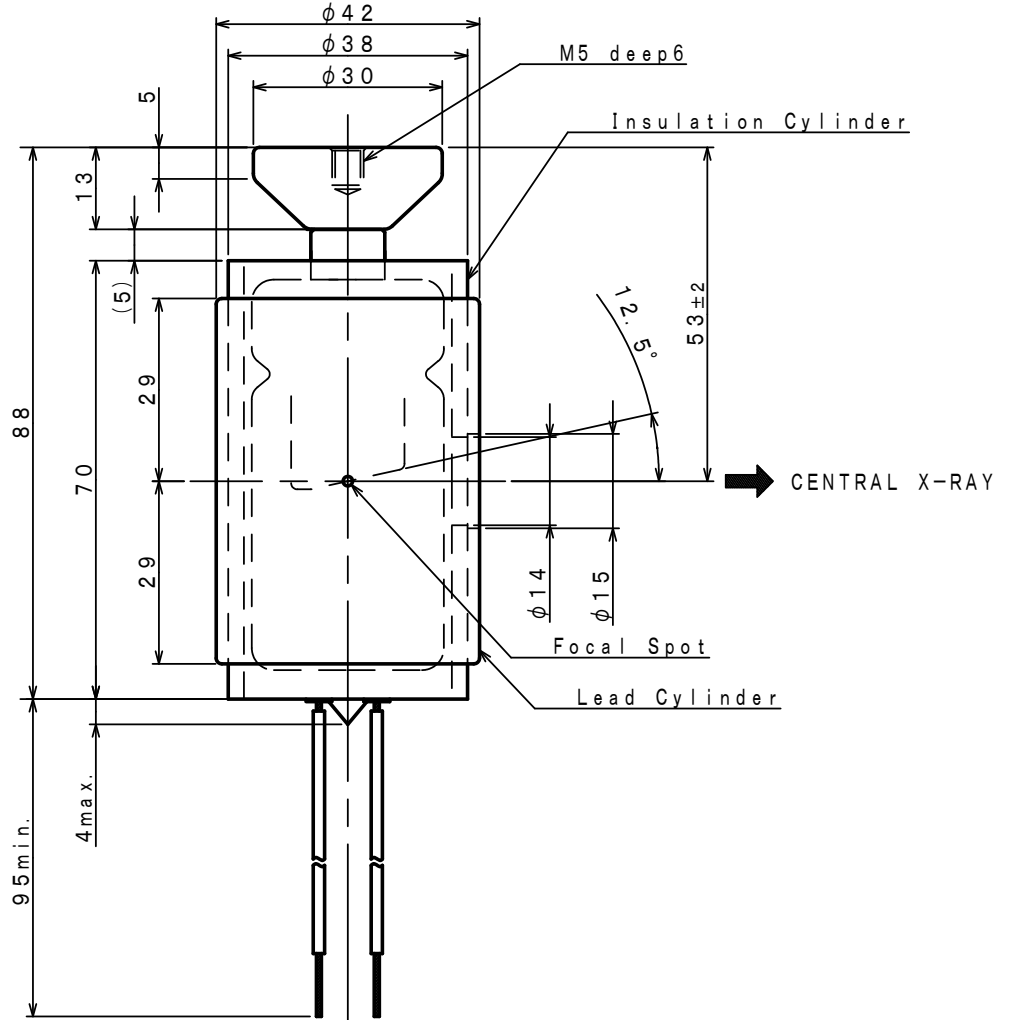
Dimensional Outline of D-058SR

Unit: mm



Dimensional Outline of D-058SBR

Unit: mm



F: Filament (Yellow)
K: Cathode (Black)

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