

ROTANODE™
E7846 CE 0197

Rotating Anode X-ray Tube

- ◆ Rotating anode X-ray tube for the purpose of general diagnostic X-ray procedures.
- ◆ Specially processed Rhenium-tungsten faced molybdenum target of 58 mm diameter.
- ◆ This tube has foci 1.3 and 0.6, and is available for a maximum tube voltage 130 kV.



General Data

Application **General Radiography**

Electrical:

Circuit:

High Voltage Generator Constant Potential High-Voltage Generator
Grounding Center-Grounded

Nominal X-ray Tube Voltage (IEC60613:2010):

Radiographic 130 kV

Nominal Focal Spot Value (IEC60336:2005):

Large Focus 1.3
Small Focus 0.6

Nominal Anode Input Power (at 0.1s) See rating charts

Large Focus 32 kW
Small Focus 11 kW

Nominal Radiographic Input Power (IEC60613:2010):

Large Focus 29 kW
Small Focus 10 kW

Anode Speed:

50 Hz Minimum 2700 min⁻¹

Mode of Operation Intermittent

★The information contained herein is presented only as a guide for the applications of our products.
No Responsibility is assumed by TOSHIBA ELECTRON TUBES & DEVICES CO.,LTD.(TETD) for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of TETD or others.
★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.

Mechanical:

Dimensions	See dimensional outline
Overall Length	220 mm
Maximum Diameter	81 mm
Target:	
Anode Angle	13.5 degrees
Diameter	58 mm
Construction	Rhenium-Tungsten faced Molybdenum
Inherent Filtration.....	At least 0.7 mm Al at 75 kV
Weight (Approx.)	1.2 kg
Cooling Method	Oil immersed (80°C Max.) and convection oil cooling

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

Maximum X-ray Tube Voltage (IEC60613:2010)	
Radiographic	130 kV
Between Anode (or Cathode) and Ground	65 kV
Minimum X-ray Tube Voltage	50 kV
Maximum X-ray Tube Current (IEC60613:2010)	See rating charts
Large Focus	500 mA
Small Focus	220 mA
Maximum Filament Current:	
Large Focus	5.2 A
Small Focus	4.8 A
Filament Voltage:	
Large Focus (At maximum filament current 5.2 A)	6.41 ~ 9.2 V
Small Focus (At maximum filament current 4.8 A)	5.14 ~ 7.0 V
Filament Frequency Limits	0 ~ 20 kHz
Continuous Anode Input Power (IEC60613:2010)	60 W (82 HU/s)
Thermal Characteristics:	
Anode Heat Content	80 kJ
Maximum Anode Heat Dissipation	250 W

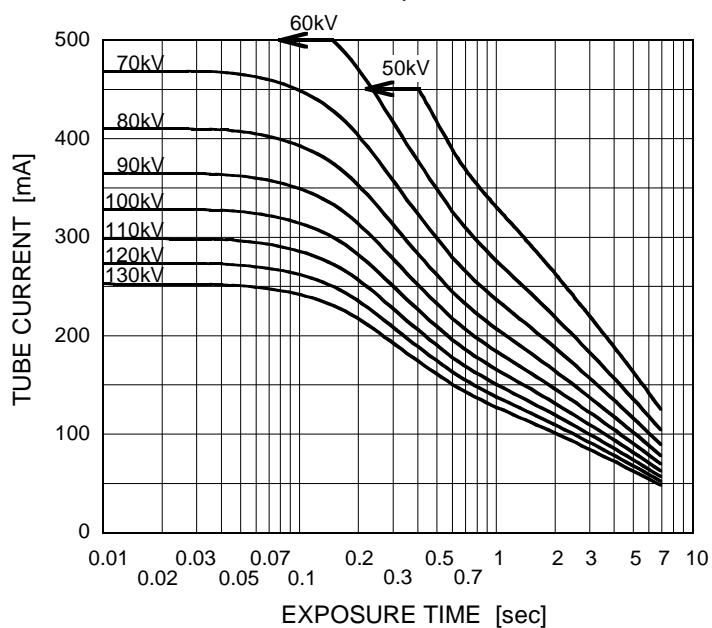
Environmental Limits

Operating Limits (in dielectric oil):	
Oil Temperature	10 ~ 80 °C
Oil Pressure	70 ~ 140 kPa
Shipping and Storages Limits:	
Temperature	-20 ~ 70 °C
Humidity	20 ~ 90 %
	(No condensation)
Atmospheric Pressure	50 ~ 106 kPa

Maximum Rating Charts (Absolute Maximum Rating Charts)

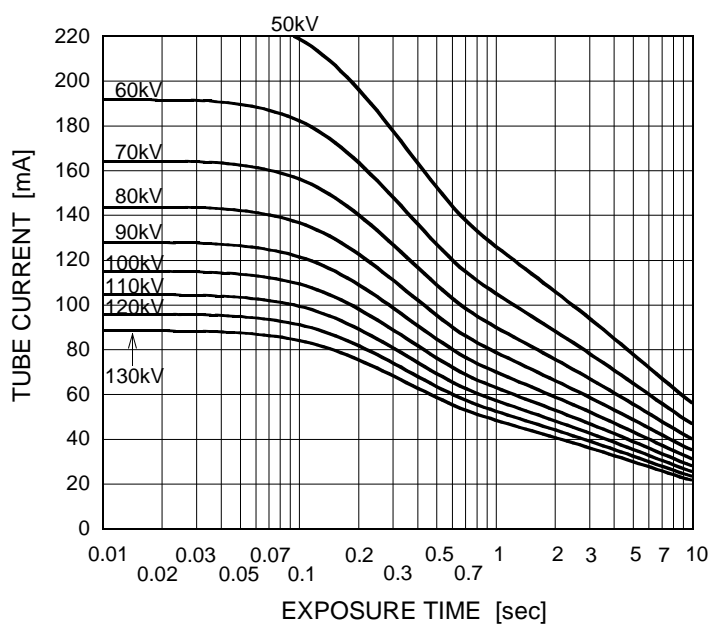
Conditions: Tube Voltage
Constant Potential High-Voltage Generator
Stator Power Frequency 50 Hz

Nominal Focal Spot Value: 1.3 ■



Refer to IEC60613:2010

Nominal Focal Spot Value: 0.6 □

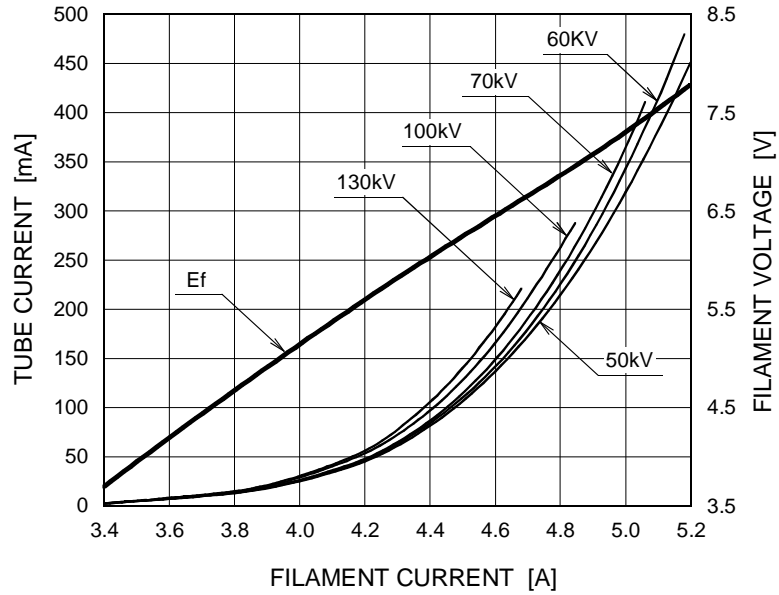


Refer to IEC60613:2010

Emission & Filament Characteristics

Constant Potential High-Voltage Generator

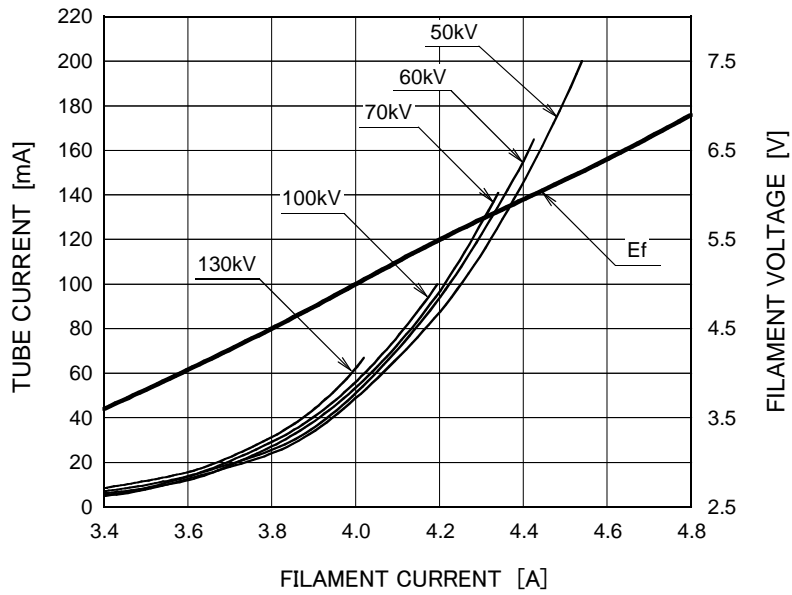
Nominal Focal Spot Value: 1.3 ■



Note1) For Reference Only

Note2) Refer to IEC60613:2010

Nominal Focal Spot Value: 0.6 □

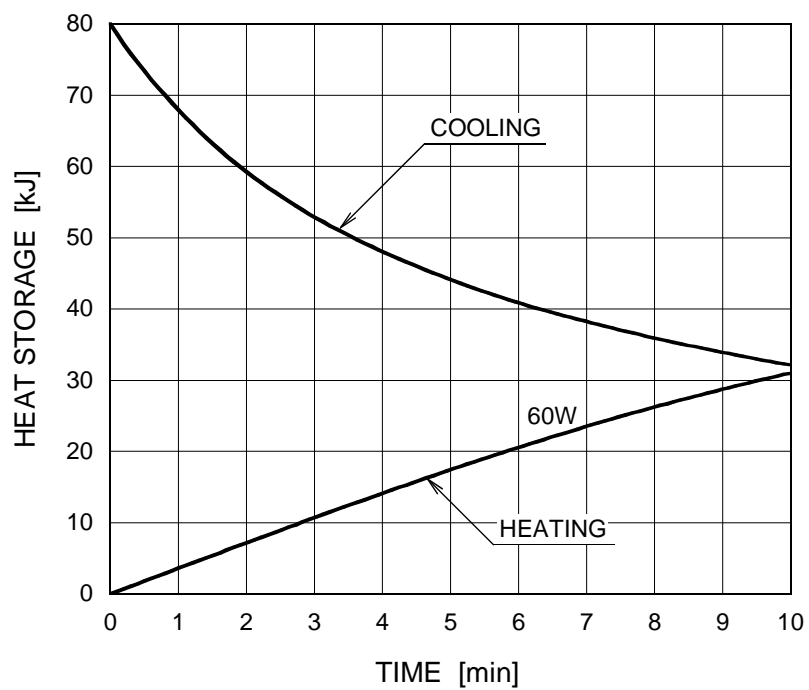


Note1) For Reference Only

Note2) Refer to IEC60613:2010

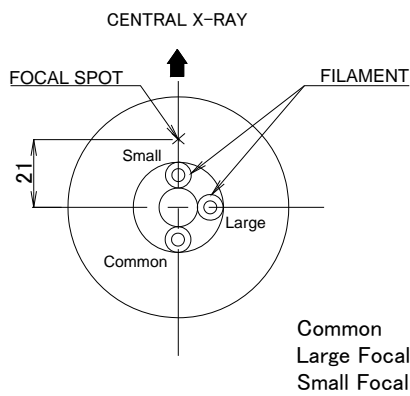
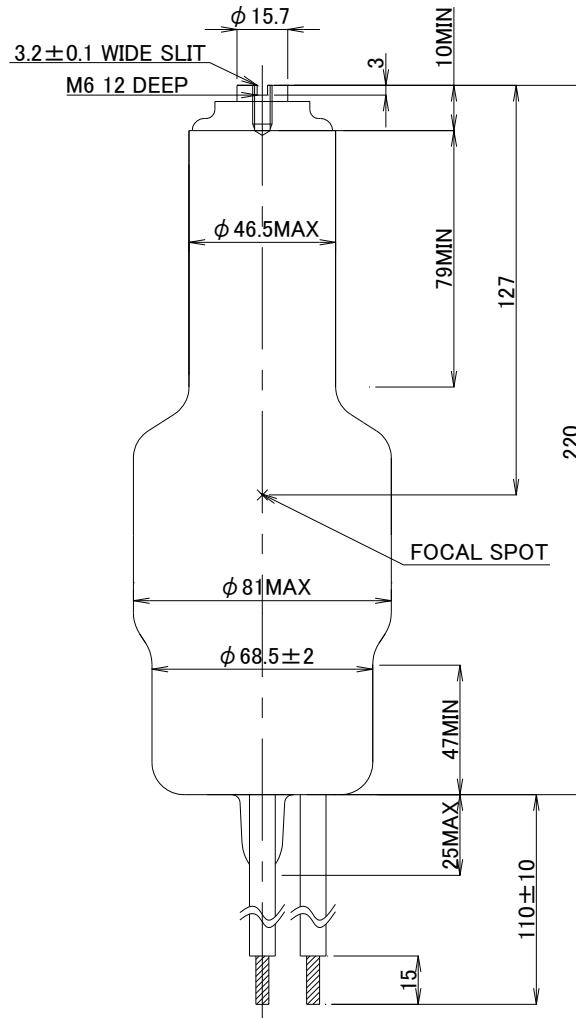
Thermal Characteristics

Anode Heating / Cooling Curve



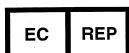
Dimensional Outline

Unit mm



Note: Each cathode lead wire is insulated with colored vinyl pipe.

OVERSEAS SUBSIDIARIES AND AFFILIATES



EU REPRESENTATIVE

·TOSHIBA ELECTRONICS EUROPE GMBH

HANSAALLEE 181 40549 DÜSSELDORF, GERMANY
PHONE +49 (211) 5296-107 FAX +49 (211) 5296-402

For Sales & Technical Services, please contact the following representative:

·TOSHIBA ELECTRONICS EUROPE GMBH

HANSAALLEE 181 40549 DÜSSELDORF, GERMANY
PHONE +49 (211) 5296-107 FAX +49 (211) 5296-402

·TOSHIBA AMERICA ELECTRONIC COMPONENTS, INC.

2150 EAST LAKE COOK ROAD, SUITE 310
BUFFALO GROVE, ILLINOIS 60089 USA
PHONE +1 (847) 484-2400 FAX +1 (847) 541-7287

·TOSHIBA ELECTRON DEVICES & MATERIALS (SHANGHAI) CO., LTD. (TEMS)

RM1606, SH-PLAZA,
No.336, XIZANG ROAD (MIDDLE), SHANGHAI, 200001, CHINA
PHONE +86 (21) 6361-0077 FAX +86 (21) 6351-5760