

**TOSHIBA X-RAY TUBE  
 D-125 / D-125S / D-125SB**

**Stationary Anode X-ray Tube**

- ◆ Especially designed for dental X-ray unit.
- ◆ Provided with on insulation cylinder (D-125S) and lead cylinder (D-125SB).
- ◆ These tubes have focus 1.2, and are available for maximum tube voltage 100 kV or 125 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:

D-125 ..... 125 kV  
 D-125S, D-125SB ..... 100 kV

Nominal Focal Spot Value ..... 1.2

Nominal Anode Input Power (at 1.0s) ..... 2700 W  
 (See rating charts)

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

**Mechanical:**

Dimensions:

Overall Length ..... See dimensional outline  
 Maximum Diameter ..... See dimensional outline

Target:

Anode Angle ..... 16 degrees  
 Material ..... Tungsten

Inherent Filtration ..... At least 0.8 mm Al at 50 kV

X-ray Coverage ..... 354 x 354 mm at SID 750 mm

★The information contained herein is presented only as a guide for the applications of our products.  
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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 (approx.):

D-125 .....	350 g
D-125S .....	430 g
D-125SB .....	780 g

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

Tube Holding:

D-125 .....	Holding the glass envelope of the anode end and cathode end, or the screw of the anode shank.
D-125S .....	Holding the insulation cylinder.
D-125SB .....	Holding the lead cylinder.

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

Maximum X-ray Tube Voltage:

D-125 .....	125 kV
D-125S, D-125SB .....	100 kV

Between Anode (or Cathode) and Ground:

D-125 .....	62.5 kV
D-125S, D-125SB .....	50 kV

Minimum Tube Voltage ..... 40 kV

Maximum X-ray Tube Current ..... 40 mA

Maximum Filament Current ..... 3.1 A

Filament Voltage:

At maximum filament current (3.1A) ..... 2.7 ~ 3.6 V

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

Thermal Characteristics:

Anode Heat Content ..... 35 kJ

Maximum Anode Heat Dissipation ..... 250 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 %

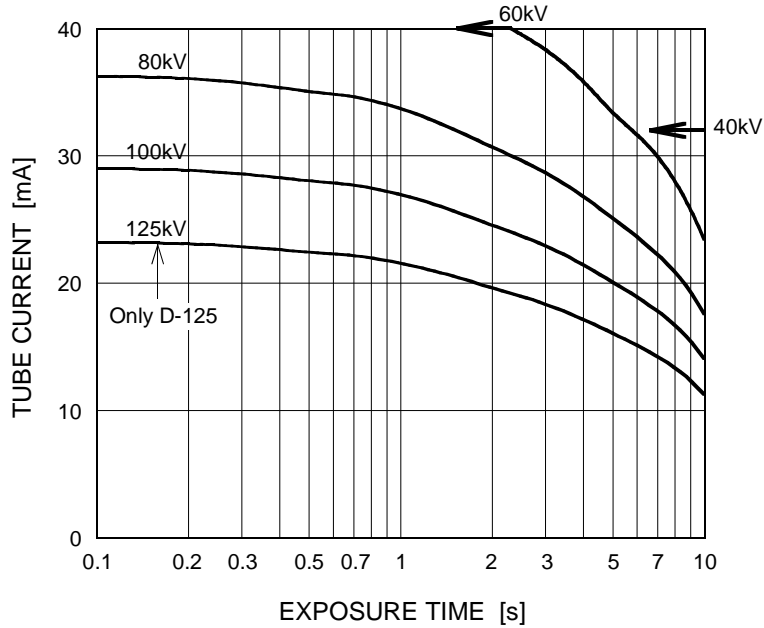
(No condensation)

Atmospheric Pressure ..... 50 ~ 106 kPa

## Maximum Rating Charts (Absolute maximum rating charts)

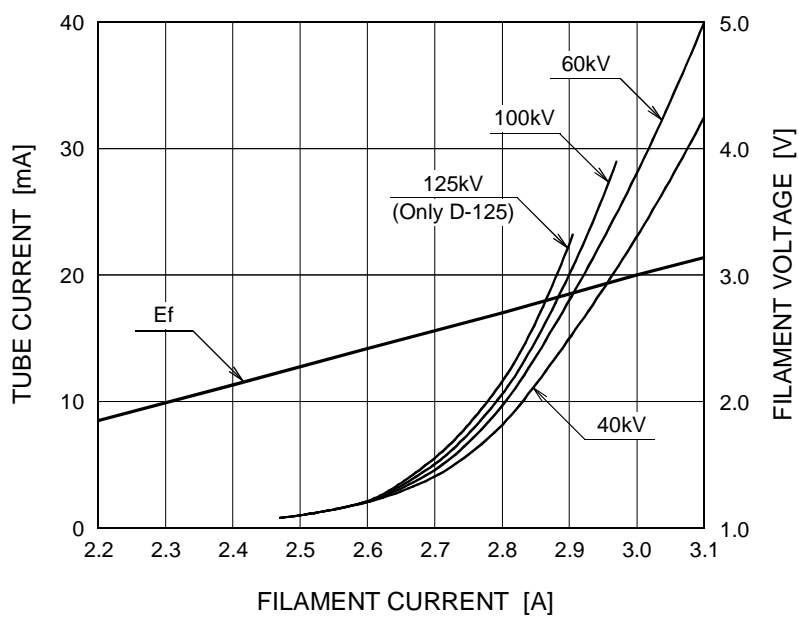
Constant Potential High-Voltage Generator

Nominal Focal Spot Value:1.2



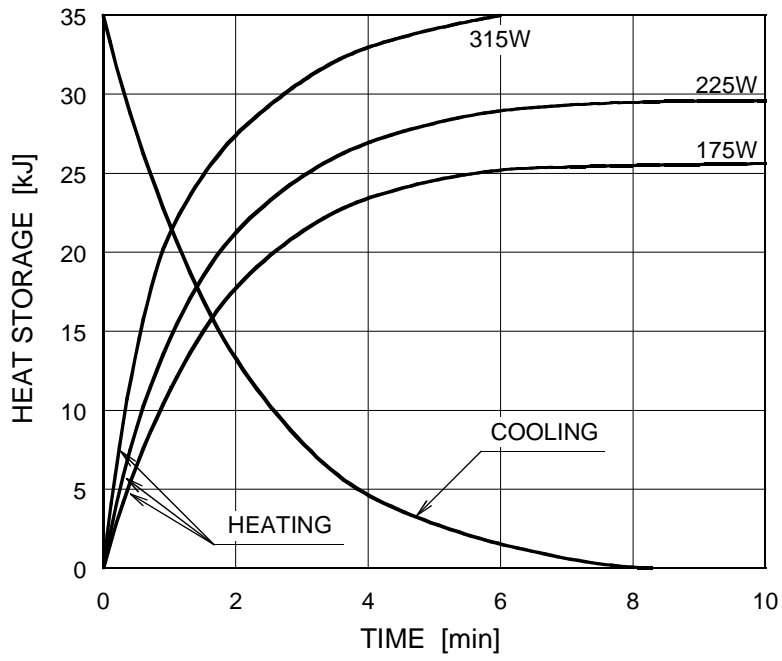
## Emission & Filament Characteristics

Constant Potential High-Voltage Generator



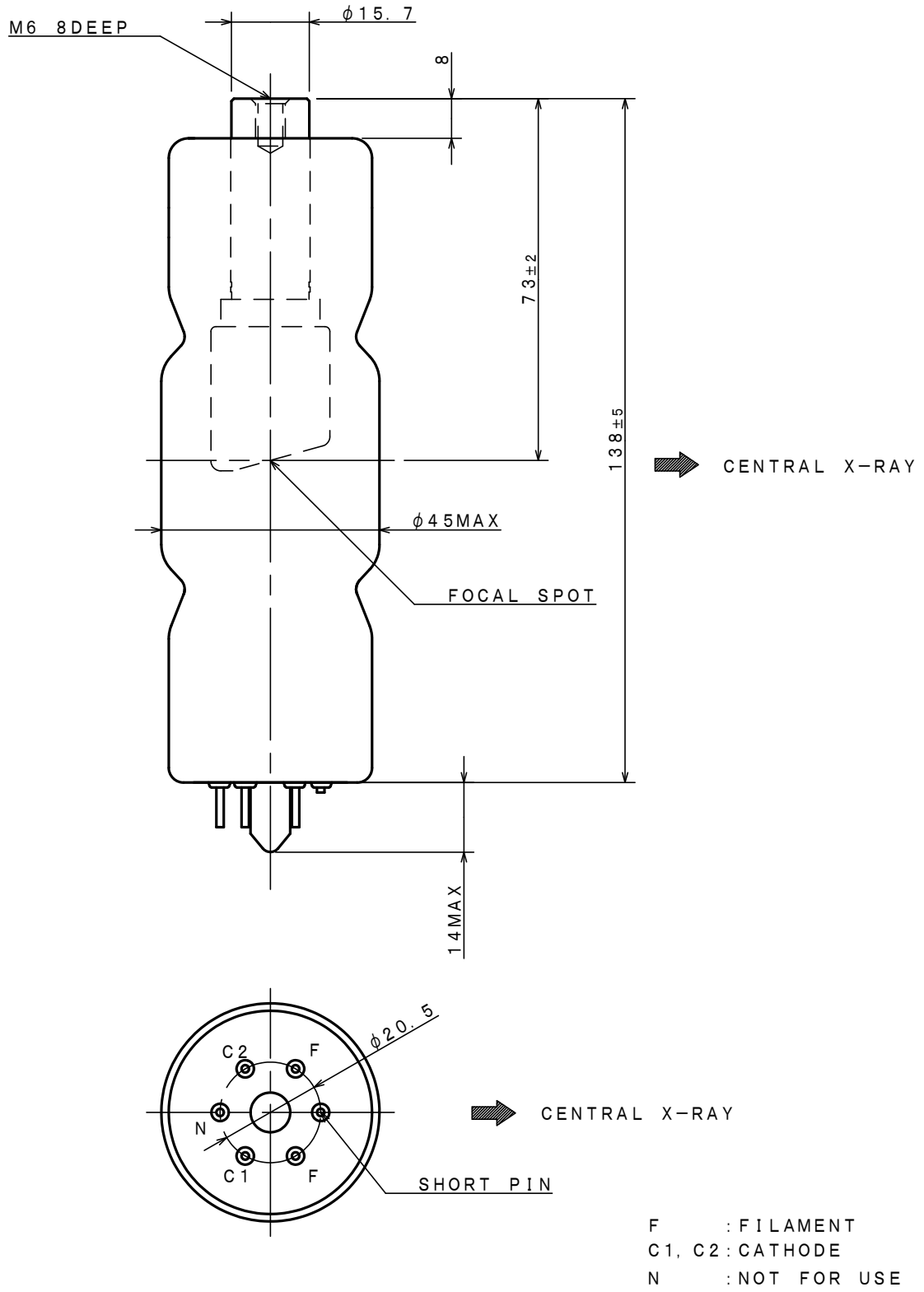
Note: This graph indicates typical characteristics.

### Anode Heating / Cooling Curve



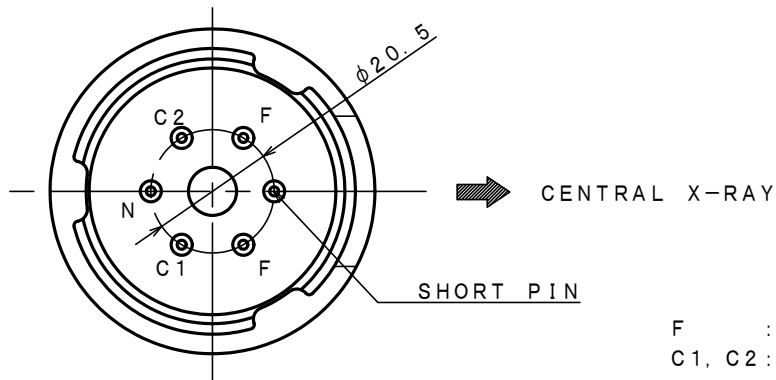
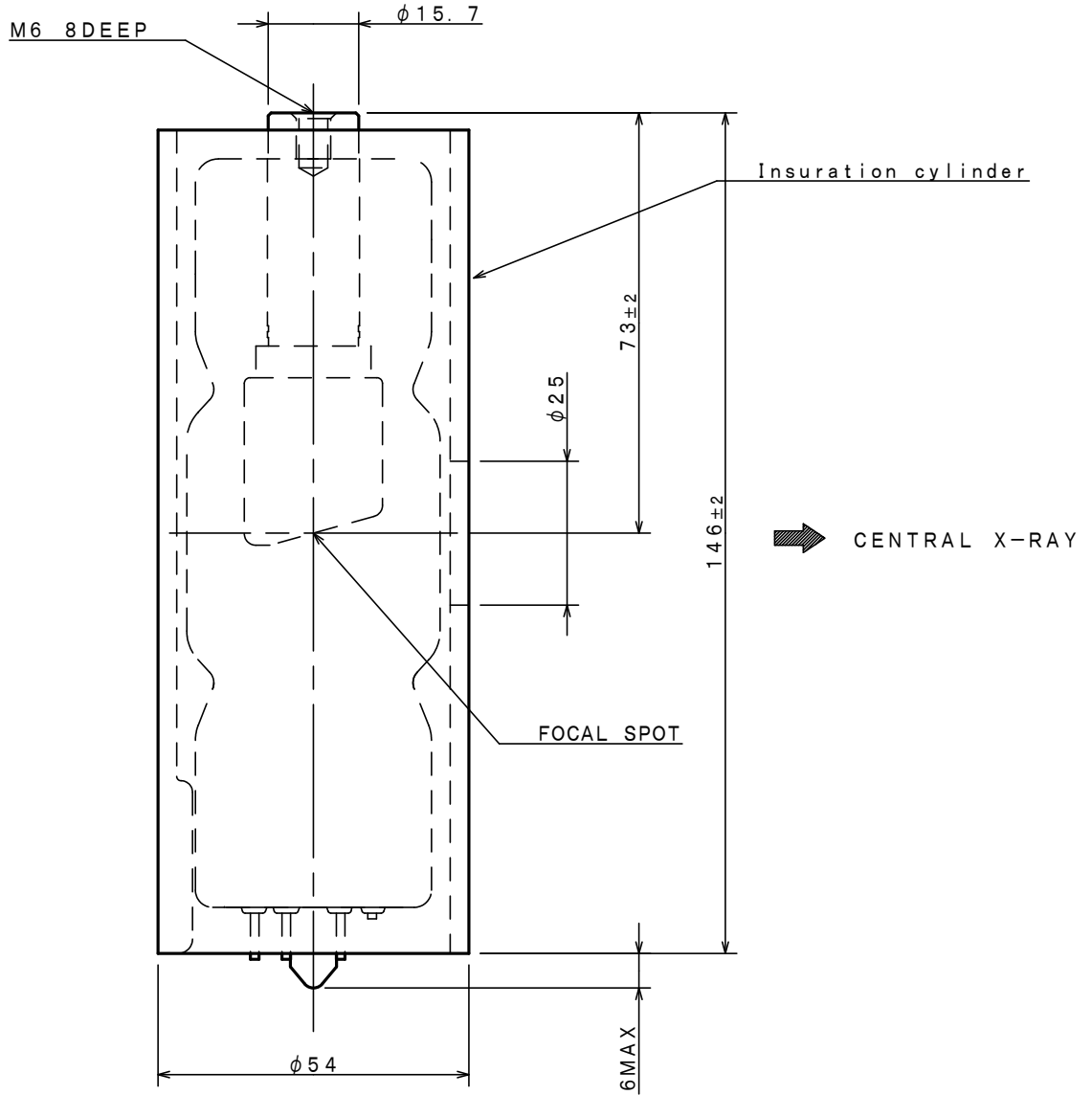
### Dimensional Outline of D-125

Unit: mm



### Dimensional Outline of D-125S

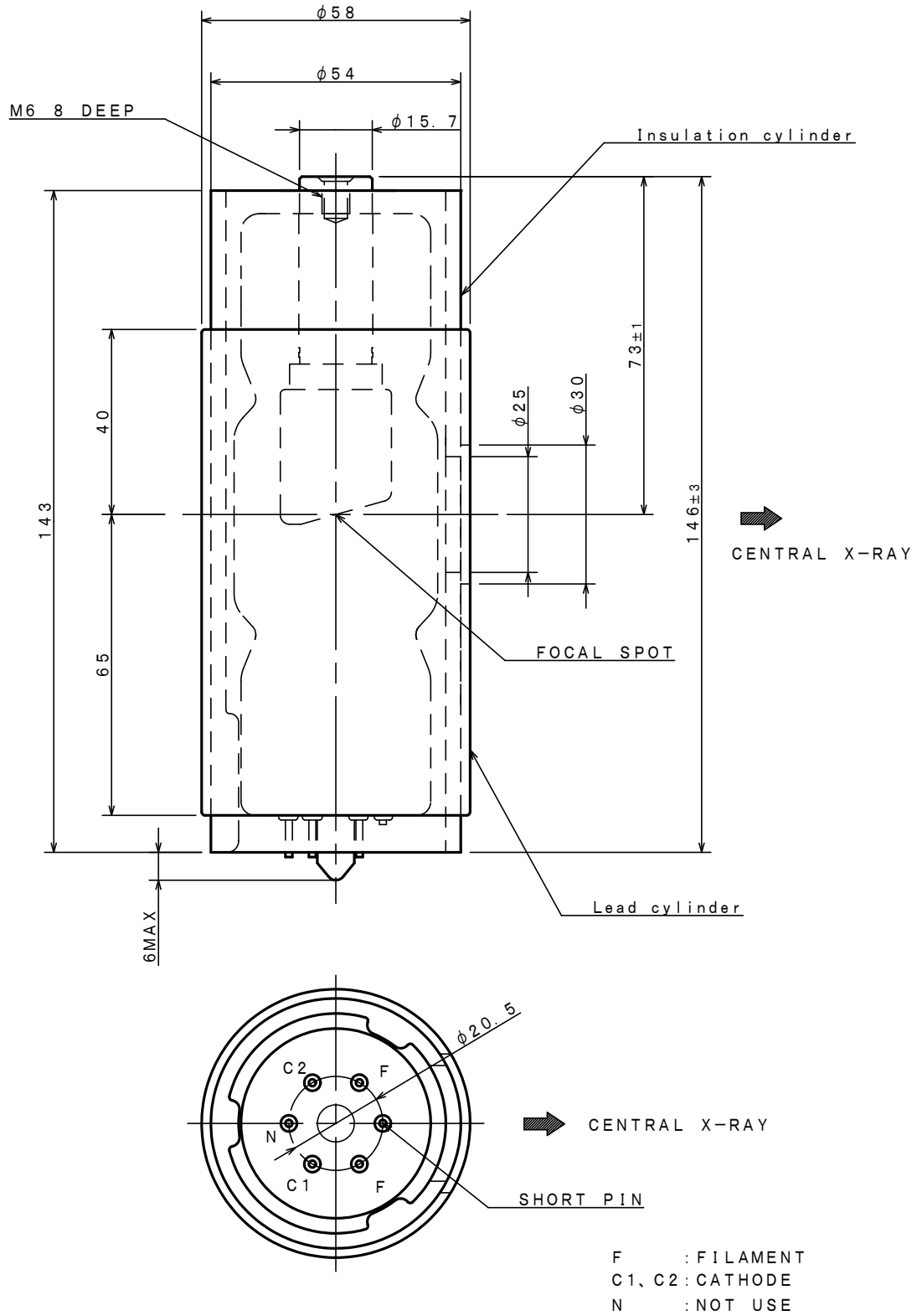
Unit: mm



F : FILAMENT  
 C1, C2 : CATHODE  
 N : NOT FOR USE

### Dimensional Outline of D-125SB

Unit: mm



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·Toshiba Electron Tubes & Devices Co., Ltd. meets the Environmental Management System Standard, ISO14001.

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