

July 15, 1950

WESTINGHOUSE ELECTRIC CORPORATIONX-RAY TUBE DATA SHEET

Electron Tube Type 5602

GENERAL

## Electrical Data

|                        |            |         |
|------------------------|------------|---------|
| Filament current range | 3.5 to 5.5 | Amperes |
| Filament voltage range | 3.5 to 10  | Volts   |

## Mechanical Data

|                                 |             |    |
|---------------------------------|-------------|----|
| Type of cooling                 | Oil         |    |
| Maximum oil temperature         | 200         | °F |
| Focal Spot Sizes (Superimposed) |             |    |
| Projected length                | 2.1 and 4.2 | mm |
| Width                           | 2.1 and 4.2 | mm |
| Outline drawing number          | 5602        |    |
| Mounting position               | Any         |    |

MAXIMUM RATINGS

|                                                           |            |                   |
|-----------------------------------------------------------|------------|-------------------|
| Heat capacity                                             | 150,000    | *Heat units       |
| Continuous rating                                         | 25,000     | Heat units/minute |
| Maximum fluoroscopic rating at a loading of 425 (kv x ma) | Continuous | Minutes           |

|                                                                                       | <u>Full Wave</u> | <u>Half Wave</u> | <u>Self-rectified</u><br><u>Inverse Useful</u> | <u>Units</u> |
|---------------------------------------------------------------------------------------|------------------|------------------|------------------------------------------------|--------------|
| Peak plate voltage                                                                    | 125              | 100              | 100 90                                         | Kilovolts    |
| Value of dc average current at maximum voltage rating for 1/20 second for 2.1 mm spot | 39               | 44               | - 34                                           | Milliamps    |
| Value of dc average current at maximum voltage rating for 1/20 second for 4.2 mm spot | 125              | 149              | - 103                                          | Milliamps.   |

Table of short-time ratings which are given as the product of peak kv useful times dc average milliamperes.

| Time     | 2.1 mm spot size     |                      |                                 | 4.2 mm spot size     |                      |                                 |
|----------|----------------------|----------------------|---------------------------------|----------------------|----------------------|---------------------------------|
|          | 125 KVP<br>Full Wave | 100 KVP<br>Half Wave | 90 KVP Useful<br>Self-rectified | 125 KVP<br>Full Wave | 100 KVP<br>Half Wave | 90 KVP Useful<br>Self-rectified |
| 0.1 Sec. | 4580                 | 4170                 | 2940                            | 13700                | 13000                | 8740                            |
| 1 Sec.   | 3620                 | 3410                 | 2570                            | 8900                 | 9650                 | 6870                            |
| 5 Sec.   | 2950                 | 2875                 | 2310                            | 6090                 | 7300                 | 5560                            |
| 30 Sec.  | 2140                 | 2200                 | 1925                            | 2550                 | 3400                 | 3400                            |

\*Heat units are defined as the product of the peak voltage in kilovolts, dc average current in milliamperes, and the exposure time in seconds, and is proportional to energy.

\*\* Kv x ma is defined as the product of peak kv times dc average ma and is proportional to power.

# WESTINGHOUSE ELECTRIC CORPORATION

## X-RAY TUBE OUTLINES

### TYPES 5599, 5600, 5601, & 5602

