

WESTINGHOUSE ELECTRIC CORPORATION

X-RAY TUBE DATA SHEET

Electron Tube Type 5781

The 5781 tube is a removable insert x-ray tube designed for regular duty service.

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	Air	
Focal spot size		
Projected length	1.5	mm
Width	1.5	mm
Outline drawing number	5781	
Mounting position	Any	

MAXIMUM RATINGS

Heat Capacity	150,000	*Heat units
Continuous rating	12,000	Heat units per minute
Maximum fluoroscopic rating at a loading of 425 (kv x ma)**	10	Minutes

	<u>Full Wave</u>	<u>Half Wave</u>	<u>Self-rectified</u>		<u>Units</u>
			<u>Inverse</u>	<u>Useful</u>	
Peak plate voltage	100	100	100	90	Kilovolts
Value of dc average current at maximum voltage rating for 1/20 second	37	24.5	-	19.5	Milliamps.

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

<u>Time</u>	<u>Full Wave</u>	<u>Half Wave</u>	<u>Self-rectified</u>
0.1 Sec.	3480	2350	1700
1 "	2770	2025	1520
5 "	2270	1800	1400
30 "	1690	1500	1250

\*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.

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