March 18, 1957

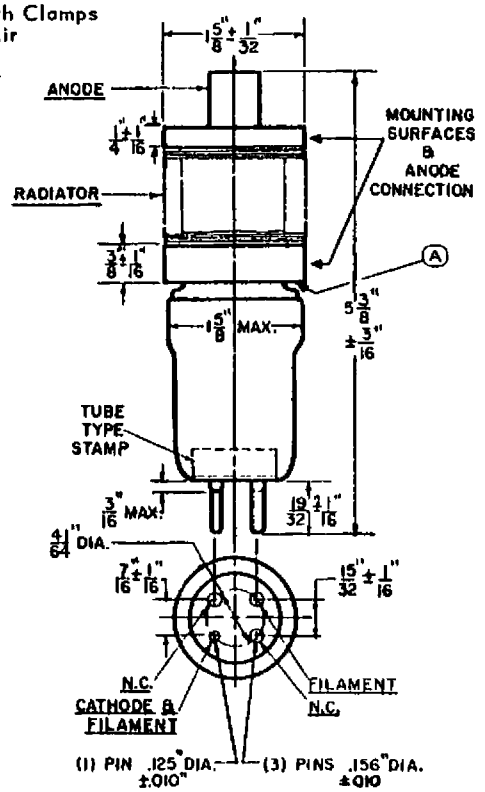
High-Vacuum Rectifier Type WL-6898

The WL-6898 is a forced-air cooled diode designed for service in air-borne radar equipment. This tube performs three distinct functions in radar modulators: a power rectifier to obtain the necessary high DC voltage; a charging-diode to couple the DC power to the pulse-forming network; and a clipper diode to absorb the reflected wave from the output magnetron.

The WL-6898 combines low heater power in a unipotential cathode, small size and light weight with higher maximum ratings than previous designs. This tube also incorporates structural and process features resulting in reliable performance in the adverse environment encountered in air-borne operation.

GENERAL DATA

ELECTRICAL:		
Cathode		Coated Unipotential
Voltage	5.0	Volts
Current	8.0	Amperes
Number of Electrodes	2	
MECHANICAL:		
Outline Dimensions		See Drawing
Mounting		Tube supported by Radiator
Pin Connections		Flexible Leads with Clamps
Cooling ♦		Forced Air
Rate	5	CFM
Static Pressure	0.16	Inch Water
Ambient Temperature	-55 to 100	°C
Altitude		Sea Level
Cathode Heating Time	120	Seconds
Net Weight	7.5	Ounces
Maximum Radiator Temperature ★	160	°C



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MAXIMUM RATINGS
Absolute Maximum Values

As CLIPPER DIODE:			
Peak Inverse Voltage	16000	max.	Volts
Peak Current (Continual) ♟	20	max.	Amperes
Average Current (Continual)	20	max.	Ma.
Peak Current (Intermittent) ⊕	30	max.	Ma.
Average Current (Intermittent) □	80	max.	Amperes
As CHARGING DIODE:			
Peak Inverse Voltage	16000	max.	Volts
Peak Current	600	max.	Ma.
Average Current	200	max.	Ma.
As HALF-WAVE RECTIFIER:			
Peak Inverse Voltage	16000	max.	Volts
Peak Current	630	max.	Ma.
Average Current	200	max.	Ma.

NOTES

♦ An air flow of 5 CFM through the radiator must precede the application of any voltages and must continue until all voltages are removed. The direction of flow must be parallel to the radiator fins.

□ For maximum of 5 seconds

♟ For maximum pulse duration of 5 microseconds.

⊕ For maximum pulse duration of 5 microseconds repeatable during total time interval not to exceed 5 seconds.

★ Measured at point A, on outline drawing, with temperature sensitive paint.

WESTINGHOUSE ELECTRIC CORPORATION, ELECTRONIC TUBE DIVISION, ELMIRA, NEW YORK

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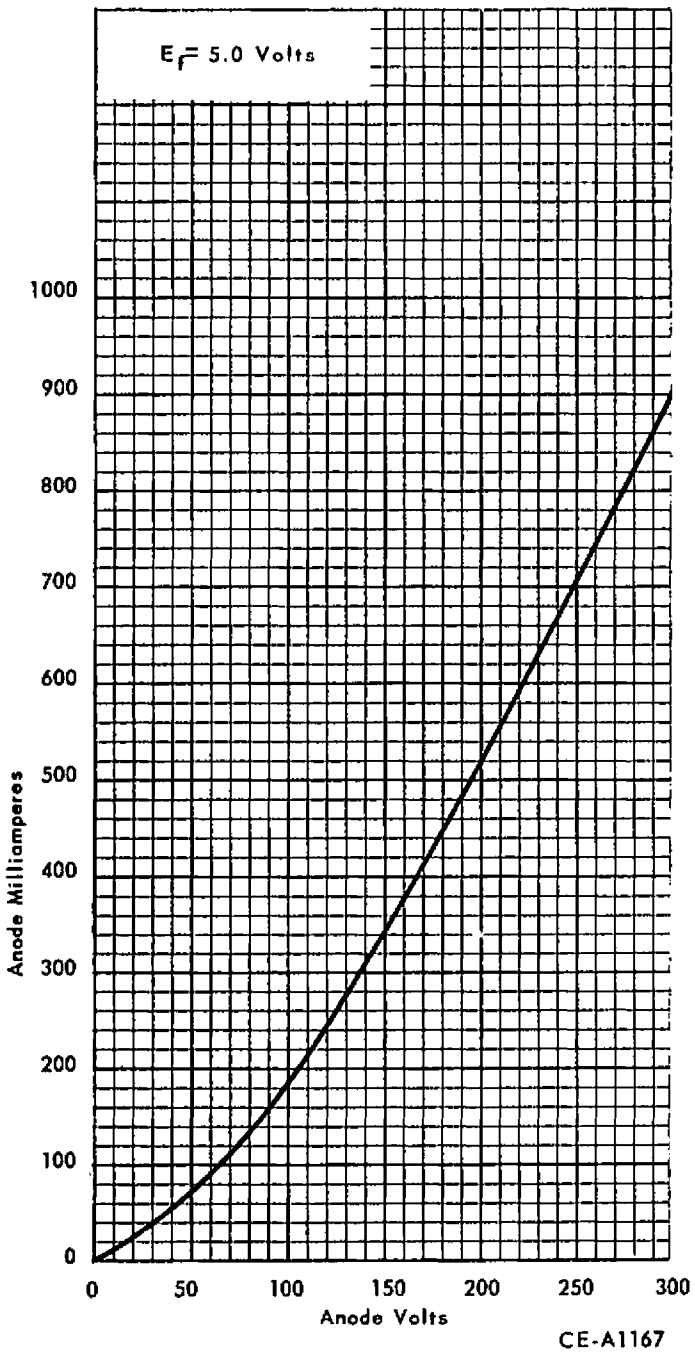
AVERAGE PLATE CHARACTERISTIC



PULSE DIODE CHARACTERISTIC