ADVANCE ELECTRON TUBE DATA SHEET

WESTERN ELECTRIC 5530 ELECTRON TUBE

5530
TRIODE
AIR-COOLED

DESCRIPTION

The Western Electric 5530 is a forced-air-cooled triode designed especially for FM service at frequencies up to 110 megacycles. For other types of services, the tube is also applicable to R-F use within the ratings. The tube is rated at 3 KW plate dissipation at maximum ratings.

The terminal arrangement makes the tube particularly adaptable to grounded-grid applications as the filament leads are isolated from the plate by the external grid flange and internal shielding. Circuit inductance has been kept at a minimum in the grid as well as in all other internal connections. The filament is oriented with respect to the grid structure to minimize the required R-F driving power.

The cathode is a thoriated tungsten filament, generally acknowledged as the most efficient emitter for power tubes of these ratings. The filament structure of these tubes is self-supporting. It employs no sliding contacts, insulators, or tension springs. Rugged connecting rods support the grid structure and provide great mechanical strength as well as low electrical loss. Kovar, an alloy having a temperature expansion coefficient matching that of the glass, is used for glass-to-metal seals. The plate fin structure is designed to provide efficient cooling by a forced air stream generated by a standard type blower unit.

ELECTRICAL DATA - GENERAL

Filament Voltage, A-C	5	volts
Filament Current	55	amperes
Amplification Factor	26	
Grid - Plate Transconductance at E_b = 1.7 kv; I_b = 1.75 amp.	12000	micromhos
Interelectrode Capacitances		
(Tube Shielded as in Grounded-grid Operation)		
Plate - Grid	23.0	μμf
Plate - Filament	0.8	μμf
Grid - Filament	20.0	μμf

MECHANICAL DATA - GENERAL*

Mounting Position	Vertical, plate end down	
Type of Cooling	Forced-air	
Air Flow, Minimum	150	c.f.m.
Pressure Drop, Inches of Water (Total)	1.25	inches
Net Weight, Approximate	9	pounds

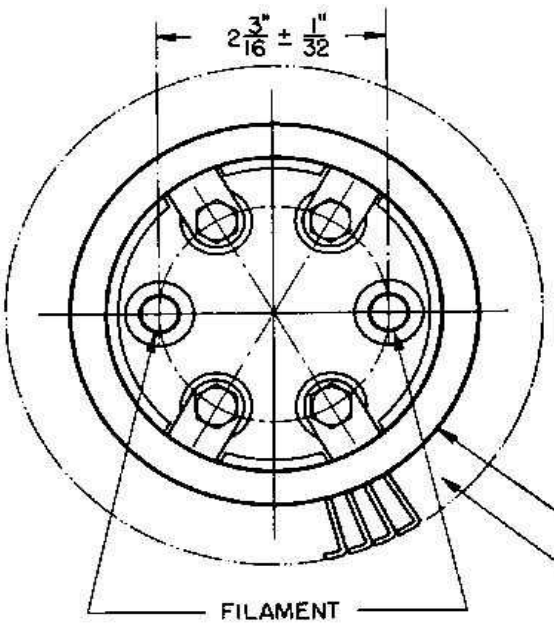
MAXIMUM RATINGS, ABSOLUTE VALUES

(Apply at frequencies up to 110 megacycles)		
D-C Plate Voltage	5000	volts
D-C Plate Current	1.75	amperes
Plate Dissipation	3	kilowatts

*Dimensional outline drawing shown on reverse side of this sheet.

Western Electric

Note 1
On any individual tube, there shall not be more than $\frac{1}{64}$" difference between actual values of the $5\frac{1}{2}$" dimension when measured at maximum and minimum points around the periphery.



Note 2
The tube shall be capable of entering a gauge consisting of two coaxial cylinders; the first 5.145" dia. X $5\frac{5}{8}$" long and the second 3.258" dia X $\frac{31}{64}$" long.