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Electronics Department

G E N E R A L E L E C T R I C

Pliotron 5659--Preliminary Technical Information

The 5659 is a beam power amplifier pentode similar to the 12A6 designed for reliable performance under conditions of severe vibration and intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data

Cathode - Indirectly Heated

Heater Voltage (A-C or D-C)	12.6	Volts
Heater Current	0.150	Ampere

Mechanical Data

Envelope - MT-8
Base - Small Wafer Octal 7-Pin

Maximum Diameter	1 5/16	Inches
Maximum Overall Length	3 1/4	Inches
Maximum Seated Height	2 1/16	Inches

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Design Center		
Plate Voltage	250	Volts
Screen Voltage	250	Volts
Plate Dissipation	7.5	Watts
Screen Dissipation	1.5	Watts
Typical Operation		
Class A_1 Amplifier		
Heater Voltage	12.6	Volts
Plate Voltage	250	Volts
Screen Voltage	250	Volts
Grid Voltage**	-12.5	Volts
Peak A-F Signal Voltage	12.5	Volts
Transconductance	3000	Micromhos
Plate Resistance, approximate	70000	Ohms
Zero Signal Plate Current	30	Milliamperes
Zero Signal Screen Current, Nominal	3.5	Milliamperes
Maximum-Signal Plate Current	32	Milliamperes
Maximum-Signal Screen Current, Nominal	5.5	Milliamperes
Load Resistance	7500	Ohms
Total Harmonic Distortion	7	Per Cent
Power Output	3.4	Watts
Vibration Output, maximum***	25	Millivolts

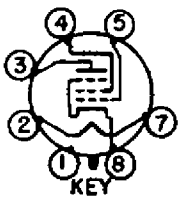
** The D-C resistance in the grid circuit, under rated maximum conditions, should not exceed 0.5 megohm for self-bias operation and 0.1 megohm for fixed bias operation.

*** RMS voltage measured across a load resistor of 2,000 ohms when tube is vibrated with a total sinusoidal motion of .08 inches at 25 cycles per second. Grid voltage = -22 volts. Average output is less than value shown.

TERMINAL CONNECTIONS

Pin 1 - Shell
Pin 2 - Heater
Pin 3 - Plate
Pin 4 - Grid #2
Pin 5 - Grid #1
Pin 7 - Heater
Pin 8 - Cathode and beam plates

BASING DIAGRAM



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