



IC6



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PENTAGRID CONVERTER

Filament	Coated	
Voltage	2.0	d-c volts
Current	0.12	amp.

Direct Interelectrode Capacitances:

Grid #4 to Plate	0.30*	μuf
Grid #4 to Grid #2	0.30*	μuf
Grid #4 to Grid #1	0.15*	μuf
Grid #1 to Grid #2	1.5	μuf
Grid #4 to All Other Electrodes (R-F Input)	10	μuf
Grid #2 to All Other Electrodes (Osc. Output)	6	μuf
Grid #1 to All Other Electrodes (Osc. Input)	6	μuf
Plate to All Other Electrodes (Mixer Output)	10	μuf

Overall Length 4-9/32" to 4-17/32"

Maximum Diameter 1-9/16"

Bulb ST-12

Cap Small Metal

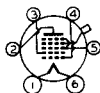
Base Small 6-Pin

Pin 1 - Filament +

Pin 2 - Plate

Pin 3 - Grid #2

Pin 4 - Grid #1



Pin 5 - Grids #3 & #5

Pin 6 - Filament -

Cap - Grid #4

Mounting Position

BOTTOM VIEW (6L)

Vertical[◇]CONVERTER SERVICE

Plate Voltage 180 max. volts

Screen (Grids #3 & #5) Voltage 67.5 max. volts

Screen Supply Voltage 180 max. volts

Anode-Grid (Grid #2) Voltage 135 max. volts

Anode-Grid Supply Voltage 180 max. volts

Control-Grid (Grid #4) Voltage 0 min. volts

Plate Dissipation 0.3 max. watt

Screen Dissipation 0.2 max. watt

Anode-Grid Dissipation 0.4 max. watt

Total Cathode Current 9 max. ma.

Typical Operation:

Filament	2.0	2.0	d-c volts
Plate	135	180	volts
Screen	67.5	67.5	volts
Anode-Grid Supply	135 [▲]	180 [▲]	volts
Control Grid	-3	-3	volts
Osc.-Grid (Grid #1) Resistor	50000	50000	ohms
Plate Res. (approx.)	0.6	0.7	megohm
Conversion Transcond.	300	325	μmhos
Convers. Transcond. (approx.) with grid #4 bias of -14 volts	4	4	μmhos
Plate Cur.	1.3	1.5	ma.
Screen Cur.	2.5	2.0	ma.
Anode-Grid Cur.	3.1	4.0	ma.
Oscillator-Grid Cur.	0.2	0.2	ma.
Total Cathode Cur.	7.1	7.7	ma.

NOTE: The transconductance of the oscillator portion (not oscillating) is 1050 micromhos under the following conditions: plate volts, 180; screen volts, 67.5; anode-grid volts, 135; and oscillator-grid volts, 0.

* With shield-can connected to negative filament terminal.

◇ Horizontal operation permitted if pins 1 and 6 are in vertical plane.

▲ Applied through properly by-passed 20000-ohm voltage-dropping resistor.

A Typical Pentagrid Converter Circuit is shown under Type 1A6.



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OPERATION CHARACTERISTICS

$E_f = 2.0$ VOLTS D.C.

SCREEN (GRIDS $N_{\pm 3}$ & $N_{\pm 5}$) VOLTS = 67.5

OSCILLATOR GRID (GRID $N_{\pm 1}$) RESISTOR-OHMS = 50000

OSCILLATOR GRID CURRENT-MILLIAMPERES = 0.2

CURVE | PLATE VOLTS | ANODE-GRID (GRID $N_{\pm 2}$) SUPPLY VOLTS*

--- 135
— 180

135
180

*APPLIED THROUGH 20000-OHM DROPPING RESISTOR

