



IC6



IC6

PENTAGRID CONVERTER

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

Direct Interelectrode Capacitances:

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

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

Maximum Diameter 1-9/16"

Bulb ST-12

Cap Small Metal

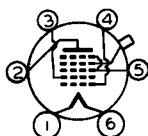
Base Small 6-Pin

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 $\diamond$ 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 Δ	180 Δ	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
Converts. 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.

$\diamond$ Horizontal operation permitted if pins 1 and 6 are in vertical plane.

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

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



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 | 135

— | 180 | 180

*APPLIED THROUGH 20000-OHM DROPPING RESISTOR

