



## POWER AMPLIFIER PENTODE

<del></del>		
Filament	Coated	
Voltage	1.4	d-c volts
Current	0.05	amp.
Maximum Overall Leng	th	2-25/32"
Maximum Seated Heigh	t	2-1/4"
Maximum Diameter		1_3/16"
8u1b		T <b>-</b> 9
Base	<b>@_</b> ©	Lock-in 8-Pin
Pin 1 - Filament +	3(7)	Pin 5-No Connection
Pin 2-Plate	1/1111/1	Pin 6 - Grid
Pin 3 - Screen		Pin 7 - No Connection
Pin 4 - No Connection	on ①yo	Pin 8 - Filament -
Mounting Position	es .	Any
9	BOTTOM VIEW (5AD <sub>1</sub> )	,
For curve and additiona the 1A5GT	l data, refer to Type 1 /145G are identical el	A5GT/1A5G. The 1LA4 and ectrically.

## ILA6 PENTAGRID CONVERTER



Filament		Coated			
Voltage		1.4		d-c	volts
Current		0.05			amp.
Direct Int	erelectrode:	e Capacitances: <sup>0</sup>			
Grid #4	to Plate			0.4	μμf
Grid #4	to Grid #2			0.3	μμf
Grid #4	to Grid #1			0.15	μμf
Grid #1	to Grid #2			0.6	
Grid #4	to All Othe	er Electrodes (R-F	Input)	7.7	uµf
		er Electrodes			
Except	Grid #1 (C	osc. Output)		3.3	µµf
Grid #1	to All Othe	er Electrodes			
Except	: Grid #2 (C	osc. Input)		2.9	uuf
Plate to	All Other	Electrodes (Mixer	Output)	8.0	uuf
Maximum Ov	verall Lengt	:h	, ,		5/32"
Maximum Se	eated Height			2-	1/4"
Maximum Di	ameter			1_	3/16"
Bulb					T9
Base		<b>a</b> s	Lo	ck-in	8-Pin
	ilament +		Pin 5-Gr		
Pin 2 - F	'late		Pin 6-Gr		
Pin 3 - 0	rid #2	Ø\₩ <i>\</i> D	Pin 7 - No	Conne	ction
Pin 4 - G	irid #1	() <del>(</del> (6)	Pin 8-Fi	lament	_
Mounting P	osition	95 /= 1			Any
		BOTTOM VIEW (7AK)			
O With close	-fitting shie	ld connected to negat	ive filament	termin	a1.

(continued on next page)





## PENTAGRID CONVERTER

(continued from preceding pa CONVERTER SERVICE	ige)		
Plate Voltage	90	max.	volts
Screen (Grids #3 & #5) Voltage▲	55	max.	volts
Screen Supply Voltage	90	max.	volts
Anode-Grid (Grid #2) Voltage	90	max.	volts
Total Zero-Sig. Cathode Current	3	max.	ma.
Typical Operation and Characteristics:			
Plate	90		volts
Screen	45		volts
Anode-Grid	90		volts
Control-Grid (Grid #4)▲▲	0		volts
Oscillator-Grid (Grid #1) Resistor	200000		ohms
Plate Res.	0.75	approx.	ohms
Conversion Transcond.	250		µmhos
Conversion Transcond. with Grid #4			
Bias of -3 volts	10	approx.	umhos
Plate Cur.	0.55		ma.
Screen Cur.	0.6		ma.
Anode-Grid Cur.	1.2		ma.
Oscillator-Grid Cur.	0.035		ma.
Total Cathode Cur.	2.4		ma.

NOTE: The transconductance of the oscillator portion (not oscillating) is approximately 550 µmhos, and the anode grid current 2.2 ma. under the following conditions: plate volts, 90; screen volts, 45; control-grid volts, 0; anode-grid volts, 90; and oscillator-grid volts, 90.

Obtained preferably by using a properly by-passed 45000 to 75000-ohm voltage-dropping resistor in series with a 90-volt supply.
 A resistance of at least 1.0 megohm should be in the grid return to negative filament pin.

A Typical Pentagrid Circuit is shown under Type 146.