

1A7-GT

Description and Rating

PENTAGRID CONVERTER

GENERAL DESCRIPTION

Principal Application: The 1A7-GT is a filament type pentagrid converter designed for service as

a combined mixer and oscillator tube in low drain battery operated equipment.

Cathode: Coated Filament
 Filament Voltage (D-C) 1.4 Volts
 Filament Current 0.05 Ampere
 Envelope: T-9 Glass
 Base: BB-26 Small Wafer Octal 8-Pin
 Base Material: Phenolic with Metal Sleeve
 Top Cap: CI-3 Skirted Miniature
 Mounting Position: Any

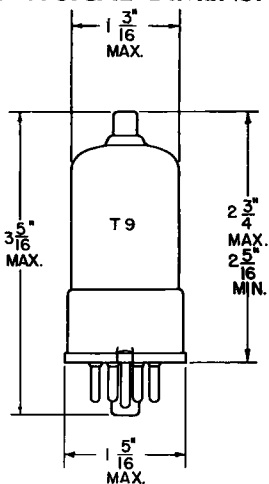
Direct Interelectrode Capacitances: *

Grid Number 4 to Plate (Max)	0.5	μμf
Grid Number 4 to Grid Number 2 (Max)	0.4	μμf
Grid Number 4 to Grid Number 1 (Max)	0.2	μμf
Grid Number 1 to Grid Number 2	0.9	μμf
Grid Number 1 to All Except Number 2	3.4	μμf
Grid Number 4 to All	7.0	μμf
Grid Number 2 to All Except Number 1	4.4	μμf
Plate to All	10	μμf

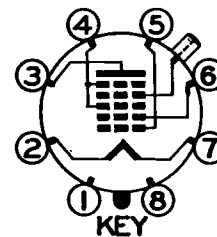
PHYSICAL DIMENSIONS

TERMINAL CONNECTIONS

BASING DIAGRAM



- Pin 1 - Metal Base Sleeve
- Pin 2 - Positive Filament
- Pin 3 - Plate
- Pin 4 - Grids Number 3 and Number 5
- Pin 5 - Grid Number 1
- Pin 6 - Grid Number 2
- Pin 7 - Negative Filament
- Pin 8 - No Connection
- Top Cap - Grid Number 4



RMA 7Z
BOTTOM VIEW

RMA 9-18

MAXIMUM RATINGS

	Design Center	Absolute	
Plate Voltage	110	120	Volts
Screen (Grids Number 3 and Number 5) Voltage #	60	65	Volts
Screen Supply Voltage	110	120	Volts
Anode-Grid (Grid Number 2) Voltage	110	120	Volts
Zero-Signal Cathode Current	4.0	4.4	Milliamperes

* Measured with close fitting external shield connected to negative filament.

Obtained preferably by using properly by-passed voltage-dropping resistor in series with the B-supply voltage.

CHARACTERISTICS AND TYPICAL OPERATION

CONVERTER SERVICE

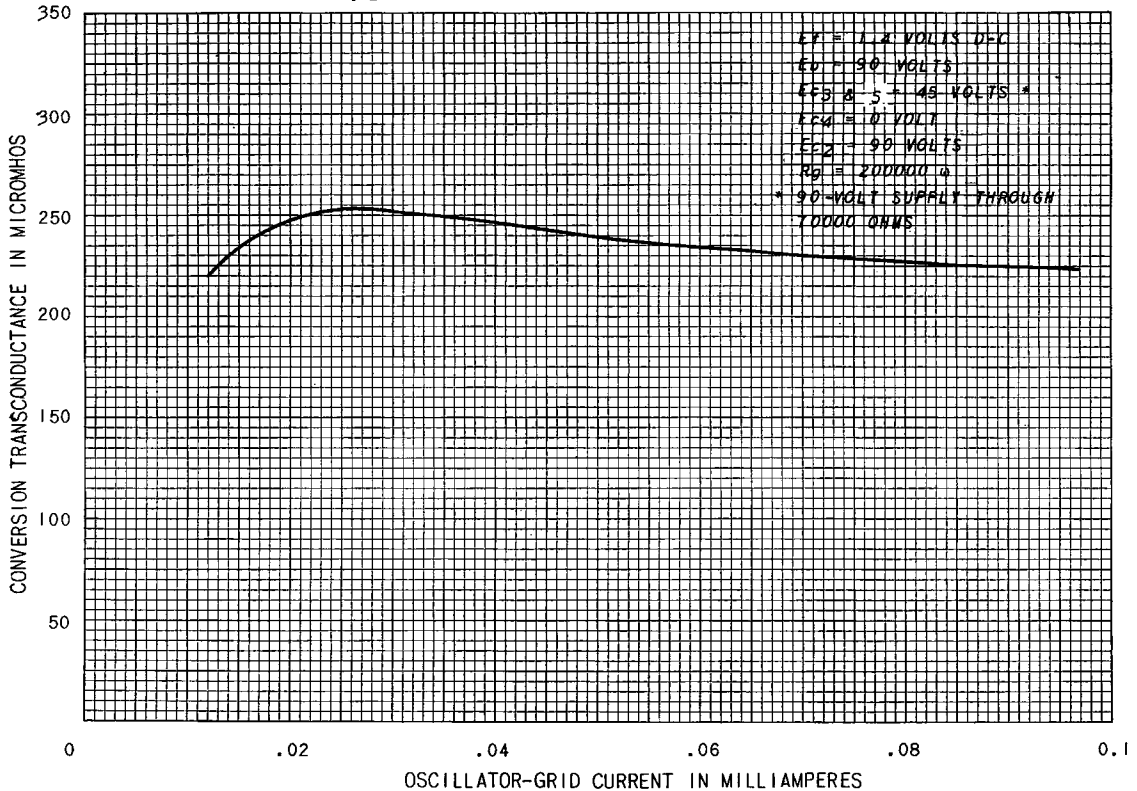
Filament Voltage (D-C)	1.4	Volts
Plate Voltage	90	Volts
Screen (Grids Number 3 and Number 5) Voltage #	45	Volts
Anode-Grid (Grid Number 2) Voltage	90	Volts
Control-Grid (Grid Number 4) Bias Voltage §	0	Volt
Oscillator-Grid (Grid Number 1) Resistor	200000	Ohms
Plate Resistance	0.6	Megohm
Conversion Transconductance	250	Micromhos
Conversion Transconductance at $E_{c4} = -2$ Volts	90	Micromhos
Conversion Transconductance at $E_{c4} = -3$ Volts (Approx)	20	Micromhos
Oscillator-Grid Current	0.035	Milliampere
Plate Current	0.6	Milliampere
Screen Current	0.7	Milliampere
Anode-Grid Current	1.2	Milliamperes
Total Cathode Current	2.5	Milliamperes
Oscillator Transconductance ^o	550	Micromhos
Oscillator Amplification Factor ^o	40	
Oscillator-Anode Current ^o	2.2	Milliamperes

^o Approximate values measured under following non-oscillating conditions: Plate voltage and oscillator-anode voltage = 90 volts; screen voltage = 45 volts; control-grid voltage and oscillator-grid voltage = 0 volts.

§ A resistance of at least 1.0 megohm should be used in the control-grid return to negative filament terminal.

Obtained preferably by using properly by-passed voltage-dropping resistor in series with the B-supply voltage.

OPERATION CHARACTERISTICS



TUBE DEPARTMENT



Schenectady 5, N. Y.