

TRIODE & FRAME-GRID PENTODE CONVERTER TYPES 4GX7, 5GX7, 6GX7 AND 8GX7

The 4GX7, 5GX7, 6GX7 and 8GX7 are medium-mu triode and sharp-cutoff frame-grid pentode types designed for oscillator-mixer service in V.H.F. television tuners. The pentode section features high transconductance and low grid 1-to-plate capacitance to ensure high gain with good stability in amplifier operation.

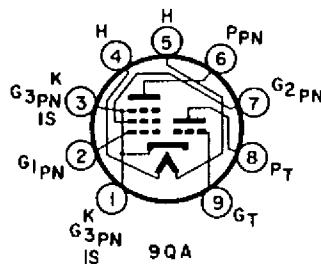
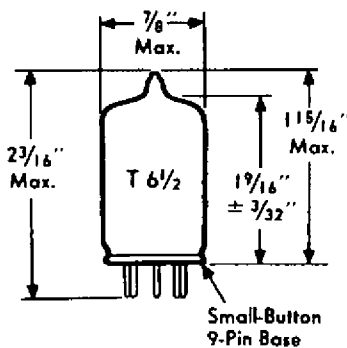
The 4GX7, 5GX7 and 8GX7 feature controlled heater warm-up time and render reliable service in properly designed series heater circuits.

ELECTRICAL

Cathodes	Coated Unipotential			
Heater:	4GX7	5GX7	6GX7	8GX7
Voltage	4.2	5.6	6.3	7.7
Current	0.60	0.45	0.40	0.30
Warm-Up Time (Note 1)	11	11	-	11
Direct Interelectrode Capacitances: Shielded (Note 2)				
Triode:				
Grid to Plate	1.2 pf			
Input	2.3 pf			
Output	1.9 pf			
Pentode:				
Grid 1 to Plate	0.005 pf			
Input	5.40 pf			
Output	3.30 pf			
Grid 1 to Grid 2	1.6 pf			

MECHANICAL

Bulb	T-6½
Base	Miniature 9-Pin (JEDEC E9-1)
Outline	6-2
Basing	9QA
Mounting Position	Any



RATINGS

Design Maximum Values

	Triode	Pentode		
Plate Voltage	275	275	max.	Volts
Grid 2 Supply Voltage	-	275	max.	Volts
Grid 2 Voltage	-	-	See Grid 2 Input Rating Curve	
Plate Dissipation	1.5	2.2	max.	Watts
Grid 2 Dissipation	-	0.45	max.	Watts
Positive Grid 1 Voltage	0	0	max.	Volts
Negative Grid 1 Voltage	40	40	max.	Volts
Cathode Current	20	20	max.	Ma.
Grid 1 Circuit Resistance				
Fixed Bias	0.5	0.25	max.	Megohm
Cathode Resistor Bias	1.0	0.5	max.	Megohm
Heater-Cathode Voltage:				
Heater Negative with Respect to Cathode				
Total DC + Peak	200	200	max.	Volts
Heater Positive with Respect to Cathode				
DC Component	100	100	max.	Volts
Total DC + Peak	200	200	max.	Volts

CHARACTERISTICS AND TYPICAL OPERATION

Triode Unit:

Plate Voltage	100	125	Volts
Grid Voltage	-	-1.0	Volts
Grid Circuit Resistance	0.1	-	Megohm
Amplification Factor	-	40	-
Plate Resistance	-	4700	Ohms
Transconductance	.8700	8500	μmhos
Plate Current	12.5	13	Ma.
Grid Cutoff Voltage (Note 3)	-6.0	-	Volts

Pentode Unit:

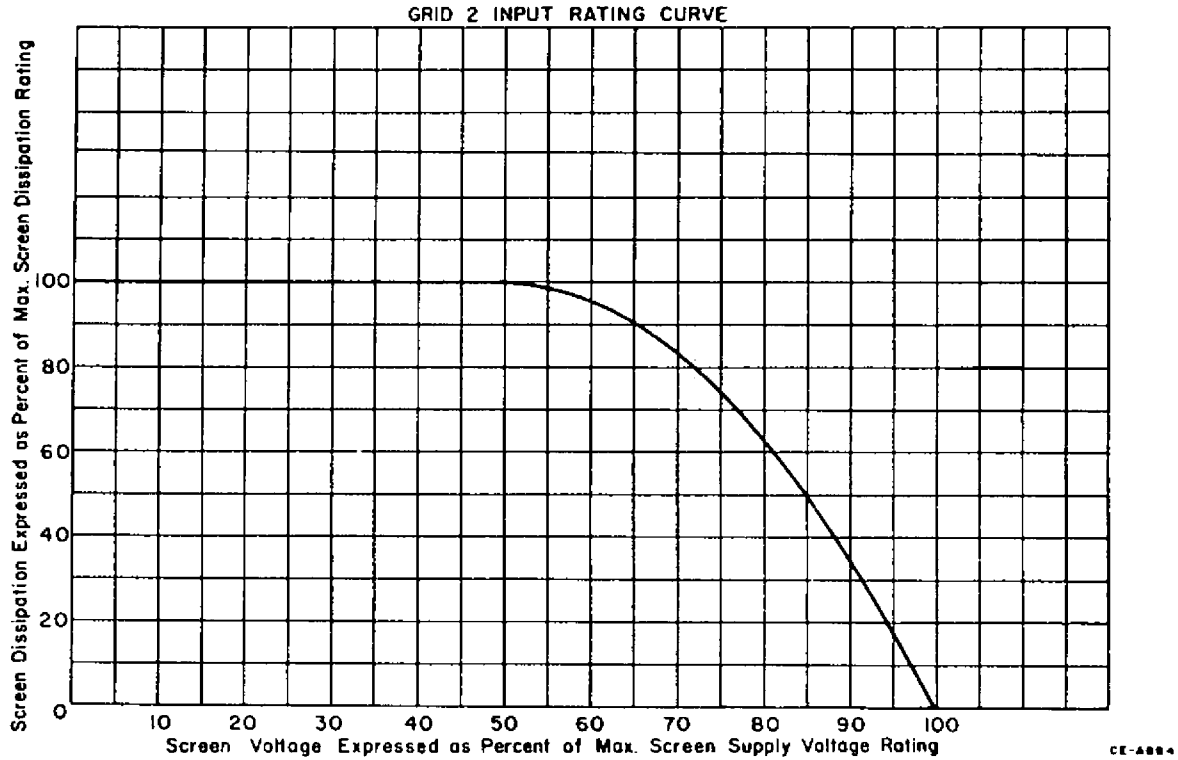
Plate Voltage	120	125	Volts
Grid 2 Voltage	90	125	Volts
Grid 1 Voltage	-	-1.0	Volts
Grid 1 Circuit Resistance	0.1	-	Megohms
Plate Resistance	-	200000	Ohms
Transconductance	13000	11000	μmhos
Plate Current	8.5	8.0	Ma.
Grid 2 Current	2.8	2.5	Ma.
Grid 1 Cutoff Voltage (Note 3)	-2.5	-	Volts

NOTES

1. Heater Warm-Up Time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. With external shield connected to cathode.
3. For a plate current of 20 microamperes.

4GX7
5GX7
6GX7
8GX7

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