

TECHNICAL DATA

ARCTURUS

TYPE 12K7GT MIDGET

REMOTE CUT-OFF PENTODE AMPLIFIER

Heater Voltage
Heater Current

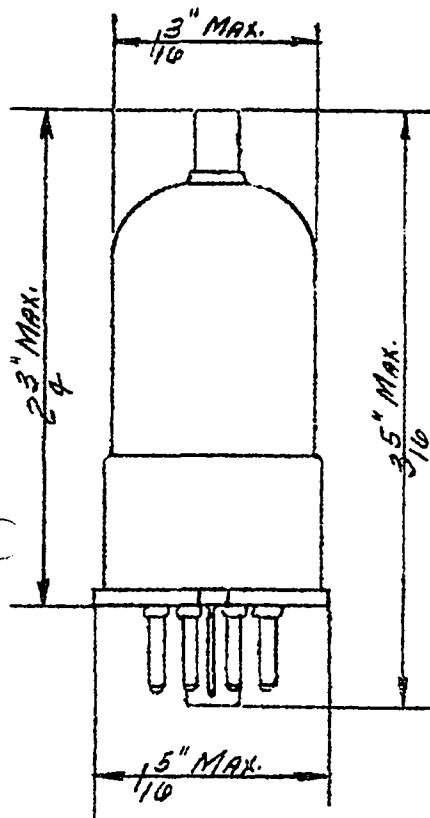
12.5 Volts
.150 Amperes

OPERATING CHARACTERISTICS

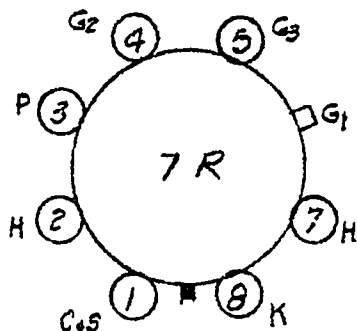
Plate Voltage	100	250	Volts
Screen Grid Voltage	100	100	Volts
Control Grid Voltage	-3	-3	Volts
Plate Current	6.5	7.0	ma.
Screen Grid Current	1.6	1.7	ma.
Plate Resistance	250,000	800,000	Ohms
Transconductance	1325	1450	Microhmhos
Amplification Factor	350	1150	
Control Grid Voltage for transconductance = 2 umhos.	-38.5	-42.5	Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid to plate	.005 uuf(max)
Input	4.0 uuf
Output	9.0 uuf



PIN ARRANGEMENT



BOTTOM VIEW

APPLICATION

Type 12K7GT is one of a new line of tubes designed primarily for series heater operation in AC-DC receivers. Through the use of a small resistance connected in series with the heaters the need for plug-in resistors or line cords is eliminated. Only half the heater power for the entire receiver is required compared to designs using .3 ampere types.

1-5-39

JEDEC DATA
JOINT ELECTRON TUBE ENGINEERING COUNCIL
COMMITTEE ON RECEIVING TUBES

Release No. 156A
J5-12K7GT
Page 1
January 29, 1952

JEDEC TYPE 12K7GT

PENTODE

E. I. A.
REGISTRATION
FILE

MECHANICAL DATA

Coated unipotential cathode	
Outline drawing.	9-18
Base	B7-27, small wafer octal 7-pin, metal sleeve
Top cap...	C1-3, skirted miniature
Maximum diameter	.1-5/16"
Maximum overall length	.3-5/16"
Maximum seated height.	2-3/4"
Pin connections.	Basing 7R
Pin 1 - Base sleeve	Pin 5 - Grid #3
Pin 2 - Heater	Pin 7 - Heater
Pin 3 - Plate	Pin 8 - Cathode, internal shield
Pin 4 - Grid #2	Top cap - Grid #1
Mounting position.	any

ELECTRICAL DATA

Direct Interelectrode Capacitances*

Grid to plate: (g1 to p) max.	.005	μf
Input: g1 to (h+k+g2+g3+B.S.+i.s.)	4.6	μf
Output: p to (h+k+g2+g3+B.S.+i.s.)	12	μf

*External shield #308 connected to pin #8.

Ratings

Heater voltage	12.6	volts
Maximum plate voltage.	300	volts
Maximum grid #2 voltage.	See J5-C4	
Maximum grid #2 supply voltage	300	volts
Maximum positive dc grid #1 voltage.	0	volts
Maximum plate dissipation.	2.75	watts
Maximum grid #2 dissipation.	0.35	watt
Maximum heater-cathode voltage	90	volts

Continued on Page 2

ELECTRICAL DATA (Continued)Typical Operating Conditions and Characteristics, Class A1 Amplifier

Heater voltage	12.6	12.6	12.6	volts
Heater current	150	150	150	ma
Plate voltage	100	250	250	volts
Grid #2 voltage	100	100	125	volts
Grid #1 voltage	-1	-3	-3	volts
Grid #3 voltage	Pin #5 connected to Pin #8 at socket			
Plate resistance (approx.)	0.15	0.8	0.6	megohm
Transconductance	1650	1450	1650	μ mhos
Plate current	9.5	7.0	10.5	ma
Grid #2 current	2.7	1.7	2.6	ma
Grid #1 voltage (approx.) for $G_m = 2 \mu$ mhos	-38	-42	-52	volts

Refer to "Interpretation of Receiving Tube Ratings"