

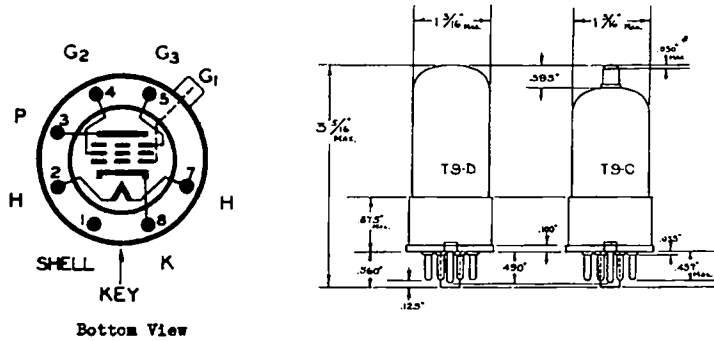


GENERAL DESCRIPTION

Application: The Hytron 6K7-GT is a cathode type super-control pentode primarily designed for amplifier service in radio or intermediate frequency circuits. It may also be used as a mixer tube in superheterodyne circuits. An internal shield is connected to cathode within the tube.

The Hytron 6K7GT is a glass tube equipped with a small octal base and may be used interchangeably with the Hytron 6K7G glass tube.

Physical Characteristics: Bulb T-9C



RATING AND CHARACTERISTICS

Heater:
 Voltage 6.3 Volts AC or DC
 Current 0.3 Ampere

Note: Voltage between heater and cathode should be kept at a minimum if direct connection is not possible.

AMPLIFIER OPERATION (CLASS A)

Plate Voltage	90	180	250	250 Max.	Volts
Screen Voltage	90	75	100	125 Max.	Volts
Grid Voltage	-3	-3	-3	-3 Min.	Volts
Suppressor			Connected to Cathode at Socket		
Plate Current	5.4	4.0	7.0	10.5	Milliamperes
Screen Current	1.3	1.0	1.7	2.6	Milliamperes
Plate Resistance	0.315	1.0	0.8	0.6	Megohm
Amplification Factor	400	1100	1160	990	
Mutual Conductance	1275	1100	1450	1650	Micromhos
*Grid Voltage	-38.5	-32.5	-42.5	-52.5	Volts

* Mutual Conductance = 2 Micromhos.

MIXER OPERATION (VARIABLE BIAS)

Plate Voltage 250 Max. Volts
 Screen Voltage 100 Volts
 Grid Voltage -10 Approx. Volts
 Suppressor Connected to Cathode at Socket.
 Values shown are optimum. Grid voltage is minimum for 7 volts peak oscillator voltage.

Direct Interelectrode Capacitances:

°Grid No. 1 to Plate	0.007	µf. Max.
Grid No. 1 to all other electrodes	4.5	µf.
Plate to all other electrodes	11.0	µf.

°With shield can.

from RMA release #134, April 11, 1938

Note: For characteristic curves refer to the type 6K7G



JETEC DATA
 JOINT ELECTRON TUBE ENGINEERING COUNCIL
 COMMITTEE ON RECEIVING TUBES

134A
 J5-6K7GT
 October 4, 1948

JETEC TYPE 6K7GT

PENTODE



MECHANICAL DATA

Coated unipotential cathode
 Outline drawing 9-18 Bulb T-9
 Base B7-27 small wafer octal 7-pin, metal sleeve
 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 7-R

Pin 1 - Base sleeve	Pin 5 - Grid #3
Pin 2 - Heater	Pin 7 - Heater
Pin 3 - Plate	Pin 8 - Cathode, shield
Pin 4 - Grid #2	Cap - Grid #1

Mounting position any

ELECTRICAL DATA

Direct Interelectrode Capacitances*

Grid to plate: g1 to p (max.)	0.005	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

*Pin 1 and external shield #308 connected to pin 8

Ratings

Heater voltage (ac or dc)	6.3	volts
Maximum plate voltage	300	volts
Maximum grid #2 supply voltage	300	volts
Maximum grid #2 voltage	See J5-C4	
Maximum heater-cathode voltage	90	volts
Maximum plate dissipation	2.75	watts
Maximum grid #2 dissipation	0.35	watts
Maximum positive d-c grid #1 voltage	0	volts

Typical Operating Conditions and Characteristics

Heater voltage (ac or dc)	6.3	6.3	6.3	volts
Heater current	300	300	300	ma
Plate voltage	100	250	250	volts
Grid #3 voltage	Pin #5 connected to pin #8 at socket			
Grid #2 voltage	100	100	125	volts
Grid #1 voltage	-1	-3	-3	volts
Plate resistance (approx.)	0.15	0.8	0.6	megohm
Transconductance	1650	1450	1650	μmhos
Plate current	9.5	7.0	10.5	ma
Grid #2 current	2.7	1.7	2.6	ma
Grid #1 voltage for gm = 2 μmhos (approx.)	-38.5	-42.5	-52.5	volts

Refer to "Interpretation of Receiving Tube Ratings"