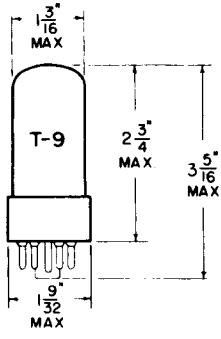
**TUNG-SOL**

## BEAM PENTODE

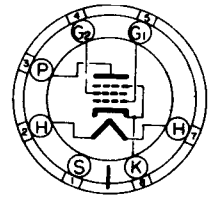



**GLASS BULB**

COATED UNIPOTENTIAL CATHODE

HEATER
12.6 VOLTS 0.6 AMP.
AC OR DC

ANY MOUNTING POSITION




**BOTTOM VIEW**
SMALL WAFER
7 PIN OCTAL
7S

THE 12L6GT IS A BEAM PENTODE DESIGNED FOR SERVICE IN 600 MA. SERIES HEATER OPERATED RECEIVERS. IT DELIVERS A HIGH POWER OUTPUT WITH HIGH POWER SENSITIVITY FROM LOW SUPPLY VOLTAGES. THERMAL CHARACTERISTICS OF THE HEATER HAVE BEEN CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. EXCEPT FOR HEATER RATINGS, ITS CHARACTERISTICS ARE IDENTICAL TO THE 25L6GT.

### RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

| | | |
|---|---|---|
| HEATER VOLTAGE | 12.6 | VOLTS |
| → MAXIMUM PEAK HEATER-CATHODE VOLTAGE: | | |
| HEATER NEGATIVE WITH RESPECT TO CATHODE | | |
| TOTAL DC AND PEAK | 300 | VOLTS |
| HEATER POSITIVE WITH RESPECT TO CATHODE | | |
| DC | 100 | VOLTS |
| TOTAL DC AND PEAK | 200 | VOLTS |
| MAXIMUM PLATE VOLTAGE | 200 | VOLTS |
| MAXIMUM GRID #2 VOLTAGE | 125 | VOLTS |
| MAXIMUM PLATE DISSIPATION | 10 | WATTS |
| MAXIMUM GRID #2 DISSIPATION | 1.25 | WATTS |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE (FIXED BIAS) | 0.1 | MEGOHMS |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE (SELF BIAS) | 0.5 | MEGOHMS |
| HEATER WARM-UP TIME (APPROX.)* | 11.0 | SECONDS |

### TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS $A_1$ AMPLIFIER

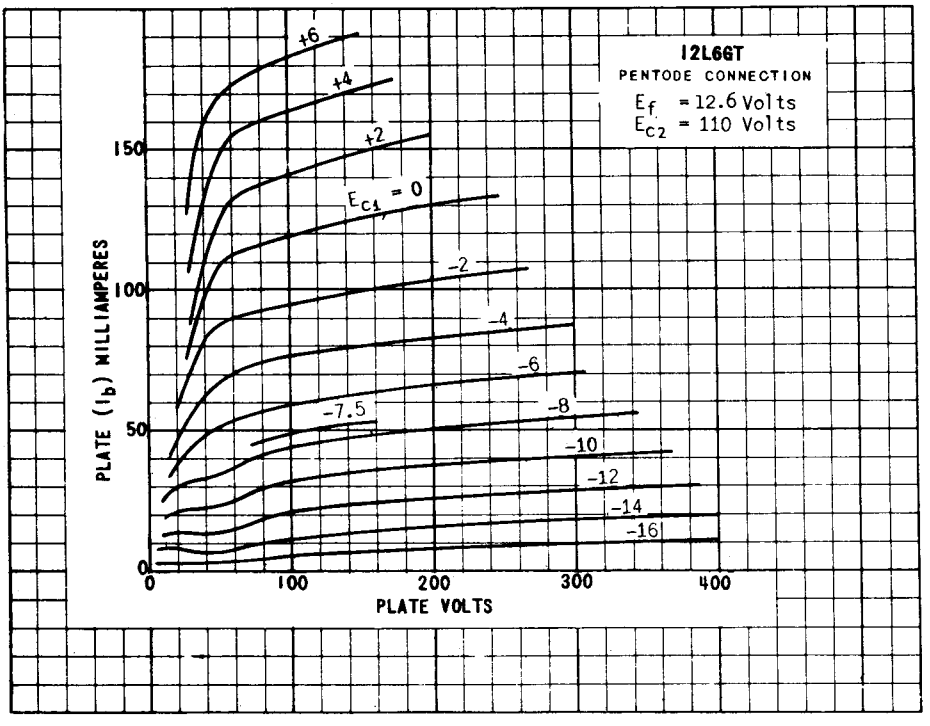
| | | | |
|---|---|---|---|
| HEATER VOLTAGE | 12.6 | 12.6 | VOLTS |
| HEATER CURRENT | 0.6 | 0.6 | AMP. |
| PLATE VOLTAGE | 110 | 200 | VOLTS |
| GRID #2 VOLTAGE | 110 | 125 | VOLTS |
| GRID #1 VOLTAGE | -7.5 | 0 | VOLTS |
| CATHODE BIAS RESISTOR | 0 | 180 | OHMS |
| PEAK AF GRID #1 VOLTAGE | 7.5 | 8.5 | VOLTS |
| PLATE RESISTANCE (APPROX.) | 13 000 | 28 000 | OHMS |
| TRANSCONDUCTANCE | 8 000 | 8 000 | μMHOS |
| ZERO-SIGNAL PLATE CURRENT | 49 | 46 | MA. |
| MAXIMUM-SIGNAL PLATE CURRENT | 50 | 47 | MA. |
| ZERO-SIGNAL GRID #2 CURRENT | 4 | 2.2 | MA. |
| MAXIMUM-SIGNAL GRID #2 CURRENT | 10 | 8.5 | MA. |
| LOAD RESISTANCE | 2 000 | 4 000 | OHMS |
| TOTAL HARMONIC DISTORTION (APPROX.) | 10 | 10 | PERCENT |
| POWER OUTPUT | 2.1 | 3.8 | WATTS |

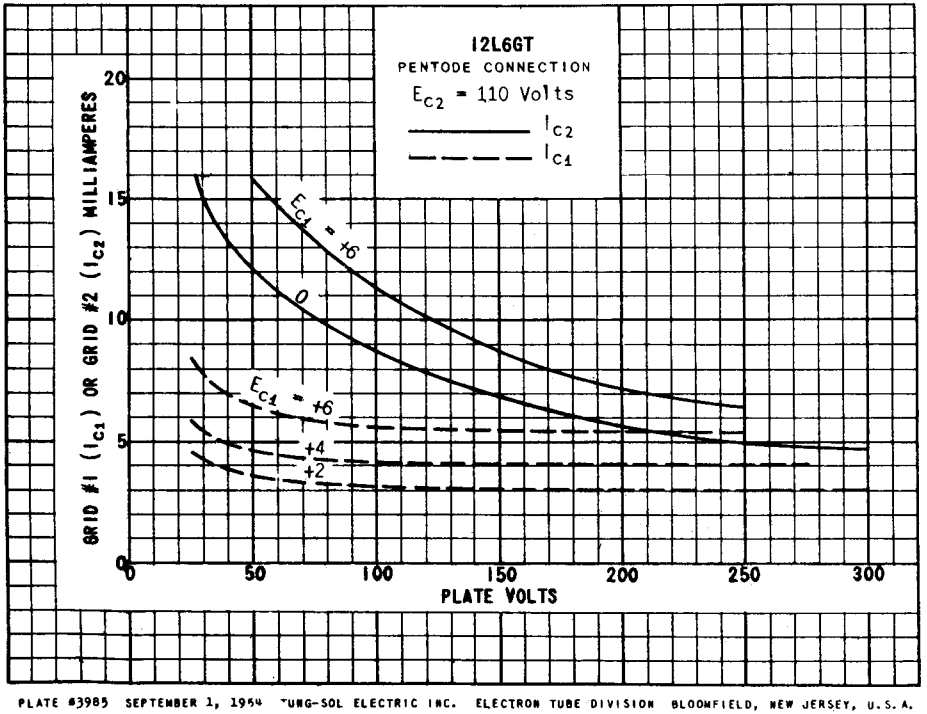
*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

→ INDICATES A CHANGE.

PRINTED IN U.S.A.

# 12L6GT


12L6GT
PENTODE CONNECTION
$E_f$ = 12.6 Volts
$E_{c2}$ = 110 Volts
+6
+4
+2
$E_{c1}$ = 0
-2
-4
-6
-7.5
-8
-10
-12
-14
-16
PLATE ($I_b$) MILLIAMPERES
0
50
100
150
0
100
200
300
400
PLATE VOLTS


12L6GT
PENTODE CONNECTION
$E_{c2}$ = 110 Volts
$I_{c2}$
$I_{c1}$
$E_{c1}$ = +6
0
$E_{c1}$ = +6
+4
+2
GRID #1 ($I_{c1}$) OR GRID #2 ($I_{c2}$) MILLIAMPERES
0
5
10
15
20
0
50
100
150
200
250
300
PLATE VOLTS