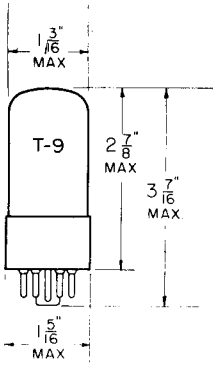
**TUNG-SOL**

# COMBINED HALF WAVE RECTIFIER AND BEAM POWER AMPLIFIER




COATED UNIPOTENTIAL CATHODES

HEATER
117 VOLTS 0.09 AMPERE
AC OR DC

ANY MOUNTING POSITION


**GLASS BULB**

**BOTTOM VIEW**

INTERMEDIATE SHELL
8-PIN OCTAL

THE 117N7GT IS A MULTI-UNIT TUBE CONTAINING A HALF-WAVE RECTIFIER AND A BEAM POWER AMPLIFIER IN THE SAME ENVELOPE. IT IS DESIGNED WITH A HEATER FOR CONNECTION DIRECTLY ACROSS A 117-VOLT SUPPLY LINE.

## RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

| | | |
|---|---|---|
| HEATER VOLTAGE (AC OR DC) | 117 | VOLTS |
| HEATER CURRENT | 0.09 | AMP. |

### RECTIFIER UNIT

| | | |
|---|---|---|
| MAX. PEAK INVERSE PLATE VOLTAGE | 350 | VOLTS |
| MAX. PEAK PLATE CURRENT | 450 | MA. |
| MAX. DC HEATER-CATHODE POTENTIAL | 175 | VOLTS |
| WITH CONDENSER-INPUT FILTER: | | |
| MAX. AC PLATE VOLTAGE (RMS) | 117 | VOLTS |
| MAX. DC OUTPUT CURRENT | 75 | MA. |
| MIN. TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE[A] | 15 | OHMS |

[A] WHEN A FILTER-INPUT CONDENSER LARGER THAN 40 μf IS USED, IT MAY BE NECESSARY TO USE ADDITIONAL PLATE-SUPPLY IMPEDANCE TO LIMIT THE PEAK PLATE CURRENT TO RATED VALUE.

CONTINUED ON FOLLOWING PAGE

PRINTED IN U. S. A.

PLATE 1615
OCT. 15, 1945

CONTINUED FROM PRECEDING PAGE

AMPLIFIER UNIT

| | | |
|---|---|---|
| MAX. PLATE VOLTAGE | 117 | VOLTS |
| MAX. SCREEN VOLTAGE | 117 | VOLTS |
| MAX. PLATE DISSIPATION | 5.5 | WATTS |
| MAX. SCREEN DISSIPATION | 1 | WATT |

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS $A_1$ AMPLIFIER

| | | |
|---|---|---|
| PLATE VOLTAGE | 100 | VOLTS |
| SCREEN VOLTAGE | 100 | VOLTS |
| GRID VOLTAGE[B] | -6 | VOLTS |
| PEAK AF GRID VOLTAGE | 6 | VOLTS |
| ZERO-SIGNAL PLATE CURRENT | 51 | MA. |
| ZERO-SIGNAL SCREEN CURRENT | 5 | MA. |
| PLATE RESISTANCE (APPROX.) | 16 000 | OHMS |
| LOAD RESISTANCE | 3000 | OHMS |
| TRANSCONDUCTANCE | 7000 | μMHOS |
| TOTAL HARMONIC DISTORTION | 6 | PER CENT |
| MAX. SIGNAL POWER OUTPUT | 1.2 | WATTS |

[B] TYPE OF INPUT COUPLING USED SHOULD NOT INTRODUCE TOO MUCH RESISTANCE IN THE GRID CIRCUIT. RESISTANCE SHOULD NOT EXCEED 0.25 MEGOHM WITH FIXED BIAS, NOR 1.0 MEGOHM WITH CATHODE BIAS.

PLATE 1616
OCT. 15, 1945