GENERAL

Type VT-191 Vacuum Tube - - Instructions

The VT-191 is a filamentary air-cooled triode designed for use as an ultrahigh-frequency oscillator and power amplifier. The tube develops a typical power output of 5 watts at a frequency of 500 Mc. The frequency limit of oscillation is 750 Mc.

GENERAL

Filament Voltage
Current
2 volts
3.65 amperes

Type - Thoriated tungsten

Average Characteristic Values Calculated at
Eb = 450 volts; Ib = 67 milliamperes
Amplification Factor
8
Grid-plate Transconductance
2400 micromhos

Direct Interelectrode Capacitances
Plate to Grid
1.6 µµf
Grid to Filament
1.1 µµf
Plate to Filament
0.65 µµf

Type of Cooling - - Air

PLATE MODULATED OSC & RADIO-FREQUENCY POWER AMPLIFIER - CLASS C
(Carrier conditions to which a modulation factor up to 1.0 can be applied)

Maximum D-c Plate Voltage
400 volts
Maximum D-c Plate Current
80 milliamperes
Maximum D-c Grid Current
15 milliamperes
Maximum Plate Dissipation
20 watts

OSCILLATOR & RADIO-FREQUENCY POWER AMPLIFIER - CLASS C - UNMODULATED

Maximum D-c Plate Voltage
450 volts
Maximum D-c Plate Current
95 milliamperes
Maximum D-c Plate Input
36 watts
Maximum D-c Grid Current
12 milliamperes
Maximum Plate Dissipation
35 watts

OSCILLATOR & RADIO-FREQUENCY POWER AMPLIFIER
Intermittent or keyed operation only. Duration of operating period 1.1 second maximum.

Maximum D-c Plate Voltage
1100 volts
Maximum Peak D-c Plate Current
250 milliamperes
Maximum Average D-c Plate Current
25 milliamperes

OPERATING PRECAUTIONS

The VT-191 tube must not be subjected to appreciable mechanical shock or vibration. The thoriated tungsten filament of this tube is somewhat more fragile than the thoriated tungsten filaments of other transmitting tubes. These tubes should therefore be handled with more care to prevent filament breakage. In connecting to the terminals of the tube, care must be taken not to strain the glass. The tube may be supported from the terminals providing flexibility is maintained.
All leads shall be so aligned that they can be freely inserted into a space 3/4 in thick having four holes whose diameters are 0.080 in located on true centers fixed by given dimensions. Lead ends beveled.