1949
VACUUM-GAUGE TUBE

HARD-GLASS BULB, IONIZATION TYPE

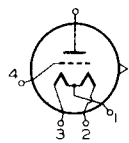
DATA

General:

Filament, Tungsten:*	
Voltage (Approx.)	5 ac or dc volts
Current (Approx.)	3.5 amp
Maximum Tube Length (including tubulation)	11-1/2"
Maximum Tube Radius	2-3/16"
Maximum Bulb Length	5-1/8"
Maximum Bulb Diameter	2-1/16"
Bulb	T-16
Tubulation	1/2" Diameter Hard Glass, Corning Code 772 Nonex
Operating Position	Vertical with tubulation up or down; Horizontal, with stem press in vertical plane
Terminal Arrangement	See Outline Drawing

Terminal Lead Connections:

Lead 1 – Common Lead to Filaments
Lead 2 – Filament
Lead 3 – Filament (Spare)



Lead 4 – Grid
Top Lead – Plate

Maximum Ratings, *Absolute Values*:

PLATE VOLTAGE	−100 max.	volts
GRID VOLTAGE	+200 max.	volts
AMBIENT TEMPERATURE	100 max.	°C
GAS PRESSURE	0.001 max.	mm of Hg.

Typical Operation:

Plate Voltage	−22.5	−22.5	−22.5	volts
Grid Voltage	+80	+110	+160	volts
Grid Current	10	10	10	ma.
Sensitivity	80	110	140	μamp/micron▲

Calibration:

See curve on following sheet.

* The 1949 contains two filaments, one of which is a spare. Values shown are for either filament operated alone.

▲ 1 micron = 0.001 mm of mercury.

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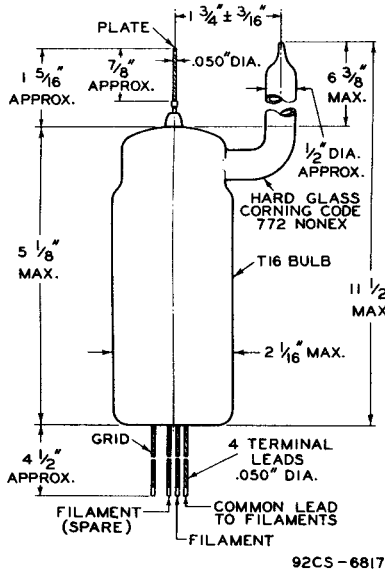
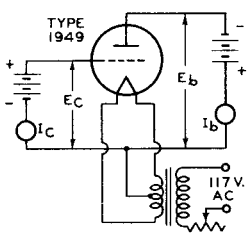


RCA

1949

CALIBRATION CURVES



GAS = DRY AIR
GRID MILLIAMPERES(I_C) = 10
PLATE VOLTS(E_b) = −22.5
TO CONVERT MM TO MICRONS,
MULTIPLY VALUES BY 1000

GAS PRESSURE — MM OF Hg

GRID VOLTS (E_C) = +80
+110
+160

PLATE MICROAMPERES (I_b)

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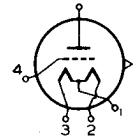

Lead 4 - Grid

Top Lead - Plate

Maximum Ratings, *Absolute Values:* ←

FILAMENT VOLTAGE	6.5 max.	volts
DC PLATE VOLTAGE DURING OPERATION	-100 max.	volts
DC GRID VOLTAGE DURING OPERATION	+200 max.	volts
VOLTAGE ON GRID & PLATE TIED TOGETHER DURING DEGASSING (DC OR PEAK AC)	650 max.	volts
GRID & PLATE DISSIPATION (TOTAL) DURING DEGASSING	150 max.	watts
AMBIENT TEMPERATURE DURING OPERATION.	100 max.	°C
GAS PRESSURE	0.001 max.	mm of Hg

Typical Degassing Conditions: ←

Grid Connected to Plate

Filament Voltage (AC or DC)	6	6	volts
Grid & Plate Voltage	350 rms	500 dc	volts
Grid & Plate Current (Average)	100	150	ma

Typical Operation:

DC Plate Voltage	-22.5	-22.5	-22.5	volts

* The 1949 contains two filaments, one of which is a spare. Values shown are for either filament operated alone. The filament voltage should be kept as low as possible during degassing because use of a low filament voltage materially increases filament life.

← Indicates a change

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DC Grid Voltage	+80	+110	+160	volts
Grid Current	10	10	10	ma
Sensitivity	80	110	140	μa/micron▲

Calibration:

See curve on following sheet.

▲ 1 micron = 0.001 mm of mercury.