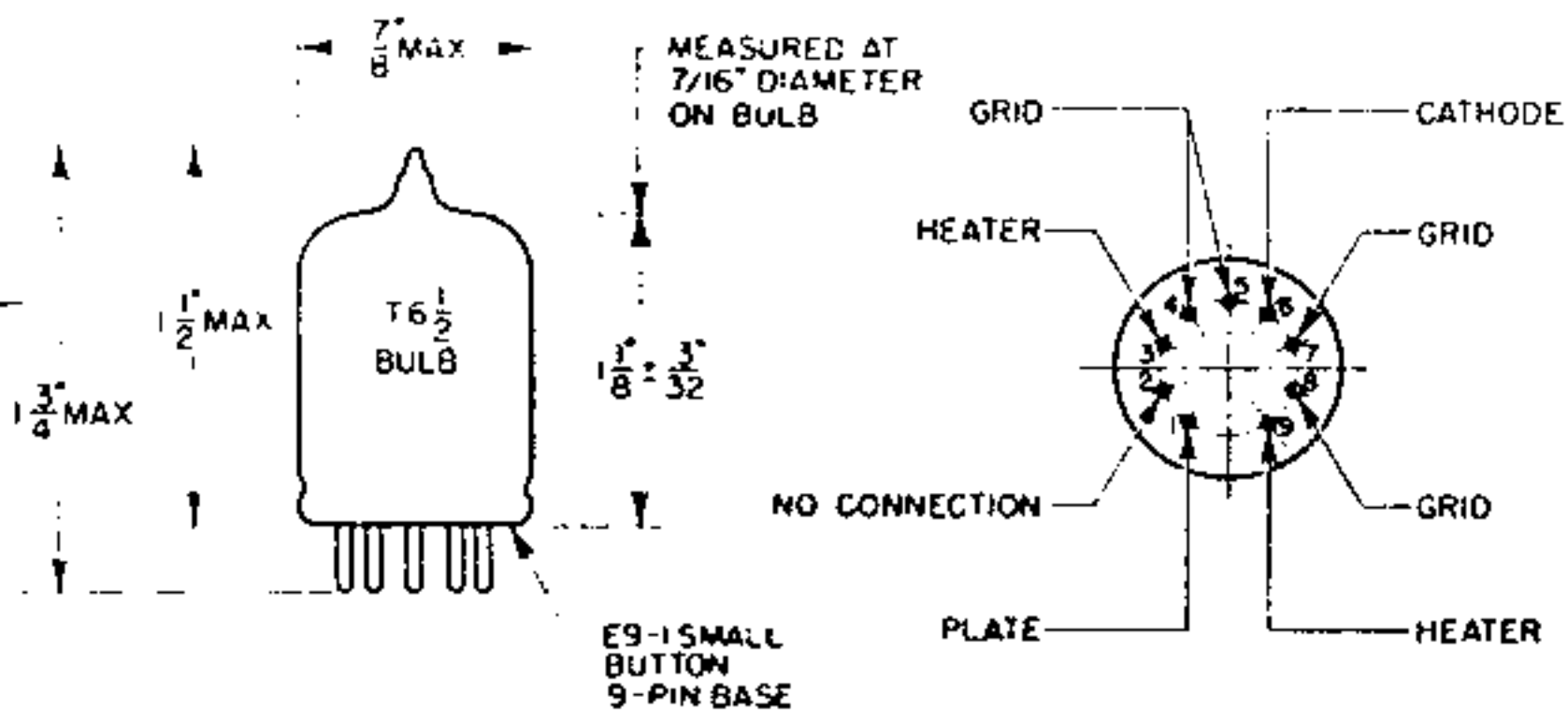


ADVANCE ELECTRON TUBE DATA SHEET
 WESTERN ELECTRIC ~~417A~~ ELECTRON TUBE



DESCRIPTION

The 642/417A* is a 9-pin miniature triode of the unipotential cathode type. It is intended primarily for grounded-grid operation in the input stage of broad band amplifiers.

CHARACTERISTICS

Heater Voltage	6.3 volts
Maximum Plate Voltage	180 volts
Amplification Factor	43

GENERAL CHARACTERISTICSELECTRICAL DATA

Heater Voltage	6.3 volts
Heater Current	300 milliamperes
Direct Interelectrode Capacitances	(without external shield)
Input (cathode to grid and heater)	9.0 uuf
Output (plate to grid and heater)	1.8 uuf
Plate to Cathode and Heater	0.48 uuf

MECHANICAL DATA

Cathode	Coated unipotential
Bulb	T6-1/2
Base	Small button 9-pin
Mounting Position	Any

MAXIMUM RATINGS, Design Center Values

Plate Voltage	180 volts
Plate Dissipation	4 watts
Cathode Current	35 milliamperes
Heater-Cathode Voltage	50 volts
Bulb Temperature	120°centigrade

OPERATING CONDITIONS AND CHARACTERISTICS

Plate Supply Voltage	130	150 volts
Grid Voltage *	+9	-- volts
Cathode Resistor	360	62 ohms
Plate Current	27.4	26 milliamperes
Plate Resistance	1600	1800 ohms
Transconductance	28000	24000 micromhos
Amplification Factor	44	43

* Reference point for "Grid Voltage" is the negative end of the cathode resistor.

Maximum Ratings, Absolute Values

Heater voltage (ac or dc)	6.3 \pm 10% volts max
Heater to cathode voltage	55 volts max
Plate voltage	200 volts max
Cathode current	38 mA max
Plate dissipation	4.5 watts max
Bulb temperature	160°C max

Typical Operation

Plate voltage	150	130 volts
Grid voltage	0	9 volts
Plate current	25	27 mA
Cathode bias resistance	60	360 ohms
Plate resistance	1700	1600 ohms
Transconductance	25,000	27,000 micromhos
Amplification factor	43	43

PLATE CHARACTERISTICS