

As tripler to 175 MHz

DC Plate Voltage	250	250	volts
Grid No.3	Connected to pin 1 at socket		
DC Grid-No.2 Voltage ^d	180	225	volts
DC Grid-No.1 Voltage ^f from a grid-No.1 resistor of:			
50,000 ohms	-90		volts
60,000 ohms		-108	volts
Peak RF Grid-No.1 Voltage	105	118	volts
DC Plate Current	40	50	mA
DC Grid-No.2 Current	2.5	3.4	mA
DC Grid-No.1 Current (Approx.)	1.8	1.8	mA
Driving Power ^f (Approx.)	0.4	0.6	watt
Useful Power Output ^g (Approx.)	1.4	2	watts

^a Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

^b Intermittent Commercial and Amateur Service.

^c Pins 4 and 5 at rf ground.

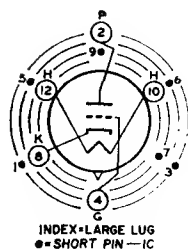
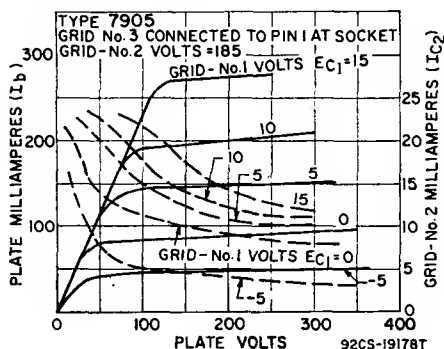
^d Obtained preferably from a separate source or from the plate-voltage supply with a voltage divider. If a series resistor is used, it should be adjustable to permit obtaining the desired operating plate current after initial tuning adjustments are completed.

^e Obtained from a grid-No.1 resistor, or from a combination of grid-No.1 resistor and either fixed supply or cathode resistor. The combination of grid-No.1 resistor and fixed supply has the advantage of not only protecting the tube from damage through loss of excitation but also of minimizing distortion by bias-supply compensation.

^f Driving power includes circuit losses and is the actual power measured at the input to the grid circuit.

^g Measured at load.

^h Obtained preferably from a separate source modulated along with the plate supply, or from the modulated plate supply through a series resistor. It is recommended that this resistor be adjustable to permit obtaining the desired operating plate current after initial tuning adjustments are made.



12AQ

MEDIUM-MU TRIODE

8056

INDUSTRIAL
TYPE

Nuvistor type, medium-mu triode for use in low voltage industrial applications. Outlines section, 1; requires nuvistor socket.

Heater Voltage (ac/dc)	6.3 $\pm$ 0.6	volts
Heater Current	0.135	ampere
Peak Heater-Cathode Voltage	$\pm$ 100	volts

Direct Interelectrode Capacitances (Approx.):

Grid to Plate	2.1	pF
Grid to Cathode, Shell, and Heater	4.0	pF
Plate to Cathode, Shell, and Heater	1.7	pF
Plate to Cathode	0.34	pF
Heater to Cathode	1.4	pF

Industrial Service

MAXIMUM RATINGS (Absolute-Maximum Values)

For operation at any altitude

Plate Voltage	50	volts
Grid Voltage:		
Negative-bias value	55	volts
Peak-positive value	2	volts
Grid Current	2	mA
Cathode Current	15	mA
Plate Dissipation	0.45	watt

TYPICAL OPERATION

Plate Supply Voltage	12	24	volts
Grid Supply Voltage	—	0.7	volt
Grid Resistor	33000	—	ohms
Amplification Factor	12	12	
Plate Resistance (Approx.)	1500	1500	ohms
Transconductance	8000	8000	μ mhos
Plate Current	5.5	9.5	mA

MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:*		
For fixed-bias operation	10	megohms
For cathode-bias operation	10	megohms

* For operation at metal-shell temperatures up to 150°C. For operation at other metal-shell temperatures, see Grid-Circuit Resistance Rating Chart.

Class A₁ Amplifier

CHARACTERISTICS

Plate Supply Voltage	24	volts
Grid	Connected to negative end of cathode resistor	
Cathode Resistor	100	ohms
Amplification Factor	11.5	
Plate Resistance (Approx.)	1530	ohms
Transconductance	7500	μ mhos
Plate Current	8.7	mA
Grid Voltage (Approx.) for plate μ A = 50	—5	volts

Special Ratings & Performance Data

SHOCK RATING

Impact Acceleration	1000 max.	g
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FATIGUE RATING

Vibrational Acceleration	2.5 max.	g
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