8BQ7-A
MEDIUM-MU TWIN TRIODE

Low-Noise 9-Pin Miniature Type
for Driven Grounded-Grid Circuits

Tentative Data

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:		
Voltage (AC or DC)	8.4	Volts
Current	0.3	amp

Direct interelectrode Capacitances:/

	Unit No. 1	Unit No. 2	
Grid to Plate	1.15	1.15	uuf
Input	2.85	-	uuf
Input (Grounded Grid)	-	4.95	uuf
Output	1.35	-	uuf
Output (Grounded Grid)	-	2.27	uuf
Plate to Cathode	0.15 max.	0.15 max.	uuf
Heater to Cathode	2.20	2.30	uuf
Plate of Unit No. 1 to Plate of Unit No. 2	0.010 max.		uuf
Plate of Unit No. 2 to Plate & Grid of Unit No. 1	0.024 max.		uuf

Mechanical:

Mounting Position	any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Noval 9-Pin (JETEC No.E9-1)

AMPLIFIER - Class A

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	250*	max.	volts
PLATE DISSIPATION	2	max.	watts
CATHODE CURRENT	20	max.	ma
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200*	max.	volts

from JETEC release # 1490, July 5, 1955
sponsor: Compagnie Industrielle Francaise / des Tubes Electroniques

Heater positive with respect to cathode	200 max.	volts

Characteristics:

Plate Voltage	150	volts
Cathode-Bias Resistor	220	ohms
Amplification Factor	39	
Plate Resistance	6100	ohms
Transconductance	6400	umhos
Plate Current	9	ma
Grid Volts (Approx.) for plate current of 10 uamp.	-10	volts

Typical Operation in Push-Pull Grounded-Grid Circuit:

Values are for Each Unit

Plate Voltage	150	volts
Grid Voltage**	-2	volts
Cathode Resistor (Common to both units)	100	ohms
Plate Current	10	ma

Typical Operation in Grounded-Grid Circuit with Direct-Coupled Drive:

Unit No. 1 (driver tube) is directly coupled to Unit No. 2 (driven grounded-grid amplifier tube) as shown in accompanying circuit.

	Unit No.1	Unit No.2	
Plate Supply Voltage	250	250	volts
Plate Voltage	135	115	volts
Grid Voltage	-1	-	volt
Grid Resistor	-	0.5	megohm
Plate Current	10	10	ma
Grid Current	0	0	ma
Grid Voltage (Approx.) for plate current of 10 uamp.	-14	-	volts
Peak Heater-Cathode Voltage: Heater negative with respect to cathode	1	250	volts

Maximum Circuit Values (Each Unit):

Grid-Circuit Resistance	0.5 max.	megohm

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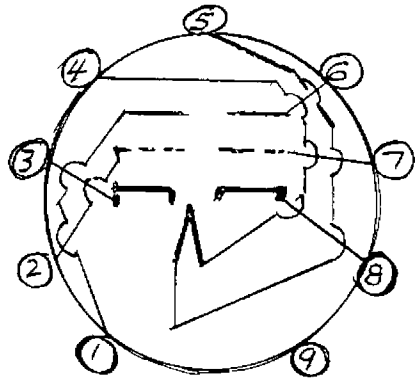
* Under cutoff conditions, in grounded-grid circuits with direct-coupled drive, it is permissible for this voltage to be as high as 300 volts.

** Obtained from cathode resistor.

/ According to RTMA Standard ET-109-A with external shield No.315.

SOCKET CONNECTIONS

Bottom View



9AJ

Pin 1: Plate of Triode No. 2
Pin 2: Grid of Triode No. 2
Pin 3: Cathode of Triode No. 2
Pin 4: Heater
Pin 5: Heater
Pin 6: Plate of Triode No.1
Pin 7: Grid of Triode No.1
Pin 8: Cathode of Triode No.1
Pin 9: Internal Shield