

NATIONAL UNION RADIO CORPORATION

Type 7X7

Twin Diode - High Mu Triode

Physical Specifications

Cathodes	Coated Unipotential
Base	Loktal 8-Pin
Bulb	T-9
Maximum Diameter	1-3/16"
Maximum Overall Length	2-5/32"
Maximum Seated Height	2-5/8"
Pin Connections:	
Pin 1 - Heater	Pin 5 - Diode Plate #1
2 - Triode Plate	6 - Diode Plate #2
3 - Triode Grid	7 - Cathode #2 (Diode #2)
4 - Cathode #1	8 - Heater
	(Triode & Diode #1) and Diode Shields

RMA Basing No. 8BZ-L-4

Mounting Position any

Direct Interelectrode Capacitances (without shield)

Diode #1 to All	2.9 uuf
Diode #2 to All	2.9 uuf
Diode #1 to Grid	.15 uuf max.
Diode #2 to Grid	.10 uuf max.
Diode #1 to Diode #2	.50 uuf max.

Ratings: Triode Unit

Heater Voltage (AC or DC) (Nominal)	7.0 Volts
Heater Current (Nominal)	.320 amp.
Maximum Plate Voltage	300 Volts

Diode Units (Two)

Diode Current per Plate with 5 volts DC applied 10.0 MA Min.

Average Characteristics - Triode Unit

Heater Voltage	6.3	6.3 Volts
Heater Current	.300	.300 amp.
Plate Current Voltage	100	250 Volts
Grid Voltage	0	-1.0 Volts
Amplification Factor	85	100
Transconductance	1000	1500 umhos
Plate Resistance	85,000	67,000 ohms
Plate Current	1.2	1.2 MA

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Average Characteristics - Diode Unit

Diode Voltage	2.5	Volts
Perveance	6.0	MA

Typical Operating Conditions & Characteristics
Zero-Bias Resistance Coupled Amplifier Class A:

Heater Voltage	6.3	6.3	Volts
Plate Supply Voltage	100	300	Volts
Grid Leak Following Stage	10	10	megohm
Load Resistance	.25	.25	megohm
Coupling Capacitance	.01 to .005	.01 to .005	uuf
Grid Resistor of Following Tube	1.0	1.0	megohm
External Grid Circuit Impedance	0	0	megohm
Voltage Gain	30	40	
Voltage Output (RMS) at 5% Dist.	6	30	volts

For interpretation of ratings refer to Receiving Tube Rating Sheets.

DEVELOPMENT ENGINEERING
NATIONAL UNION RADIO CORP.
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