



ELECTRONIC TUBE REFERENCE

6196

Voltage - Dual Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TETRODE-TETRODE

Directly heated dual space-charge tetrode electrometer tube designed for highly stable bridge circuits measuring extremely small currents and voltages.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	3 V / 50 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
TRANSCONDUCTANCE	0.00002 S
MAXIMUM PLATE VOLTAGE	9 V
First physical tetrode element of Mazda/National Union 6196 split double electrometer tetrode, represented here as MEASURING element with top-cap grid-2 input. Tube has two symmetrical grid-2/anode elements on either side of the direct-heated 3 V 50 mA filament with common space-charge grid-1; second COMPENSATING element is separate physical section 2. Ratings PER ELEMENT: maximum anode voltage 9 V, grid-1 6 V, grid-2 negative limit -2 V as manufacturer labeled. Typical V_a 9 V, g_1 +6 V, g_2 -4 V, transconductance about 20 μmhos (0.00002 S) per element; sample anode current varies in Mazda/National Union sheets. Measuring grid-2-to-other-electrodes capacitance 3.7 pF; very high grid leakage resistance ($>10^{15} \Omega$), minute inverse grid current, designed for stabilized balanced Wheatstone-bridge electrometer circuits. Shared filament/space-charge electrode do not collapse two physical tetrode elements into one row.	

SECTION2 Tetrode	
TRANSCONDUCTANCE	0.00002 S
MAXIMUM PLATE VOLTAGE	9 V
<i>Second physical Tetrode element of Mazda/National Union 6196 split electrometer tube: COMPENSATING element, grid-2 pin 2 and anode pin 5, sharing directly heated filament and grid-1 with the MEASURING element in section 1 (ID 9724). Per-element plate maximum 9 V, typical gm 20 μmhos (0.00002 S) at anode 9 V, space-charge grid +6 V, control grid -4 V. Typical measuring grid-2 capacitance 3.7 pF to other electrodes and extreme insulation. Dual symmetrical elements support a stable balanced Wheatstone-bridge electrometer circuit. These represent two physical tetrode sections, not alternative modes.</i>	

Directly heated dual space-charge tetrode electrometer tube for highly stable bridge measurement circuits.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 Mazda

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1960 MAZDA

Section 1 · Tetrode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament current minimum	45 mA	—
Filament current maximum	55 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Mazda Belvu

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1968 MAZDA BELVU

Section 1 · Tetrode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	3 V	Nominal
HeaterCurrentNominal	50 mA	Nominal
Maximum Plate Voltage	9 V	—

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	20 μ S	Typical

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

