



ELECTRONIC TUBE REFERENCE

PCF805

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Variable-mu frame-grid triode-pentode for VHF television tuner frequency changing and controlled IF amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	7.4 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.011 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	230 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	18 mA
<i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed when applicable.</i>	

SECTION2 Triode	
TRANSCONDUCTANCE	0.0055 S
AMPLIFICATION FACTOR	17
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed when applicable.</i>	

Variable-mu frame-grid triode-pentode for VHF television tuner frequency changing and controlled IF amplification. The supplied English-language Mazda/Thorn-AEI datasheet was used for the technical and descriptive extraction.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1973 Mazda Valves Binder 2

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

1973 MAZDA VALVES BINDER 2

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current Ih	300 mA	—
Heater Voltage Vh	74 V	—
Maximum Anode Dissipation pa(max) 2	2 W	—
Maximum Anode Voltage Va(max) 250	250 V	—
Maximum Heater to Cathode Voltage (R.M.S.) Vh- k(r.m.s.)max 200	200 V	—
Maximum Cathode Current Ik(max) 18	15 mA	—
Supply Voltage Vb 200	200 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to all cg1_all 6.7 7.1	8.2 pF	—
Anode Pentode to all cap-all 2.7 3.1	4.2 pF	—
Grid 1 to Anode Pentode cg1_a p '007 •008 •	9 pF	—
Anode Triode to Earth cat-E 2.2 2.5	3.5 pF	—
Grid Triode to Earth cgt_E 2.4 2.7	3.7 pF	—
Anode Pentode to Grid Triode cap_gt 001 003 •	5 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Triode to Anode Triode cgt-at 2.0 2.05	2.1 pF	—
Anode Pentode to Anode Triode cap-at 014 •027	46 pF	—
Grid 1 to Grid Triode cgl_gt •008 •018 •	37 pF	—
Grid 1 to Anode Triode cgl_at '002 '004 '	6 pF	—
Anode Voltage Va 125	100 V	—
Control Grid Voltage Vg1 - -15 —	3 V	—
Anode Current Ia 10	14 mA	—
Mutual Conductance g,, 11	5.5 mA	—
Frequency f 200	36 Mc/s	—
Anode Voltage (Decoupling Resistance, Ra 5 6k4) (approx) Va 155	125 V	—
Screen Grid Voltage (Rg2=27kc2) (approx) Vg2 135	92 V	—
Anode Current (approx) Ia 7.8	132 mA	—
Screen Grid Current (approx) Ig2 24	40 mA	—
Mutual Conductance (Vb,Ra,Rg1,Rg2 as above) g,,	152 mA	—
Grid Voltage for Mutual Conductance reduction 10 : 1 Vg1(gm/10)	-50 V	—
Grid Voltage for Mutual Conductance reduction 100 : 1 Vg1(gm/100) — —	68 V	—
Change in Input Capacitance by biasing valve to cut-off —	2.8 pF	—
Anode Voltage Va	77 V	—
Anode Current Ia	78 mA	—
Rectified Grid Voltage (Grid Resistance=47k4) Vg	65 V	—
greater than	8 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage (Decoupling Resistance, Ra=5 6kQ) approx Va 160	125 V	—
Screen Grid Voltage (Rg2=27kQ) approx Vg2 140	92 V	—
Anode Current (approx) Ia 70	132 mA	—
Screen Grid Current (approx) Ig2 22	40 mA	—
Conversion Conductance at	1 Mc/s	—
Mutual Conductance (Vb, Ra, Rg1, Rg2 as above) gm	152 mA	—
Grid Voltage for Mutual Conductance reduction 10 : 1 Vg1(gm/10)	-6.2 V	—
Grid Voltage for Mutual Conductance reduction 100 : 1 Vg1(gm/100) — —	85 V	—
Anode Voltage Va	110 V	—
Anode Current Ia	105 mA	—
Rectified Grid Voltage (Grid Resistance=47kQ) Vg	11 V	—
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ANODE CURRENT CIa~	1 A	—

TUBE TINKER

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