ELECTRONIC TUBE REFERENCE

3ER5

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

> High-mu frame-grid triode used as an RF amplifier in VHF television tuners.

General characteristics

BASE DESIGNATION	7FP	**BASE PINS**	7
NOMINAL HEATER	2.8 V / 450 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

7FP - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – IS	A	IS – Internal Screen	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

Section ratings

SECTION1 Triode

PLATE RESISTANCE	8000 Ω
TRANSCONDUCTANCE	0.0105 S
AMPLIFICATION FACTOR	80
MAXIMUM PLATE VOLTAGE	550 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	20 mA

Promoted only where the locked schema has a direct semantic match; additional published receiving-tube, pulse, rectifier, capacitance, and transmitting-tube values are retained in TUBE_SECTION_PARAMETER.

> High-mu frame-grid triode used as an RF amplifier in VHF television tuners.

SOURCE OPERATING CONDITIONS

1963 Amperex Condensed

SOURCE PDF

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

1963 AMPEREX CONDENSED

Section 1 · Triode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**200 V**	RFAmplifier
Control-grid voltage	**-1.2 V**	RFAmplifier
Plate current	**10 mA**	RFAmplifier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transconductance	**10500 µS**	Section1
Amplification factor	**80**	Section1

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

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1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Triode

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-heater capacitance maximum	**0.28 pF**	Section1
Cathode-to-heater capacitance	**2.8 pF**	Section1

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Zero-current plate voltage maximum	**550 V**	Section1
Plate voltage	**200 V**	VHFRFAmplifier
Plate current	**10 mA**	VHFRFAmplifier
Application	**Remote-cutoff frame-grid VHF tuner amplifier**	Section1

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transconductance	**10500 µS**	Section1
Amplification factor	**80**	Section1

SOURCE OPERATING CONDITIONS

SOURCE PDF

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Triode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage (ac/dc) 2.8	**6.3 V**	Published in approved 6ER5 target entry; Section1
Heater Current 0.45	**180 mA**	Published in approved 6ER5 target entry; Section1
Plate Voltage	**250 V**	Published in approved 6ER5 target entry; Section1
Grid Voltage, Negative-bias value	**50 V**	Published in approved 6ER5 target entry; Section1
Cathode Current	**20 mA**	Published in approved 6ER5 target entry; Section1
Plate Dissipation	**2.2 W**	Published in approved 6ER5 target entry; Section1
Grid Voltage	**-1.2 V**	Published in approved 6ER5 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	**8000 Ω**	Published in approved 6ER5 target entry; Section1
Transconductance	**10500 µS**	Published in approved 6ER5 target entry; Section1
Plate Current	**10 mA**	Published in approved 6ER5 target entry; Section1
Grid Voltage (Approx.) for transconductance of 500 /xmhos	**-3.8 V**	Published in approved 6ER5 target entry; Section1

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate 0.38	**0.36 pF**	Published in approved 6ER5 target entry; Section1
Grid to Cathode, Heater, and Internal Shield . 4.4	**4.4 pF**	Published in approved 6ER5 target entry; Section1
Plate to Cathode, Heater, and Internal Shield . . 3	**4 pF**	Published in approved 6ER5 target entry; Section1

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage (Approx.) for transconductance of	**100 µS**	Published in approved 6ER5 target entry; Section1
Grid Voltage (Approx.) for transconductance of 100 /imhos	**-5.6 V**	Published in approved 6ER5 target entry; Section1

Tube Tinker

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

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