



ELECTRONIC TUBE REFERENCE

3EA5

Voltage Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Sharp-cutoff tetrode for high-plate-voltage RF amplification in VHF television tuners. Its high output resistance and controlled cutoff suit low-level tuner front ends.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	2.9 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	3.25 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Tung-Sol 3EA5 sharp-cutoff seven-pin miniature tetrode for high-plate-voltage RF amplifier service in VHF television tuners, heater 2.9 V at 0.45 A. Manufacturer maximum plate 250 V, screen 150 V, plate dissipation 3.25 W, screen dissipation 0.5 W, cathode DC current 20 mA. Typical at V_a 250 V, screen 140 V, control grid about -1 V: gm 8000 μmhos (0.008 S), plate resistance approximately 0.15 MΩ (150 kΩ), plate current 10 mA. Controlled warm-up approximately 11 s under manufacturer warm-up test. Heater-cathode total DC/peak max 200 V, positive DC heater 100 V. Direct interelectrode capacitances documented.</i>	

Sharp-cutoff tetrode for high-plate-voltage RF amplification in VHF television tuners.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAX IMUM PLATE VOLTAGE 250 250	250 VOLTS	Published datasheet value
MAX IMUM CATHODE CURRENT (DC) 20 20	20 MA	Published datasheet value
PLATE VOLTAGE 250 250	250 VOLTS	Published datasheet value
PLATE CURRENT 10 10	10 MA	Published datasheet value
GRID #2 CURRENT 0.35 0.95	0.95 MA	Published datasheet value



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Tetrode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance maximum with shield	0.05 pF	Section1
Input capacitance with shield	4.5 pF	Section1
Output capacitance with shield	3 pF	Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance maximum unshielded	0.06 pF	Section1
Input capacitance unshielded	3.8 pF	Section1
Output capacitance unshielded	2.3 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage maximum	250 V	VHFRFAmplifier
Screen voltage maximum	150 V	VHFRFAmplifier
Plate dissipation maximum	3.25 W	Section1
Cathode current maximum	20 mA	Section1
Application	High-plate-voltage VHF tuner RF amplifier	Section1