



ELECTRONIC TUBE REFERENCE

3DT6

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Dual-control sharp-cutoff pentode for specialized television circuits including FM detection, delay, gain control, and mixing. Independently effective control grids provide greater functional versatility than an ordinary amplifier pentode.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	3.15 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.0008 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM SCREEN DISSIPATION	1 W
Grid-1 transconductance promoted; grid-3 transconductance retained as parameter.	

Sharp-cutoff pentode with independent control grids for FM-detector, delay, gain-control, and mixer circuits in series-string television receivers.



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID #4 VOLTAGE (APPROX.) FOR PLATE CURRENT OF 10 μ AMP	4.5 VOLTS	Published datasheet value
PLATE CURRENT	1.1 MA	Published datasheet value
GRID #2 CURRENT 3.4 5.5	6 MA	Published datasheet value



SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassA
Screen-grid voltage	100 V	ClassA
Grid 3 voltage	0 V	ClassA
Cathode bias resistor	560 Ohm	ClassA
Plate current	1.7 mA	ClassA
Screen-grid current	2.1 mA	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	150000 Ohm	ClassA
Grid 1 transconductance	800 uS	ClassA
Grid 3 transconductance	515 uS	ClassA
Grid 1 cutoff voltage	-4.5 V	—
Grid 3 cutoff voltage	-3.5 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to plate capacitance	0.02 pF	Shielded
Grid 3 to plate capacitance	1.4 pF	Shielded
Grid 1 input capacitance	5.8 pF	Shielded



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-1-to-plate capacitance	0.02 pF	Section1
Grid-1-to-grid-3 capacitance	0.1 pF	Section1
Grid-3-to-other-electrodes capacitance	6.1 pF	Section1
Grid-3-to-plate capacitance	1.4 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	150 V	FMDetector
Grid-2 supply voltage	100 V	FMDetector
Grid-3 voltage	0 V	FMDetector

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-bias resistor	560 Ω	FMDetector
Plate current	1.1 mA	FMDetector
Screen current	2.1 mA	FMDetector

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	0.15 M Ω	Section1
Grid-1-to-plate transconductance	500 μ S	Section1
Grid-3-to-plate transconductance	515 μ S	Section1



SOURCE OPERATING CONDITIONS

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater warm-up time	11 s	—

TUBE TINKER

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and their source documents.

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