

ELECTRONIC TUBE REFERENCE

12S7

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

DIODE-PENTODE

Remote-cutoff RF pentode combined with a diode detector for receiver amplification and demodulation. The pentode provides controlled-gain RF/IF amplification while the diode supplies signal detection.

GENERAL CHARACTERISTICS

BASE DESIGNATION	OCTAL	BASE PINS	—
NOMINAL HEATER	12.6 V / 100 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.002 S
AMPLIFICATION FACTOR	18
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	10 mA

SECTION2 Diode	
No fixed ratings recorded.	
Physical diode section added in approved section-structure reconciliation.	

The Philips 12S7 combines one diode section with a remote-cutoff RF pentode. The pentode section has published design-centre ratings, 2000 μ S typical transconductance and interelectrode capacitances.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	—
Screen voltage	85 V	—
Plate current	5 mA	—
Screen current	1.5 mA	—
Grid voltage	-2 V	—
Transconductance	2000 μ S	—
Plate resistance	1000000 ohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate supply voltage	550 V	—
Maximum grid circuit resistance	3 Mohm	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-heater capacitance maximum	0.05 pF	—

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