



ELECTRONIC TUBE REFERENCE

DF21

Voltage Pentode - Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Low-filament-current battery pentode designed for RF, IF, and audio-frequency amplification in portable receiving equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	1.4 V / 25 mA	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	3000000 Ω
TRANSCONDUCTANCE	0.00082 S
MAXIMUM PLATE VOLTAGE	135 V
MAXIMUM SCREEN VOLTAGE	135 V
MAXIMUM PLATE DISSIPATION	0.2 W
MAXIMUM SCREEN DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	2.6 mA
Principal RF/IF characteristic at 90 V promoted.	

Low-filament-current R.F., I.F. and A.F. battery pentode. The supplied Philips sheet was read for heater/filament data, ratings, characteristics, capacitances, and operating conditions where published.

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-grid capacitance maximum	0.008 pF	—
Control-grid capacitance	5.3 pF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	90 V	RF/IF
Screen voltage	90 V	RF/IF
Grid bias	-0.5 V	Uncontrolled
Plate current	0.85 mA	—
Screen current	0.18 mA	—
Transconductance	820 uS	—
Plate resistance	3 Mohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage gain	85	AF; Battery Voltage=120V; Ra=0.5Mohm