



ELECTRONIC TUBE REFERENCE

EF55

Voltage Pentode - Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Sharp-cutoff video-frequency pentode with very high mutual conductance. Mullard documentation identifies it for wideband video amplification where substantial fixed gain and high-frequency response are required.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9G	BASE PINS	9
NOMINAL HEATER	6.3 V / 1 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	55000 Ω
TRANSCONDUCTANCE	0.012 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	15 mA
<i>Published source values promoted where applicable; additional published values retained as parameters.</i>	

Sharp-cutoff video-frequency pentode with very high mutual conductance.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1951 Mullard Valve and Service Manual

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

1951 MULLARD VALVE AND SERVICE MANUAL

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Sharp cutoff	—

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Video amplification	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum operating frequency	250 MHz	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Pentode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	1 A	—
Plate Voltage	250 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen Voltage	250 V	—
Plate Current	40 mA	—
Screen Current	5.5 mA	—
Transconductance	12000 μ S	—
Plate Resistance	55000 ohm	—
Plate Voltage	250 V	LowerCurrentPoint
Screen Voltage	150 V	LowerCurrentPoint
Plate Current	10 mA	LowerCurrentPoint
Screen Current	1 mA	LowerCurrentPoint
Transconductance	7000 μ S	LowerCurrentPoint
Plate Resistance	100000 ohm	LowerCurrentPoint

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	300 V	—
Maximum Plate Dissipation	10 W	—
Maximum Screen Dissipation	2 W	—
Maximum Peak Plate Supply Voltage	500 V	—
Peak Cathode Current	1.5 A	PulseWidth=50us; Repetition=500Hz



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	300 mA	—
Plate voltage	250 V	HighCurrent
Screen voltage	250 V	HighCurrent
Grid voltage	-4.5 V	HighCurrent
Plate current	40 mA	HighCurrent
Screen current	5.5 mA	HighCurrent
Transconductance	12000 μ S	HighCurrent
Screen-grid amplification factor	28	HighCurrent
Plate resistance	55000 ohm	HighCurrent
Plate voltage	250 V	LowerCurrent
Screen voltage	150 V	LowerCurrent
Grid voltage	-4 V	LowerCurrent
Plate current	10 mA	LowerCurrent
Screen current	1 mA	LowerCurrent
Transconductance	7000 μ S	LowerCurrent
Screen-grid amplification factor	27	LowerCurrent
Plate resistance	100000 ohm	LowerCurrent

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-grid capacitance	0.15 pF	—
Plate capacitance	12 pF	—
Grid input capacitance	15 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak cathode current	1.5 A	500PulsesPerSecond;PulseDuration=50us