ELECTRONIC TUBE REFERENCE

EY51

Rectifier - TV Line Scan Boost electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
RECTIFIER

Extra-high-tension diode designed for portable television high-voltage rectifier service, providing specialized flyback-derived rectification for the CRT accelerating-voltage supply.

General characteristics

BASE DESIGNATION	_	**BASE PINS**	_
NOMINAL HEATER	6.3 V / 90 mA	**PARALLEL HEATER**	_ / _
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Rectifier

PEAK INVERSE VOLTAGE	17000 V
NOMINAL OUTPUT CURRENT	3 mA
PEAK FORWARD CURRENT	80 mA

Published ratings/characteristics promoted where clearly stated; repeated identical rectifier sections compressed to one section row.

Extra-high-tension diode for portable television high-voltage rectifier service. Indirectly heated Mazda/Belvu receiving tube; descriptive text translated to English from the French source.

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 · Rectifier

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Reservoir capacitance maximum	**0.1 uF**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1951 Philips Receiving Tubes for Television

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

1951 PHILIPS RECEIVING TUBES FOR TELEVISION

Section 1 · Rectifier

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Input Voltage RMS	**5000 V**	MainsFrequency
Average Output Current	**3 mA**	MainsFrequency
Reservoir Capacitance	**0.1 uF**	MainsFrequency
Minimum Limiting Resistance	**100000 ohm**	MainsFrequency
Peak Inverse Voltage	**17000 V**	Frequency=10-500kHz
Average Output Current	**0.5 mA**	Frequency=10-500kHz
Average Output Current	**0.2 mA**	PulseInput
Peak Cathode Current	**80 mA**	PulseInput

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Anode-Cathode Capacitance	**0.8 pF**	—

SOURCE OPERATING CONDITIONS

SOURCE PDF

1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**6.3 V**	Published nominal value
Heater current	**90 mA**	Published nominal value

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Anode-cathode capacitance	**0.8 pF**	Published

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum AC input voltage	**5 kV**	50 Hz rectification

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Rectifier

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transformer voltage maximum	**5 kV**	50HzSine
Inverse plate voltage maximum	**17 kV**	HighFrequencyOrPulse
DC plate current maximum	**0.5 mA**	—
Peak plate current maximum	**80 mA**	Pulse

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate-cathode capacitance	**0.8 pF**	—

SOURCE OPERATING CONDITIONS

SOURCE PDF

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK
Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage	**6.3 V**	—
Heater Current	**90 mA**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum RMS Input Voltage	**5000 V**	SinusoidalInput50Hz
Maximum Rectified Current	**3 mA**	SinusoidalInput50Hz

TUBE TINKER
ELECTRON TUBE DATABASE
SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Mullard

SOURCE PDF

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

1963 MULLARD

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
HeaterOrFilamentVoltage	**6.3 V**	—
HeaterOrFilamentCurrent	**500 mA**	—
Application	**High-voltage half-wave rectifier**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
DCOutputVoltageMaximum	**5 kV**	50-150Hz
DCOutputVoltageMaximum	**9 kV**	PulseOperation

TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Philips Electron Tubes Handbook V1a

SOURCE PDF

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Rectifier

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Anode-to-cathode capacitance	**0.8 pF**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum AC input voltage at 50 Hz	**5000 V RMS**	50Hz
Maximum DC output current	**3 mA**	50Hz

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum filter capacitance	**0.1 uF**	50Hz
Minimum series resistance	**0.1 MOhm**	50Hz
Peak inverse voltage	**17000 V**	10-500kHz
Maximum DC output current	**3 mA**	10-500kHz
Maximum filter capacitance	**0.01 uF**	10-500kHz
Peak inverse voltage	**17000 V**	PulsedEHT
Maximum DC output current	**0.35 mA**	PulsedEHT
Maximum peak current	**80 mA**	PulsedEHT
Maximum filter capacitance	**5000 pF**	PulsedEHT

SOURCE OPERATING CONDITIONS

SOURCE PDF

1967 Mullard Receiving Tubes for Maintenance

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

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Rectifier

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Ra m min	**100**	LIMITING VALUES
P.I.V. ma x	**17 V**	LIMITING VALUES
lout ma x	**3 ma**	LIMITING VALUES
lout max	**350**	LIMITING VALUES
0 100 200 300 Va(V)	**300 V**	LIMITING VALUES

SOURCE DATA APPENDIX

1968 Mazda Belvu

SOURCE PDF

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

1968 MAZDA BELVU

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
rassseses sacasemessaccanesn cu ce sete vf	**6.3 V**	—
Position d€ MONtAGE	**1020000 s**	—
cu sasm sanarè e Cs	**0.8 pF**	—
cec VE	**1.3 V**	—
supérieure à	**2000 pF**	—
ce sacesenreaveresemercccececess VA	**100 V**	—
Courant d'AnOd®E …… s… ermenseriencesacsrosereneesserneocacerensen lA	**13 mA**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Coutant filament … If	**90 mA**	—
Tension-inverse de crête d'anode …… Vaicr	**15 kV**	—
dans le système des limites absolues… Vai er	**18 kV**	—
Courant de crête d’anode (1) ….……..…sereersvercanmecnnue Ia CT	**40 mA**	—
pour la < 200 uA …… …. VÉ	**1.6 V**	—
(1) limité à 10 % d'un cycle de balayage lignes, avec un maximum de	**10 s**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1973 Mazda Valves Binder 2

SOURCE PDF

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

1973 MAZDA VALVES BINDER 2

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**6.3 V**	Published nominal value
Heater current	**90 mA**	Published nominal value

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum reservoir capacitor	**0.01 uF**	Sinusoidal input
Maximum rectified current	**30 mA**	Sinusoidal input

SOURCE OPERATING CONDITIONS

1999 Philips E-Z

SOURCE PDF

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

1999 PHILIPS E-Z

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Published electrical datum	**6.3 V**	Chauffage: indirect par C.A. ou C.C.; Ve = 6,3V
Published electrical datum	**90 mA**	Heizung: indirekt durch Wechsel- If = 90 mA
Published electrical datum	**0.8 pF**	Capacité Cax = 0,8 pF
Published electrical datum	**0.1 MQ**	Ry = min. 0,1 MQ
Published electrical datum	**17 kV**	Va invp = DaX. 17 kV
Published electrical datum	**3 mA**	Io = maxe 3 mA
Published electrical datum	**—**	Rg = min., 0Oy1 MQ
Published electrical datum	**—**	25 I, (mA)

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Published electrical datum	**3 mA**	Io = maX. 3 mA
Published electrical datum	**0.1 µF**	Crilt = max. 0,1 uF
Published electrical datum	**0.01 µF**	Cfiit = max. 0,01 uF
Published electrical datum	**0.35 mA**	Io = max. 0,35 mA
Published electrical datum	**80 mA**	Iop = max. 80 mA 1)
Published electrical datum	**—**	pulses, with a maximum of 5 .sec
Heater voltage	**6.3 V**	Nominal heater rating
Heater current	**90 mA**	Nominal heater rating

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

Catalog Tube types Full books Blog Feedback & corrections

© 2026 Tube Tinker