



ELECTRONIC TUBE REFERENCE

506

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Directly heated full-wave high-vacuum rectifier for AC-mains receiver power supplies. Its four-volt filament and moderate current capability suit conventional radio B-plus supply service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	A35-5	BASE PINS	—
NOMINAL HEATER	4 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier

NOMINAL OUTPUT CURRENT	75 mA
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Special-purpose data not represented by fixed promoted fields are preserved in TUBE_SECTION_PARAMETER. Ignitron/mercury-pool data semantically matching rectifier inverse-voltage and current fields were promoted; remaining grid, ignitor, auxiliary-anode, thermal, and fault ratings are parameters.

SECTION2 Rectifier

NOMINAL OUTPUT CURRENT	75 mA
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Second physical rectifier section; electrical properties populated from corresponding identical section.

Directly heated full-wave high-vacuum rectifier for AC-mains receiver power supplies.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Philips Miniwatt Vacuum Tube Catalog

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

1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum AC no-load voltage per plate	300 V RMS	FullWave
DC output current maximum	75 mA	FullWave

1938 PHILIPS MINIWATT VACUUM TUBE CATALOG

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum AC no-load voltage per plate	300 V RMS	FullWave
DC output current maximum	75 mA	FullWave

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 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The tube	18 C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Water Temperature Rise	4 °C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Pressure Drop at	5 gal/min	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Inlet Water Temperature minimum	35 °C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Water Flow minimum	5 gal/min	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Inverse	20000 V	Power-Rectifier Service Minimum Maximum
Forward	20000 V	Power-Rectifier Service Minimum Maximum
ASA (See ASA Standards	2.103 °C	Power-Rectifier Service Minimum Maximum
Peak	900 A	Power-Rectifier Service Minimum Maximum
Fault	6000 A	Power-Rectifier Service Minimum Maximum
Forward	5 A	Power-Rectifier Service Minimum Maximum
Inverse	400 mA	Power-Rectifier Service Minimum Maximum
Inverse	200 mA	Power-Rectifier Service Minimum Maximum
Forward	200 V	Power-Rectifier Service Minimum Maximum
Inverse	25 V	Power-Rectifier Service Minimum Maximum
Forward	20 A	Power-Rectifier Service Minimum Maximum
Inverse	100 A	Power-Rectifier Service Minimum Maximum
Average	5 A	Power-Rectifier Service Minimum Maximum
RMS	10 A	Power-Rectifier Service Minimum Maximum
Inverse	20000 V	Power-Rectifier Service Minimum Maximum
Forward	20000 V	Power-Rectifier Service Minimum Maximum
Peak	600 A	Power-Rectifier Service Minimum Maximum
Average	200 A	Power-Rectifier Service Minimum Maximum
Forward	500 V	Power-Rectifier Service Minimum Maximum
Inverse	200 V	Power-Rectifier Service Minimum Maximum
Inverse	100 mA	Power-Rectifier Service Minimum Maximum
Peak	1500 A	Power-Rectifier Service Minimum Maximum
Average	150 A	Power-Rectifier Service Minimum Maximum
Averaging Time	0.15 °C	Power-Rectifier Service Minimum Maximum
RMS	500 A	Power-Rectifier Service Minimum Maximum

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak	2000 A	Power-Rectifier Service Minimum Max Lmum
Fault	2000 A	Power-Rectifier Service Minimum Max Lmum
Above	60 C	Power-Rectifier Service Minimum Max Lmum
Peak	20000 V	Power-Rectifier Service Minimum Max Lmum
Forward	100 V	Power-Rectifier Service Minimum Max Lmum
Peak	6000 A	Power-Rectifier Service Minimum Max Lmum
Average	90 A	Power-Rectifier Service Minimum Max Lmum
Averaging Time	10 s	Power-Rectifier Service Minimum Max Lmum
Jonization Time	10 us	Power-Rectifier Service Minimum Max Lmum
Negative Voltage	5 V	Power-Rectifier Service Minimum Max Lmum

1968 GENERAL ELECTRIC CO

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The tube	18 C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Water Temperature Rlse	4 C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Pressure Drop at	5 gal/min	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Inlet Water Temperature minimum	35 C	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Water Flow minimum	5 gal/min	The tube 18 also designed for use in intermittent-rectifier service, capacitor-dis-
Inverse	20000 V	Power-Rectifier Service Minimum Ma ximum
Forward	20000 V	Power-Rectifier Service Minimum Ma ximum
ASA (See ASA Standards	2.103 C	Power-Rectifier Service Minimum Max Lmum
Peak	900 A	Power-Rectifier Service Minimum Max Lmum
Fault	6000 A	Power-Rectifier Service Minimum Max Lmum
Forward	5 A	Power-Rectifier Service Minimum Max Lmum
Inverae	400 mA	Power-Rectifier Service Minimum Max Lmum
Inverse	200 mA	Power-Rectifier Service Minimum Max Lmum
Forward	200 V	Power-Rectifier Service Minimum Max Lmum
Inverse	25 V	Power-Rectifier Service Minimum Max Lmum

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Forward	20 A	Power-Rectifier Service Minimum Max Lmum
Inverse	100 A	Power-Rectifier Service Minimum Max Lmum
Average	5 A	Power-Rectifier Service Minimum Max Lmum
RMS	10 A	Power-Rectifier Service Minimum Max Lmum
Inverse	20000 V	Power-Rectifier Service Minimum Max Lmum
Forward	20000 V	Power-Rectifier Service Minimum Max Lmum
Peak	600 A	Power-Rectifier Service Minimum Max Lmum
Average	200 A	Power-Rectifier Service Minimum Max Lmum
Forward	500 V	Power-Rectifier Service Minimum Max Lmum
Inverse	200 V	Power-Rectifier Service Minimum Max Lmum
Inverse	100 mA	Power-Rectifier Service Minimum Max Lmum
Peak	1500 A	Power-Rectifier Service Minimum Max Lmum
Average	150 A	Power-Rectifier Service Minimum Max Lmum
Averaging Time	0.15 C	Power-Rectifier Service Minimum Max Lmum
RMS	500 A	Power-Rectifier Service Minimum Max Lmum
Peak	2000 A	Power-Rectifier Service Minimum Max Lmum
Fault	2000 A	Power-Rectifier Service Minimum Max Lmum
Above	60 C	Power-Rectifier Service Minimum Max Lmum
Peak	20000 V	Power-Rectifier Service Minimum Max Lmum
Forward	100 V	Power-Rectifier Service Minimum Max Lmum
Peak	6000 A	Power-Rectifier Service Minimum Max Lmum
Average	90 A	Power-Rectifier Service Minimum Max Lmum
Averaging Time	10 s	Power-Rectifier Service Minimum Max Lmum
Jonization Time	10 us	Power-Rectifier Service Minimum Max Lmum
Negative Voltage	5 V	Power-Rectifier Service Minimum Max Lmum



SOURCE DATA APPENDIX

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 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transformer voltage max	2 x 300 V RMS	—
DC output current max	75 mA	—
Filter capacitance max	32 uF	—

1999 PHILIPS 0-D
Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transformer voltage max	2 x 300 V RMS	—
DC output current max	75 mA	—
Filter capacitance max	32 uF	—

TUBE TINKER

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

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