



ELECTRONIC TUBE REFERENCE

249A

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Directly heated mercury-vapor half-wave rectifier; 2.5 V, 7 A filament; 6.5 kV peak inverse voltage; 1.1 A peak current.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	4
NOMINAL HEATER	2.5 V / 7 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	6500 V
NOMINAL OUTPUT CURRENT	400 mA
PEAK FORWARD CURRENT	1.1 A
FORWARD VOLTAGE DROP	15 V
Western Electric 249A mercury-vapor half-wave rectifier. 0.4 A is the specified load current for a single-phase half-wave circuit at 2,000 V; not an unrestricted maximum. Conducting voltage drop 5-25 V, approximately 15 V nominal. Safe ambient 0-50 °C. Other published multi-tube circuits: 2 tubes 2,000 V/0.8 A; 4 tubes 4,000 V/0.8 A; 6 tubes 6,000 V/1.0 A.	

Western Electric 249A is a directly heated, half-wave mercury-vapor rectifier with an oxide-coated filamentary cathode, 2.5 V AC / 7 A filament, 6,500 V maximum peak inverse potential and 1.1 A maximum peak plate current. Approximate conducting anode-cathode drop is 15 V (5-25 V variation). Four-prong base with parallel-connected filament terminals and a separate top anode connection; operate vertically, base down.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1933 Western Electric Tubes

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

1933 WESTERN ELECTRIC TUBES

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-cathode conducting drop	5–25 V	Approximate conducting anode-cathode potential drop 15 V; varies 5–25 V.
Ambient Temperature	0–50 °C	Safe operating ambient temperature
Load Potential	2000 V	Single-phase half-wave; 1 tube; load current 0.4 A
Load Current	400 mA	Single-phase half-wave; 1 tube; load potential 2000 V
Load Current	800 mA	Single-phase double half-wave; 2 tubes; load potential 2000 V
Load Current	800 mA	Single-phase double half-wave, four-tube series circuit; load potential 4000 V
Load Current	1 A	Three-phase six-tube series Y circuit; load potential 6000 V



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric 200s

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

2026 WESTERN ELECTRIC 200S

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage	2.5 Volt	Filament Voltage 2.5 Volts, AC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal Filament Current	7 Amperes	Nominal Filament Current 7.0 Amperes
Forward Voltage Drop	5–25 V	Conducting anode-cathode voltage drop: approximately 15 V; varies 5–25 V with ambient temperature and plate current.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximmn Peak Plate Current	1.1 Amperes	Maximmn Peak Plate Current 1.1 Amperes
Maximum Peak Inverse Potential	6500 Volts	Maximum Peak Inverse Potential 6,500 Volts

TUBE TINKER

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