



ELECTRONIC TUBE REFERENCE

308B

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Western Electric directly heated power triode designed for Class A audio amplification. Its low amplification factor and roughly 250 W plate dissipation support substantial linear service, with published single-ended output around 50 W.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	14 V / 6 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	1070 Ω
TRANSCONDUCTANCE	0.0075 S
AMPLIFICATION FACTOR	8
MAXIMUM PLATE VOLTAGE	2250 V
MAXIMUM PLATE DISSIPATION	250 W
MAXIMUM CATHODE CURRENT	325 mA
<i>Promoted fields audited from printed ratings/characteristics; remaining published values preserved as parameters.</i>	

Air-cooled transmitting triode for Class A audio service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1956 Western Electric Tubes

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

1956 WESTERN ELECTRIC TUBES

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	14 V	—
HeaterOrFilamentCurrent	6 A	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Power Output	50 W	ClassA;Audio



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric 300s

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

2026 WESTERN ELECTRIC 300S

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	14 volt	Filament voltage 14 volts
Nominal filament current	6 amperes	Nominal filament current 6 amperes
Average thermionic emission	4 amperes	Average thermionic emission 4 amperes
Average Characteristics at	1500 volts	Average Characteristics at 1500 volts direct plate potential and minus 150 volts grid bias,
Amplification factor	8	Amplification factor 8

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1070 ohms	Plate resistance 1070 ohms
Grid to plate tranconductance	7500 micromhos	Grid to plate tranconductance 7500 micromhos
Direct plate voltage	1500 volt	Direct plate voltage 1500
Grid bias	-2 volts	Grid bias - 2 1 5 — 180 volts
Plate dissipation	240 watts	Plate dissipation. 240 210 watts
Load resistance plate-to-plate	5200 ohms	Load resistance plate-to-plate 5200 4280 ohms
Load resistance per tube	1300 ohms	Load resistance per tube 1300 1070 ohms
Direct plate voltage	1750 volt	Direct plate voltage 1750 1500 volts
Direct plate current	300 milliamperes	Direct plate current 300 300 milliamperes
Grid bias	-345 volts	Grid bias —345 to —460 —300 to —400 volts
Nominal power output	350 watts	Nominal power output 350 300 watts
Direct plate voltage	1250 volt	Direct plate voltage 1250 1000 volts
Grid bias	-320 volts	Grid bias —320 — 260 volts
fuse or circuit breaker should remove the plate voltage if the plate current exceeds	425 volt	fuse or circuit breaker should remove the plate voltage if the plate current exceeds 425 milliamperes.
circuit, reduced plate voltage or a series resistance of	1000 volt	circuit, reduced plate voltage or a series resistance of 1000 to 5000 ohms in the plate circuit should
A	5 volt	A 5% decrease in filament voltage reduces the thermionic emission approximately 25%. Either
A resistance of	30 ohms	A resistance of 30 to 40 ohms of ten watt rating is suitable.
voltages off,	30 volt	voltages off, 30% above normal voltage for 10 minutes followed by a longer period at normal voltage.
on the basis of	5 second	on the basis of 5% second harmonic distortion.
the plate voltage. For complete or	100 volt	the plate voltage. For complete or 100% modulation, the plate voltage varies from zero to twice
the peak power output under	100 volt	the peak power output under 100% modulation. In this case, since the plate voltage varies

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max. direct plate voltage	2250 volt	Max. direct plate voltage 2250 volts
Max. direct plate current	325 milliamperes	Max. direct plate current 325 milliamperes
Max. plate dissipation	250 watts	Max. plate dissipation 250 watts
Max. direct grid current	75 milliamperes	Max. direct grid current 75 milliamperes
Max. r-f grid current	5 amperes	Max. r-f grid current 5 amperes
Max. frequency for the above ratings	1.5 megacycles	Max. frequency for the above ratings 1.5 megacycles
Max. plate voltage for upper frequency limit of	4.5 volt	Max. plate voltage for upper frequency limit of 4.5 Mc 750 volts
Max. plate voltage for frequencies between	1.5 volt	Max. plate voltage for frequencies between 1.5 and 4.5 Mc in proportion.
Max. direct grid current	75 milliamperes	Max. direct grid current 75 75 milliamperes