



ELECTRONIC TUBE REFERENCE

705A

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Western Electric directly heated high-voltage rectifier with thoriated filament for specialized power supplies. Rated for approximately 35 kV peak inverse voltage, 100 mA DC output, and 500 mA peak current.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B4A	BASE PINS	4
NOMINAL HEATER	5 V / 5 A	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	35000 V
NOMINAL OUTPUT CURRENT	100 mA
PEAK FORWARD CURRENT	500 mA
FORWARD VOLTAGE DROP	300 V
Explicit alias/co-designation; values duplicated from the same approved source.	

Thoriated-filament high-voltage special-purpose rectifier rated to 30 kV peak inverse voltage.



SOURCE OPERATING CONDITIONS

1946 Standard Telephone and Cables

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

1946 STANDARD TELEPHONE AND CABLES

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode dissipation	60 W	—
Maximum peak anode current	600 mA	PIV=15kV
Maximum average anode current	150 mA	PIV=15kV



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 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	5 V	—
HeaterOrFilamentCurrent	5 A	—



1961 Tung Sol

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

1961 TUNG SOL
Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	5 V	Nominal
Heater current	5 A	Nominal
Filament voltage tolerance	5 %	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage drop at 365 mA	300 V	—

TUBE TINKER

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