

Forced-air-cooled low-mu linear power triode for Class AB and B audio or RF amplification. Manufacturer applications include broadcast, single-sideband transmitters, ultrasonic generators, and sonar pulse amplifiers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	6.5
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM CATHODE CURRENT	635 mA
Source-derived physical/electrical section.	

Westinghouse 7685 @ QOctober 1, 1940 LINEAR LOW-MU TRIODE TYPE 7685 The 7685 is a low-mu triode designed for service as a class AB, or class B linear amplifier in audio or r-f service. The 7685 is well suited for application in broedcast and single-sideband transmitters, ultrasonic gen- erators, and sonar pulse amplifiers. The forced air cooled anode is capable of dissipating 800 watts., The cathode is of indirectly-heated, oxide-coated, unipotential design. Maximum rotings apply te 60 megacycles. ELECTRICAL: CLASS ABPOWER AMPLIFIER T Cathode. oo Oxide-Coated Unipotential MAXIMUM RATINGS: Heater: Absaolute Maximum Valyes Voltage . o . o vt it e e e 5.0 VYolis DC Plote Voltage 4.0 max. Kilovolts Current . . . e e e e e 8.0 Amperes DC Grid Voltage® 0.0 ~800 max Volts Starting Current (Max.) , , 24 Amperes DC Plate Current. . . . oo i o iy v v 600 max Ma. Resistance (Cold} 0.1 Ohm DC Plate Power

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The	7685	The 7685 is a low-mu triode designed for service as a class AB, or class B linear amplifier in audio or r-f
erators, and sonar pulse amplifiers. The forced air cooled anode is capable of dissipating	800	erators, and sonar pulse amplifiers. The forced air cooled anode is capable of dissipating 800 watts., The
cathode is of indirectly-heated, oxide-coated, unipotential design. Maximum ratings apply to	60	cathode is of indirectly-heated, oxide-coated, unipotential design. Maximum ratings apply to 60 megacycles.
Voltage	5	Voltage 5.0 Volts
DC Plate Voltage	4	DC Plate Voltage 4.0 max. Kilovolts
Current	8	Current 8.0 Amperes
DC Grid Voltage®	800	DC Grid Voltage® 0.0 ~800 max Volts
Starting Current (Max.)	24	Starting Current (Max.) 24 Amperes
DC Plate Power Input®	1.5	DC Plate Power Input® 1.5 max. Kilowatts
Minimum Filament Heating Time	120	Minimum Filament Heating Time 120 Seconds
Plate Dissipation#,	600	Plate Dissipation#, 600 max Watts
Amplification Factor	6.5	Amplification Factor. 6.5
Cathode to Plate	550	Cathode to Plate 0.6 0.6 papf DC Grid Voltage 550 Volts
Peak A-F Grid-to-Grid Voltage.	1100	Peak A-F Grid-to-Grid Voltage. 1100 Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Signal Plate Current	0.635	Maximum Signal Plate Current. 0.635 Amperes
Maximum Incoming Air Temperature	45	Maximum Incoming Air Temperoture 45°C
Maximum Signal Power Output	1550	Maximum Signal Power Output. 1550 Watts
Maximum Glass Temperature,	180	Maximum Glass Temperature, 180 °C a The tube may be supported aither by the anode or by use of o
.640° DIA.	640	.640° DIA.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resistance (Cold}	0.1	Resistance (Cold} 0.1 Ohm
Effectiva Plate-to-Plate LLoad Resistance	12300	Effectiva Plate-to-Plate LLoad Resistance. . . 12300 Ohms
Plate Dissipation	100000	Plate Dissipation. 200 400 400 Watts [::] Grid circuit resistance should not exceed 100000 ohms,

TUBE TINKER

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