

Westinghouse hard-tube pulse-modulator triode designed for high-voltage pulsed power service. Its ratings and operating information emphasize pulse switching and modulation rather than continuous RF amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	8 V / 180 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	30000 V
MAXIMUM PLATE DISSIPATION	8000 W
MAXIMUM CATHODE CURRENT	100 A
Source-derived physical/electrical section.	

Westinghouse November 15, 1949 HARD TUBE PULSE MODULATOR TYPE 7750 The 7750 is a three-electrode tube designed for service as a hard tube modulator, The forced-air cooled anode is capable of dissipating 8 kilowatts. The cathode is a thoriated tungsten filament which may be operated with either d-c or single-phase a-c. ELECTRICAL: MAXIMUM RATINGS: Cathode. v ... Thoriated Tungsten Filament Absolute Maximum Valuves Filameni: DC Plate Voltage. oo v vn s 30 max. Kilovolts Voltage {(d-c or single phosea-c)} 8 Volts DC Grid Voltoge,.... —2500 mox. Volrs CUITENE v v v et e e e e s e e e e 180 Amperes Peak Positive Grid Voltoge 2000 max, Yol1s Heating Time {minimuem) 15 Seconds Peak Pulse Plate Current B0 mox, Ampares Amplification

Factor., .. 20 Peak Pulse Grid Current, ... 20 max, Amperes Plate Dissipation 8
mox. Kilowatts Grid Dissipation oo v v 80

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
capable of dissipating	8	capable of dissipating 8 kilowatts. The cathode is a thoriated tungsten filament which may be operated with
Filament: DC Plate Voltage. 00 v v n s	30	Filament: DC Plate Voltage. 00 v v n s 30 max. Kilovolts
Voltage {(d-c or single phase-a-c)}	-2500	Voltage {(d-c or single phase-a-c)} 8 Volts DC Grid Voltage, ---2500 max. Volts
CUITENE v v v et e e e e e s e e e e	180	CUITENE v v v et e e e e e s e e e e 180 Amperes Peak Positive Grid Voltage . .
Heating Time {minimum}	15	Heating Time {minimum} 15 Seconds Peak Pulse Plate Current B0 max, Amperes
Amplification Factor., ..	20	Amplification Factor., .. 20 Peak Pulse Grid Current, .. 20 max, Amperes
Plate Dissipation	8	Plate Dissipation 8 max. Kilowatts
PulseLength	1000	PulseLength 1000 max. Microseconds
MECHANICAL : Peak Pulse Cathode Current	100	MECHANICAL : Peak Pulse Cathode Current 100* max. Amperes
Mounting Position Vertical, Anode Down * Peak pulse cathode current of	200	Mounting Position Vertical, Anode Down * Peak pulse cathode current of 200 amperes is allowable on
Required Air Flow Through Radiator: to	10	Required Air Flow Through Radiator: to 10.0 volts.
Plate Dissipation v on	8	Plate Dissipation v on 6 8 Kilowatts
Static Back Pressure	1	Static Back Pressure 0.6 10 in. Hzo

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Bulb Temperoture y, Maximum Bulb Temperoture y,	180	Maximum Bulb Temperoture y, 180°C
with Plote Amp s {	0	with Plote Amp s {80- -- .e0 10,0 Volis
With Plate Amps)	80	With Plate Amps) 80--
tg = B0	0	tg = BO -0 r- IBQ Amperes
210 Amperes	210	210 Amperes

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