



ELECTRONIC TUBE REFERENCE

ESA1500

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Forced-air-cooled thoriated-tungsten power triode designed specifically for industrial induction and dielectric RF-heating equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	8 V / 26 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	32000 Ω
TRANSCONDUCTANCE	0.0075 S
AMPLIFICATION FACTOR	24
MAXIMUM PLATE VOLTAGE	6000 V
MAXIMUM PLATE DISSIPATION	3000 W
MAXIMUM GRID DISSIPATION	200 W
MAXIMUM CATHODE CURRENT	1.5 A
Class-C industrial-heating maximum ratings promoted; additional Class-B data retained as parameters.	

Directly heated thoriated-tungsten forced-air-cooled triode intended for induction and dielectric heating equipment, with a 6 kV maximum anode rating and 3 kW anode dissipation.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 AEI Industrial Valves

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

1961 AEI INDUSTRIAL VALVES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MaximumOperatingFrequencyAtMaximumRatings	40 MHz	—
MinimumCoolingAirflow	300 ft3/min	ForcedAir

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Grid Capacitance	11.5 pF	—
AnodeFilamentCapacitance	0.8 pF	—
GridFilamentCapacitance	14.5 pF	—
CharacteristicAnodeVoltage	5000 V	—
CharacteristicAnodeCurrent	400 mA	—
Perveance	0.56 mA/V ^{1.5}	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Associated Electrical Industries

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

1961 ASSOCIATED ELECTRICAL INDUSTRIES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak cathode current	6 A	—
Maximum operating frequency	40 MHz	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum main air flow	300 ft ³ /min	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1962 ITT

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

1962 ITT

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum usable emission	6 A	—
Plate resistance	32000 ohm	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-plate capacitance	11.5 pF	—
Grid-filament capacitance	14.5 pF	—
Anode-filament capacitance	0.8 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage	6000 V	—
Maximum anode current	1.5 A	—
Maximum anode dissipation	3000 W	—
Maximum grid dissipation	200 W	—
Maximum grid current	330 mA	—
Maximum negative grid bias	-1000 V	—
Maximum frequency	40 MHz	—
Typical oscillator output at 4 kV	3.5 kW	—
Typical oscillator output at 5 kV	5.3 kW	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical oscillator output at 6 kV	6.3 kW	—