



ELECTRONIC TUBE REFERENCE

RD50YA

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Directly heated Tesla 50 kW industrial power triode designed particularly as an RF-heating oscillator. With about 20 kV plate capability, it provides enormous continuous oscillator power at frequencies to roughly 10 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	18.5 V / 360 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	5000 Ω
AMPLIFICATION FACTOR	50
MAXIMUM PLATE VOLTAGE	20000 V
MAXIMUM PLATE DISSIPATION	50000 W
MAXIMUM GRID DISSIPATION	3000 W
<i>Published characteristic ranges are preserved in parameters when no single scalar is printed.</i>	

The tube TESLA RD50YA (E3) is a directly Die TESLA-Rohre RD50YA (E3) ist eine heated triode of 50 kW anode dissipation, direkt geheizte Triode von 50 kW Anoden- intended for use as an oscillator at fre-verlustleistung, bestimmt zum Einsatz als guencies up to 10 Mc/s in industrial genera- Oszillator bei Frequenzen bis 10 MHz in tors for RF heating, especially in generators Industriegeneratoren für Hochfrequenzer- of types the GY21 and GV201. hitzung, insbesondere in Generatoren der Typen GV21 und GV201.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tesla

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

195X TESLA

Section 1 · Triode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	18.5 V	Nominal or midpoint of published heater range
Heater current	360 A	Nominal or midpoint of published heater range

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode dissipation	50000 W	Published tube rating



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tesla Tubes

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

1966 TESLA TUBES

Section 1 · Triode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	17.5–19.5 V	—
Heater current	340 A–380 A	—
Maximum plate voltage	20000 V	—
Maximum plate dissipation	50000 W	—
Maximum control-grid dissipation	3000 W	—
Maximum frequency	10 MHz	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Amplification factor	50	—
Plate resistance	5000 ohm	—

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