

ELECTRONIC TUBE REFERENCE

YD1178

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

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Water-cooled high-power RF triode for industrial oscillator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5.8 V / 130 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	436.364 Ω
TRANSCONDUCTANCE	0.055 S
AMPLIFICATION FACTOR	24
MAXIMUM PLATE VOLTAGE	12000 V
MAXIMUM PLATE DISSIPATION	15000 W
MAXIMUM CATHODE CURRENT	5 A
High-power RF triode; published principal characteristic and limiting values promoted.	

Water-cooled YD1178 variant with integral water cooler, covered on the YD1174/YD1178 sheet. Published filament, capacitance, limiting-rating, and representative Class-C industrial oscillator data were extracted from the supplied Philips sheet.

SOURCE OPERATING CONDITIONS

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament voltage	5.8 V	—
Filament current	130 A	—
Transconductance	55000 μ S	—
Amplification factor	24	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to filament capacitance	1 pF	—
Grid to filament capacitance	47 pF	—
Anode to grid capacitance	25 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage	12000 V	—
Maximum anode current	5 A	—
Maximum anode dissipation	15000 W	—
Operating frequency	27.12 MHz	IndustrialClassC
Operating anode voltage	10000 V	IndustrialClassC;Frequency=27.12MHz
Operating anode current	4 A	IndustrialClassC;Frequency=27.12MHz
Anode output power	30800 W	IndustrialClassC;Frequency=27.12MHz
Frequency for full ratings	120 MHz	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling system	Water	—

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