



ELECTRONIC TUBE REFERENCE

2D21W

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
THYRATRON

Ruggedized xenon-filled four-electrode thyatron for switching, pulse modulation, relay, and grid-controlled rectifier service under shock and vibration.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Thyatron	
MAXIMUM CATHODE CURRENT	100 mA
PEAK INVERSE VOLTAGE	1300 V
NOMINAL OUTPUT CURRENT	200 A
PEAK FORWARD CURRENT	500 A
FORWARD VOLTAGE DROP	8 V
MAXIMUM HEATER-CATHODE VOLTAGE	100 V
WARM-UP TIME	10 s
Four-electrode thyatron; specialized firing and pulse ratings are preserved in parameters.	

The 2D21W is a ruggedized xenon-filled four-electrode thyatron with negative-control characteristics, designed for switching, pulse-modulator, relay and grid-controlled rectifier service and strengthened for shock and vibration.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 RCA Industrial and Communications Types

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

1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Thyatron

CROSSREFERENCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Prototype / equivalent family	2D21	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Military specification	MIL-E-1/756B	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Thyatron

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AnodeToCathodeShieldCapacitance	2.4 pF	—
ControlGridToCathodeCapacitance	1.6 pF	—

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AnodeControlDelay	35 us	PulseService

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage Drop	8 V	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Thyatron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-control-grid capacitance	0.026 pF	WholeTube
Control-grid-to-cathode capacitance	2.4 pF	WholeTube
Anode-to-cathode capacitance	1.6 pF	WholeTube

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum cathode heating time	10 s	Characteristic
De-ionization time	35 μs	GridVoltageMinus100V Anode125V AnodeCurrent0.1A
Ionization time	0.5 μs	Characteristic
Anode voltage drop	8 V	Characteristic
Peak inverse anode voltage	1300 V	RelayGridControlledRectifier
Peak forward anode voltage	650 V	RelayGridControlledRectifier
Peak cathode current	500 mA	RelayGridControlledRectifier
Average cathode current	200 mA	RelayGridControlledRectifier
Surge cathode current	10 A	RelayGridControlledRectifier
Maximum pulse time	5 μs	PulseModulator
Maximum frequency	500 pps	PulseModulator