

ELECTRONIC TUBE REFERENCE

5643

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
THYRATRON

Subminiature xenon-filled shield-grid thyatron for switching, counter, and grid-controlled rectifier service in compact electronic equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Thyatron	
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM CATHODE CURRENT	16 mA
PEAK INVERSE VOLTAGE	500 V
FORWARD VOLTAGE DROP	12.5 V
WARM-UP TIME	10 s
Published characteristics and ratings promoted where clearly recoverable from source.	

Subminiature xenon-filled shield-grid thyatron for switching, counter, and grid-controlled rectifier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Thyatron

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal value
Heater or filament current	150 mA	Published nominal value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Thyatron

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	6.3 V	—
HeaterOrFilamentCurrent	150 mA	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Forward Anode Voltage	500 V	—
Peak Inverse Anode Voltage	500 V	—



1958 Compagnie General

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

1958 COMPAGNIE GENERAL

Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Inverse Anode Voltage	500 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Grid-controlled rectifier / relay	—

[SOURCE DATA APPENDIX](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	150 mA	Nominal
Maximum cathode current	100 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum cathode heating time	10 s	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-control-grid capacitance	0.03 pF	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse anode voltage	500 V	Switching
Peak forward anode voltage	500 V	Switching
Peak cathode current	100 mA	Switching
Average cathode current	25 mA	Switching
Surge cathode current	1 A	0.1Second

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage drop	12.5 V	—
Critical grid current	0.5 uA	Ebb=350Vrms
Minimum cathode heating time	10 s	—
De-ionization time	15 us	Grid=-100V
De-ionization time	25 us	LowNegativeGridVoltage

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode-to-control-grid capacitance	0.084 pF	—
Control-grid-to-cathode capacitance	1.33 pF	ShieldGridIncluded

196X Bendix

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

196X BENDIX
Section 1 · Thyatron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Published datasheet value; see source context.
Plate Voltage	8 V	Published datasheet value; see source context.
Cathode Current	16 mA	Published datasheet value; see source context.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	150 mA	Published datasheet value; see source context.
Plate Current	16 mA	Published datasheet value; see source context.