

ELECTRONIC TUBE REFERENCE

PL5727

Specialized - Thyatron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
THYRATRON

Inert-gas tetrode thyatron for relay, servo-control, controlled-rectifier, and pulse-modulator service. Grid triggering provides versatile electronic switching.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Thyatron	
MAXIMUM PLATE VOLTAGE	650 V
MAXIMUM CATHODE CURRENT	100 mA
PEAK INVERSE VOLTAGE	1300 V
PEAK FORWARD CURRENT	500 mA
WARM-UP TIME	10 s
Inert-gas-filled tetrode thyatron for relay, servo-control, controlled-rectifier and pulse-modulator service.	

Inert-gas-filled tetrode thyatron for relay, servo-control, controlled-rectifier and pulse-modulator service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V3

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V3

Section 1 · Thyatron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Chauffage : indirect If	600 mA	Chauffage : indirect If = 600 mA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical value	10 s	1)If urgently wanted Tw may. be decreased • to min. 10 sea.
Arc voltage drop	8 V	Typical characteristics Varc = 8 V
Ionization time	0.5 µsec	Typical characteristics Tion = 0.5 µsec
Deionization time	125 V	Typical characteristics Tdion (Vb=125V; Ia=0.1A; Vg1=-100V) = 35 µsec
Deionization time	1 A	Typical characteristics Tdion (Vb=125V; Ia=0.1A; Vg1=-100V) = 35 µsec
Deionization time	-100 V	Typical characteristics Tdion (Vb=125V; Ia=0.1A; Vg1=-100V) = 35 µsec
Deionization time	35 µsec	Typical characteristics Tdion (Vb=125V; Ia=0.1A; Vg1=-100V) = 35 µsec
Grid-1 voltage	125 V	Typical characteristics 'rdion (Vb=125V; Ia=0.1A; Vg1= -11v) = 75 µsec
Grid-1 voltage	-11 v	Typical characteristics 'rdion (Vb=125V; Ia=0.1A; Vg1= -11v) = 75 µsec
Grid-1 voltage	75 µsec	Typical characteristics 'rdion (Vb=125V; Ia=0.1A; Vg1= -11v) = 75 µsec
Peak inverse anode voltage	1300 V	Limiting values Va invp = max. 1300 V
Peak anode voltage	650 V	Limiting values Vap = max. 650 V
Peak cathode current	500 mA	Limiting values Ikp = max. 500 mA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode current	30 s	Limiting values Ik (Tav = max. 30 sec.) = max. 100 mA
Cathode current	100 mA	Limiting values Ik (Tav = max. 30 sec.) = max. 100 mA
Isurge (max	0.1 s	Limiting values Isurge (max. 0.1 sec.) = max. 10 A
Isurge (max	10 A	Limiting values Isurge (max. 0.1 sec.) = max. 10 A
Vg	1 ma	Limiting values -Vg1 max. 100 V1)
Vg	100 V	Limiting values -Vg1 max. 100 V1)
Vg	1 ma	Limiting values -Vg1 max. 10 V2)
Vg	10 V	Limiting values -Vg1 max. 10 V2)
Grid trigger current	10 mA	Limiting values Igt = max. 10 mA3)
Grid-2 voltage	100 v	Limiting values -Vg2 = max. 100 v 1)
Grid-2 voltage	10 v	Limiting values -Vg2 = max. 10 v2)
Grid-2 current	10 mA	Limiting values Ig2 = max. 10 mA3)4)
Heater-cathode voltage	100 V	Limiting values Vkf (k pos.; f neg.) = max. 100 V
Heater-cathode voltage	25 V	Limiting values Vkf (k neg.; f pos.) = max. 25 V
Peak inverse anode voltage	100 V	Limiting values Va invp = max. 100V
Cathode current	10 mA	Limiting values Ik = max. 0.01 A
Grid-1 current	20 mA	Limiting values Ig1 = max. 20 mA
Grid-2 voltage	50 v	Limiting values -vg2 = max. 50 v1)
Grid-2 voltage	10 V	Limiting values -vg2 = max. 10 V2)
Grid-2 current	20 mA	Limiting values Ig2 = max. 20 mA 4)
Heater-cathode voltage	0 V	Limiting values Vkf = max. 0 V
)After the completion of a pulse. a	20 μsec	Limiting values)After the completion of a pulse. a 20 μsec. delay 1s
)After the completion of a pulse. a	1 s	Limiting values)After the completion of a pulse. a 20 μsec. delay 1s
required before a positive voltage of more than	10 V	Limiting values required before a positive voltage of more than 10 V is
Grid-2 voltage	0 V	Limiting values Vg2=0V
Va	25 V	Limiting values Va =25V
Published electrical value	20 V	Limiting values 20 Vg1(V) -15 -10 -5 0

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode current	25 mA	Limiting values Ia =25mA _~-. ;

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitances Cg	2.4 pF	Capacitances Capacitances Cg 1 = 2.4 pF
Capacites 0.0Z	6 pF	Capacitances Capacites 0.OZ6 pF



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Thyatron

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	600 mA	—
Heating : indirect Ve	6.3 a	Heating : indirect Ve = 6,3V
Capacitances 051	2.4 a	Capacitances 051 = 2,4 pF
Varc 8V	8 V	Varc 8V
Varc	8 V	Varc = 8V
Capacitances Ce1 2,4 pF	2.4 a	Capacitances Ce1 2,4 pF
Capacitances Cg1 2.4 pF	2.4 a	Capacitances Cg1 2.4 pF
recommandé d'insérer une resistance série de 1000 Q dans	1000 ma	recommandé d'insérer une resistance série de 1000 Q dans
required before a positive voltage of more than 10 V is	10 a	required before a positive voltage of more than 10 V is

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

