

ELECTRONIC TUBE REFERENCE

6814

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

Subminiature triode designed specifically for electronic-computer switching service, combining compact construction with characteristics suited to digital logic circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9A	BASE PINS	9
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9A - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2P	B	P – Plate (Anode)	CONNECTED
PIN2 – 2G1	B	G1 – Control Grid	CONNECTED
PIN3 – 2K	B	K – Cathode	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – 1P	A	P – Plate (Anode)	CONNECTED
PIN7 – 1G1	A	G1 – Control Grid	CONNECTED
PIN8 – 1K	A	K – Cathode	CONNECTED
PIN9 – HCT	–	HCT – Heater Center Tap	CONNECTED

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	29
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published maximum ratings, representative operating conditions, and available capacitance/rectifier data reviewed.</i>	

Subminiature computer triode designed for electronic-computer switching 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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	150 mA	Nominal
Maximum Plate Voltage	275 V	—
Maximum Plate Dissipation	2.2 W	—
Maximum Cathode Current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6000 μ S	Typical
Amplification Factor	29	Typical
Plate Resistance	4800 ohm	Typical



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	Published handbook rating
Plate voltage	250 V	ClassA
Control-grid bias	8.5 V	ClassA
Plate current	10.5 mA	ClassA
Alternate plate voltage	100 V	ClassA OperatingPoint2
Alternate control-grid bias	0 V	ClassA OperatingPoint2
Alternate plate current	11.8 mA	ClassA OperatingPoint2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	7700 ohm	Published handbook characteristic
Transconductance	2200 μ S	Published handbook characteristic
Amplification factor	17	Published handbook characteristic
Heater/filament voltage	6.3 V	Published heater/filament rating
Heater/filament current	350 mA	Published heater/filament rating
Alternate plate resistance	6250 ohm	ClassA OperatingPoint2
Alternate transconductance	3100 μ S	ClassA OperatingPoint2
Alternate amplification factor	19.5	ClassA OperatingPoint2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	1.6 pF	Published capacitance column
Output capacitance	0.5 pF	Published capacitance column
Grid-to-plate capacitance	1.5 pF	Published capacitance column



SOURCE DATA APPENDIX

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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	150 mA	—
Application	Pulse amplifier inverter cathode follower	HighSpeedDigitalComputer

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Heater Cathode Voltage	200 V	—
Peak Cathode Current	440 mA	—