ELECTRONIC TUBE REFERENCE

VR105

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
VOLTAGEREGULATOR

Cold-cathode glow-discharge voltage stabilizer for heaterless shunt regulation and reference service in electronic power supplies.

General characteristics

BASE DESIGNATION	4AJ	**BASE PINS**	4
NOMINAL HEATER	— / —	**PARALLEL HEATER**	— / —
HEATING	Indirect; cold cathode	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

4AJ - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN2 — K	A	K — Cathode	CONNECTED
PIN5 — P	A	P — Plate (Anode)	CONNECTED

Section ratings

SECTION1 Voltage Regulator

REGULATOR VOLTAGE	105 V
MINIMUM REGULATOR CURRENT	5 mA
MAXIMUM REGULATOR CURRENT	40 mA
STARTING VOLTAGE	115 V
MAINTAINING VOLTAGE	105 V

Glow-discharge voltage-regulator section.

VR105 is a VoltageRegulator device. Cold-cathode glow-discharge voltage regulator; also suitable for relaxation-oscillator and spark-over protection service.

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 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Operating voltage	**105 V**	—
Ionization voltage	**115 V**	—
Regulation over operating-current range	**2 V**	5to40mA

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Minimum DC operating current	**5 mA**	—
Maximum DC operating current	**40 mA**	—
Minimum anode supply voltage	**133 V**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

195X Raytheon Special Purpose Tubes

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

195X RAYTHEON SPECIAL PURPOSE TUBES

Section 1 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Operating voltage	**105 V**	—
Maximum regulation	**4 V**	5to40mA

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Minimum operating current	**5 mA**	—
Maximum operating current	**40 mA**	—
Minimum starting-voltage supply	**133 V**	—

SOURCE OPERATING CONDITIONS

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 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Regulation	**1 V**	5 to 30 mA

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Voltage Regulator

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
DC operating voltage	**105 V**	—
DC operating current minimum	**5—— mA**	—
DC operating current maximum	**——40 mA**	—

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
DC starting voltage	**135 V**	Approximate
Voltage regulation	**—5 V**	Ia=5-40mA

Tube Tinker

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