



ELECTRONIC TUBE REFERENCE

5651

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

VOLTAGEREGULATOR

Cold-cathode inert-gas precision voltage-reference tube operating near 86 V at low current, designed for regulated and precision electronic supplies.

GENERAL CHARACTERISTICS

BASE DESIGNATION	5B0	BASE PINS	7
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Voltage Regulator	
REGULATOR VOLTAGE	86 V
MINIMUM REGULATOR CURRENT	1.5 mA
MAXIMUM REGULATOR CURRENT	3.5 mA
STARTING VOLTAGE	115 V
MAINTAINING VOLTAGE	86 V
<i>Published electrical characteristics preserved in parameter rows; regulator-specific fields promoted where applicable.</i>	

Cold-cathode inert-gas voltage-reference tube operating near 86 V over a 1.5–3.5 mA current range.



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 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
OperatingVoltageMinimum	82 V	—
OperatingVoltageMaximum	92 V	—



SOURCE OPERATING CONDITIONS

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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 · Voltage Regulator

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Precision voltage reference	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum DC anode-supply voltage	115 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage regulation	1 V	—



SOURCE OPERATING CONDITIONS

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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
Operating voltage	86 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating current minimum	1.5 mA	—
Operating current maximum	3.5 mA	—



SOURCE OPERATING CONDITIONS

1962 Cerberus

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

1962 CERBERUS

Section 1 · Voltage Regulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Breakdown voltage A-K	115 V	—
Typical supply voltage	350 V	—
Typical operating current	2.5 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Stabilized voltage at 3.5 mA	92 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Stabilized voltage at 1.5 mA	82 V	—
Operating current	1.5–3.5 mA	—
Regulation over 1.5-3.5 mA	3 V	—
Voltage jumps	100 mV	1.5-3.5 mA
Life expectancy	10000— h	Exceeding



SOURCE DATA APPENDIX

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 · Voltage Regulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC operating current minimum	1.5 mA	ReferenceService
DC operating current maximum	3.5 mA	ReferenceService
Maximum shunt capacitor	0.02 uF	ReferenceService

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube voltage drop at 1.5 mA	84.5 V	ReferenceService
Tube voltage drop at 3.5 mA	86 V	ReferenceService
Anode breakdown voltage average	106 V	ReferenceService
Regulation	1.5 V	1.5To3.5mA