



ELECTRONIC TUBE REFERENCE

90C1

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

VOLTAGEREGULATOR

Gas-filled 90 V stabilizer with a broad approximately 1-40 mA operating range for heaterless reference and shunt-regulator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Miniature	BASE PINS	—
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	90 V
MINIMUM REGULATOR CURRENT	1 mA
MAXIMUM REGULATOR CURRENT	40 mA
STARTING VOLTAGE	115 V
MAINTAINING VOLTAGE	90 V
DYNAMIC IMPEDANCE	300 Ω
Gas-discharge device.	

Cold-cathode voltage stabilizer with approximately 90 V maintaining voltage.

SOURCE OPERATING CONDITIONS

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal maintaining voltage	90 V	—
Voltage variation over current range	14 V	—
Lifetime voltage change	1 %	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current range	1 to 40 mA	—
Nominal current	20 mA	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Regulation Maximum	14 V	AnodeCurrent=1-40mA

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V2

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V2

Section 1 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maintaining voltage at 20 mA	86–94 V	—
Voltage regulation	—14 V	Ia=1-40mA

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 Mullard Gas Filled Tubes

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

1971 MULLARD GAS FILLED TUBES

Section 1 · Voltage Regulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maintaining voltage	90 V	—
Incremental resistance	300 ohm	—
Regulation voltage	12 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ignition/striking voltage	115 V	—
Minimum cathode current	1 mA	—
Maximum cathode current	40 mA	—

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips 0-D

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

1999 PHILIPS 0-D

Section 1 · Voltage Regulator

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maintaining voltage range	86–94 V	Published datasheet value
Maximum regulation	—14 V	1–40 mA

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal operating current	20 mA	Published datasheet value
Maximum starting current	—100 mA	Tav max 10 s

TUBE TINKER

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