

ELECTRONIC TUBE REFERENCE

0A3

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
VOLTAGEREGULATOR

Gas-filled 75 V voltage regulator operating over approximately 5-40 mA for heaterless shunt stabilization and reference circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	4AJ	BASE PINS	8
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	75 V
MINIMUM REGULATOR CURRENT	5 mA
MAXIMUM REGULATOR CURRENT	40 mA
STARTING VOLTAGE	105 V
MAINTAINING VOLTAGE	75 V
DYNAMIC IMPEDANCE	100 Ω
Published maximum ratings and characteristics audited; remaining useful numerical data retained in parameter table.	

OA3 is a printed exact equivalent/co-designation on the STR7540 source sheet. A 75 V cold-cathode glow-discharge regulator with a radioactive starting aid; the source states that no harmful radiation is produced.

SOURCE OPERATING CONDITIONS

1946 Standard Telephone and Cables

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

1946 STANDARD TELEPHONE AND CABLES

Section 1 · Voltage Regulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum stabilising voltage at 40 mA	81 V	Published datasheet value
Maximum peak current	100 mA	Published datasheet value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum stabilising voltage at 5 mA	70 V	Published datasheet value

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	75 V	—
Voltage variation over current range	4 V	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current range	5 to 40 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal current	20 mA	—
Radioactive starting aid	present	No harmful radiation stated by source



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1955 Marconi

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

1955 MARCONI

Section 1 · Voltage Regulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VOLTAGE STABILISER QS1 [1]	50 V	VOLTAGE STABILISER QS150/40
VOLTAGE STABILISER QS1 [2]	40 V	VOLTAGE STABILISER QS150/40
Stability {([1]	1000	Stability {(1000 hr, period) *2 ¥2 %
Stability {([2]	2	Stability {(1000 hr, period) *2 ¥2 %
Stability {([3]	2	Stability {(1000 hr, period) *2 ¥2 %
Published value	10 mA	10 mA should be allowed in addition to the load current.
Stabilized voltage	75 V	Published regulated voltage.
Tube current minimum	5 mA	Minimum maintaining current.
Tube current maximum	40 mA	Maximum operating current.
Ignition voltage	105 V	Published minimum or maximum ignition/start voltage as applicable.



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 2 of 7

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

1971 RCA HB3 BINDER 2 OF 7

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average starting current	100 mA	—
DC cathode current	5 mA–40 mA	—
Ambient temperature range	-55 to +90 C	—
Maximum shunt capacitance	0.1 uF	—
Minimum DC anode supply voltage	105 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode breakdown / starting voltage	105 V	—
Anode voltage drop	68–85 V	—
Regulation over specified cathode-current range	—6.5 V	—

TUBE TINKER

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