

ELECTRONIC TUBE REFERENCE

0A3A

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

VOLTAGEREGULATOR

Improved 75 V gas voltage regulator for approximately 5-40 mA operation in stable reference and regulated-supply applications.

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	160 V
MAINTAINING VOLTAGE	75 V
Published ratings and characteristics promoted from approved datasheet.	

RCA OA3A is a cold-cathode glow-discharge voltage-regulator tube for maintaining a relatively constant DC output voltage despite load and supply variations. Its nominal regulated region is centered near 75 V.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Voltage Regulator

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	—
Anode breakdown voltage in total darkness	160 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode breakdown / starting voltage	160 V	—
Anode voltage drop	70–81 V	—
Regulation over specified cathode-current range	—6.5 V	—
Normal-light anode starting voltage	—105 V	—
Anode voltage drop at 30 mA	70–79 V	—
Anode voltage drop at 40 mA	70–81 V	—
Maximum tube noise at 40 mA	5 mV RMS	—
Maximum leakage current at 50-V supply	10 uA	—