

ELECTRONIC TUBE REFERENCE

OC3A

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
VOLTAGEREGULATOR

Improved approximately 105 V gas regulator operating over 5-40 mA, with starting voltage strongly dependent on ambient illumination.

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	
MAXIMUM CATHODE CURRENT	40 mA
REGULATOR VOLTAGE	105 V
MINIMUM REGULATOR CURRENT	5 mA
MAXIMUM REGULATOR CURRENT	40 mA
STARTING VOLTAGE	127 V
MAINTAINING VOLTAGE	105 V
105 V regulator; starting-voltage and regulation ranges preserved in parameters.	

OC3A is a cold-cathode glow-discharge voltage-regulator tube intended to hold a relatively constant DC output voltage as load and supply conditions vary. The supplied RCA data specifies a 5 to 40 mA regulating-current range along with starting-voltage, voltage-drop, and regulation characteristics.

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	Starting period <=10 s
DC cathode current maximum	—40 mA	Steady-state
DC cathode current minimum	5— mA	Steady-state
Ambient temperature minimum	-55— °C	—
Ambient temperature maximum	—90 °C	—
Shunt capacitor maximum	—0.1 μF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC anode starting voltage maximum	—210 V	Total darkness
DC anode starting voltage average	115 V	Normal ambient light 5 to 50 footcandles
DC anode starting voltage maximum	—127 V	Normal ambient light 5 to 50 footcandles
Anode voltage drop average	105 V	DC cathode current 5 mA
Anode voltage drop average	105–111 V	DC cathode current 30 mA
Anode voltage drop average	105–112 V	DC cathode current 40 mA
Regulation average	1 V	DC cathode current 5 to 30 mA
Regulation maximum	—2 V	DC cathode current 5 to 30 mA
Regulation average	2 V	DC cathode current 5 to 40 mA
Regulation maximum	—4 V	DC cathode current 5 to 40 mA
Tube noise maximum	—15 mV rms	DC cathode current 40 mA
DC leakage current maximum	—10 μA	DC anode supply 50 V; anode resistor 3000 ohms

TUBE TINKER

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