

ELECTRONIC TUBE REFERENCE

20AQ3

Rectifier - Damper Diode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
RECTIFIER

Miniature high-voltage booster diode designed for line-time-base circuits in transformerless television receivers; an energy-recovery device rather than a CRT EHT rectifier.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9CB	BASE PINS	9
NOMINAL HEATER	20.2 V / 450 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9CB - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IC	–	–	IC
PIN2 – IC	–	–	IC
PIN3 – IC	–	–	IC
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – IC	–	–	IC
PIN7 – IC	–	–	IC
PIN8 – IC	–	–	IC
PIN9 – P	A	P – Plate (Anode)	CONNECTED
CAP1 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Rectifier	
MAXIMUM PLATE DISSIPATION	5 W
PEAK INVERSE VOLTAGE	6000 V
NOMINAL OUTPUT CURRENT	220 mA
PEAK FORWARD CURRENT	550 mA
MAXIMUM HEATER-CATHODE VOLTAGE	6600 V
<i>Published ratings, characteristics, typical operation, rectifier/regulator data, and capacitances reviewed.</i>	

Miniature high-voltage booster diode used in line-time-base circuits of transformerless television receivers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) 16.4	20.2 V	Heater Voltage (ac/dc) 16.4 20.2 volts
Heater Current 0.6	450 mA	Heater Current 0.6 0.45 ampere
Peak Heater-Cathode Voltage 6600	6600 V	Peak Heater-Cathode Voltage 6600 6600 volts
Supply Voltage at zero current	550 V	Supply Voltage at zero current 550 volts
Supply Voltage	250 V	Supply Voltage 250 volts
Peak Plate Current	550 mA	Peak Plate Current 550 mA
Average Plate Current	220 mA	Average Plate Current 220 mA
Plate Dissipation	5 W	Plate Dissipation 5 watts
# The pulse duration must not exceed 22 per cent of a cycle, or a maximum of	18 us	# The pulse duration must not exceed 22 per cent of a cycle, or a maximum of 18 microseconds
Peak inverse/negative-pulse plate voltage	6000 V	Published section value
Average output/plate current	220 mA	Published section value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	20.2 V	Rated heater condition
Heater current	450 mA	Rated heater condition

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

