



ELECTRONIC TUBE REFERENCE

6AL3

Rectifier - Damper Diode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Television horizontal-deflection damper diode designed for energy recovery, with high inverse-voltage capability and substantial repetitive forward-current handling.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9C6	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.55 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
MAXIMUM PLATE DISSIPATION	5 W
PEAK INVERSE VOLTAGE	7500 V
NOMINAL OUTPUT CURRENT	220 mA
PEAK FORWARD CURRENT	550 mA
MAXIMUM HEATER-CATHODE VOLTAGE	6600 V
WARM-UP TIME	11 s
Damper rectifier; promoted from design-center ratings.	

Miniature type used as damper tube in horizontal-deflection circuits of black-and-white television receivers. Outlines section, 7D; requires miniature 9-contact socket. Socket terminals 1, 2, 3, 6, 7, and 8 should not be used as tie points. It is especially important that this tube, like other power-handling tubes, be adequately ventilated.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Rogers

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

1959 ROGERS

Section 1 · Rectifier

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Television booster / damper service	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak inverse voltage maximum	7500 V	DamperDiode
Peak anode current maximum	55 mA	DamperDiode
Average anode current maximum	22 mA	DamperDiode
Application	Booster/damper diode in television horizontal circuits	Section1



1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1.55 A	—
Peak inverse plate voltage	7500 V	—
Peak plate current	550 mA	—
DC plate current	220 mA	—
Plate dissipation	5 W	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-cathode-and-heater capacitance	8.6 pF	—
Heater-to-cathode capacitance	2 pF	—



SOURCE DATA APPENDIX

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	2300	Published value from supplied target entry
Load Resistance	10000 ohms	Published value from supplied target entry
Total Harmonic Distortion	10	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Plate Current	550 mA	Published value from supplied target entry
Average Plate Current	220 mA	Published value from supplied target entry
Peak Heater-Cathode Voltage	6600 volts	Published value from supplied target entry
Heater Voltage (ac/dc)	12.6 volts	Published value from supplied target entry
Peak Inverse Plate Voltage	330 volts	Published value from supplied target entry
Peak Plate Current (Per Plate)	54 mA	Published value from supplied target entry
AC Plate Voltage per Plate (rms)	117 volts	Published value from supplied target entry
Min. Total Effective Plate-Supply Impedance per Plate	300 ohms	Published value from supplied target entry
Average Output Current per Plate	9 mA	Published value from supplied target entry
Heater Current	0.45 ampere	Published value from supplied target entry
Heater Warm-up Time (Average)	11 seconds	Published value from supplied target entry

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max.-Sig. Power Output	1.1 watts	Published value from supplied target entry
Peak Inverse Plate Voltage* (Absolute maximum)	7600	Published value from supplied target entry
Peak Heater-Cathode Voltage ±	30 volts	Published value from supplied target entry