ELECTRONIC TUBE REFERENCE

12CL3

Rectifier - Damper Diode electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
RECTIFIER

Half-wave vacuum rectifier designed as a damper tube in television horizontal-deflection circuits, recovering sweep energy while withstanding high inverse voltage.

General characteristics

BASE DESIGNATION	9	**BASE PINS**	9
NOMINAL HEATER	12.6 V / 600 mA	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Rectifier

PEAK INVERSE VOLTAGE	5000 V
NOMINAL OUTPUT CURRENT	200 mA
PEAK FORWARD CURRENT	1.2 A
WARM-UP TIME	11 s

Promoted from published ratings/characteristics where directly applicable; additional published values retained in TUBE_SECTION_PARAMETER.

Half-wave vacuum rectifier used as a damper tube in television horizontal-deflection circuits.

SOURCE OPERATING CONDITIONS

1975 RCA RC30

SOURCE PDF

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**
Tube Voltage Drop for plate current of	**700 mA**	Published in approved 12CL3 target entry; Section1
Tube Voltage Drop for plate current of 700 mA	**25 V**	Published in approved 12CL3 target entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	**10 microseconds**	Published in approved 12CL3 target entry; Section1

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage (ac/dc) 6.3	**12.6 V**	Published in approved 12CL3 target entry; Section1
Heater Current 1.2	**600 mA**	Published in approved 12CL3 target entry; Section1
Heater Warm-up Time (Average)	**11 seconds**	Published in approved 12CL3 target entry; Section1
Peak Inverse Plate Voltage#	**5500 V**	Published in approved 12CL3 target entry; Section1
Peak Plate Current	**1300 mA**	Published in approved 12CL3 target entry; Section1
Average Plate Current	**250 mA**	Published in approved 12CL3 target entry; Section1
Plate Dissipation	**8.5 W**	Published in approved 12CL3 target entry; Section1
Bulb Temperature (At hottest point)	**220 °C**	Published in approved 12CL3 target entry; Section1
Peak value +300	**-5000 V**	Published in approved 12CL3 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Average value -j-100	**-900 V**	Published in approved 12CL3 target entry; Section1
Tube Voltage Drop for plate current of	**350 mA**	Published in approved 12CL3 target entry; Section1
Tube Voltage Drop for plate current of 350 mA	**16 V**	Published in approved 12CL3 target entry; Section1
# Pulse duration must not exceed 15% of a horizontal scanning cycle (	**10 microseconds**	Published in approved 12CL3 target entry; Section1
Heater Voltage (ac/dc)	**6.3 V**	Published in approved 12CL3 target entry; Section1
Heater Current	**650 mA**	Published in approved 12CL3 target entry; Section1

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate to Cathode and Heater	**6.5 pF**	Published in approved 12CL3 target entry; Section1
Cathode to Plate and Heater	**9 pF**	Published in approved 12CL3 target entry; Section1
Heater to Cathode	**3 pF**	Published in approved 12CL3 target entry; Section1
Grid No.l to Plate	**0.12 pF**	Published in approved 12CL3 target entry; Section1
and Internal Shield	**11 pF**	Published in approved 12CL3 target entry; Section1
and Internal Shield	**5.5 pF**	Published in approved 12CL3 target entry; Section1

Tube Tinker

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

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