



ELECTRONIC TUBE REFERENCE

CD55

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
NIXIE

Matsushita top-view cold-cathode Nixie displaying red digits 0–9 with low current, low drive voltage, and simple interface circuitry.

GENERAL CHARACTERISTICS

BASE DESIGNATION	–	BASE PINS	13
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Nixie	
MAXIMUM CATHODE CURRENT	2 mA
<i>Cold-cathode Nixie/display-discharge section. Maximum cathode current promoted from peak absolute-maximum rating.</i>	

Japanese datasheet for the CD55 cold-cathode numeral display tube. It displays digits 0 through 9 in red at the top of the tube; the digit arrangement is designed for clear outlines and a sharp display. The datasheet emphasizes low tube current, low drive voltage, and simple circuitry. Applications include industrial control systems, electronic computers, counters, channel indicators, elevator position displays, and other indicating equipment.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Nixie Matsushita

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

1966 NIXIE MATSUSHITA

Section 1 · Nixie

DISPLAY		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Display content	Digits 0-9	Top-view numeral display
Display color	Red	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode type	Cold cathode	—
Discharge starting voltage	—150 V	Maximum
Discharge extinction voltage	120— V	Minimum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	160— Vdc	Minimum specified plate supply
Cathode current	0.6–1 mA	Plate supply 160 Vdc; plate series resistance 15 kΩ
Cathode dissipation	—0.2 W	Each cathode
Peak cathode current	—2 mA	Absolute maximum
Average cathode current	0.5–1.5 mA	Absolute maximum range
Ambient temperature	-65–70 °C	Operating ambient range
Recommended plate series resistance	15 kΩ	Plate supply 160 Vdc
Recommended plate series resistance	57 kΩ	Plate supply 190 Vdc
Recommended plate series resistance	100 kΩ	Plate supply 220 Vdc
Recommended plate series resistance	143 kΩ	Plate supply 250 Vdc

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Recommended plate series resistance	186 kΩ	Plate supply 280 Vdc
Minimum cathode bias voltage	22— V	When cathode-bias voltage is applied
Bulb width maximum	—29.5 mm	From dimensional drawing
Overall height maximum	—30 mm	From dimensional drawing

BASE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Socket requirement	Special 13-pin socket	Datasheet notes use of a special 13-pin socket

TUBE TINKER

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