

ELECTRONIC TUBE REFERENCE

CD19

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
NIXIE

Compact Matsushita top-view cold-cathode Nixie displaying red digits 0-9, designed for low-current industrial controls, counters, computers, and position indicators.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	11
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Nixie	
MAXIMUM CATHODE CURRENT	2 mA
Cold-cathode Nixie/display-discharge section. Maximum cathode current promoted from peak absolute-maximum rating.	

Japanese datasheet for the CD19 cold-cathode numeral display tube. It displays digits 0 through 9 in red from the top of the envelope and is described as a compact, lightweight subminiature type with a simple low-current drive circuit, rugged construction, and long life. Applications include industrial control equipment, electronic computers, counters, channel indicators, elevators, and other display 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	—170 V	Maximum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	170— Vdc	Minimum specified plate supply
Cathode current	0.6–1.4 mA	Plate supply 170 Vdc; plate series resistance 20 kΩ
Cathode dissipation	—0.2 W	Each cathode
Peak cathode current	—2 mA	Absolute maximum
Average cathode current	0.6–1.4 mA	Absolute maximum range
Ambient temperature	-65–70 °C	Operating ambient range
Recommended plate series resistance	20 kΩ	Plate supply 170 Vdc
Recommended plate series resistance	51 kΩ	Plate supply 200 Vdc
Recommended plate series resistance	100 kΩ	Plate supply 250 Vdc
Recommended plate series resistance	150 kΩ	Plate supply 300 Vdc
Overall height maximum	—50 mm	From dimensional drawing

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Bulb width maximum	—15 mm	From dimensional drawing