



ELECTRONIC TUBE REFERENCE

Z505S

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
NIXIE

Cold-cathode bidirectional decade selector/counter designed for electronic counting, sequencing, and switching functions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
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 PLATE VOLTAGE	500 V
MAXIMUM CATHODE CURRENT	1 mA
<i>Cold-cathode discharge/display section; explicit published limits and operating data are retained as section parameters.</i>	

Z505S is a cold-cathode bi-directional decade selector/counter, classified as Nixie for this batch. The supplied datasheet was reviewed for operating conditions, ratings, and display/counting characteristics.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Nixie La Radiotechnique

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

1967 NIXIE LA RADIOTECHNIQUE

Section 1 · Nixie

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ignition/Starting Voltage	400 V	Published ignition/start value
Maintaining Voltage	260 V	Published maintaining/burning value
Minimum Cathode Current	0.6 mA	Published minimum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Recommended/Minimum Supply Voltage	475 V	Published operating condition
Maximum Cathode Current	1 mA	Published maximum/average maximum
Maximum Counting Frequency	50 kHz	Published general characteristic
Anode Load Resistance	330 kOhm	At 475 V anode supply
Anode Current	800 uA	At 475 V anode supply



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1969 Nixie Mullard

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

1969 NIXIE MULLARD

Section 1 · Nixie

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply Voltage	500 V	Published operating data

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Counting Speed	50 kHz	Published datasheet value
Anode Supply Voltage Minimum	400 V	Published datasheet value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Supply Voltage Maximum	1000 V	Published datasheet value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

196X Nixie Random Datasheets

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

196X NIXIE RANDOM DATASHEETS

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply Voltage	500 V	Published datasheet value
Maximum Counting Speed	50 kHz	Published datasheet value
Anode Supply Voltage Maximum	1000 V	Published datasheet value

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Supply Voltage Minimum	400 V	Published datasheet value
Maintaining Voltage Minimum	240 V	Published datasheet value
Maintaining Voltage Maximum	275 V	Published datasheet value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum counting speed	50 kHz	—
Supply voltage	500 V	—
Recommended cathode current	0.8 mA	—
Maintaining voltage minimum	240 V	—
Maintaining voltage maximum	275 V	—