

ELECTRONIC TUBE REFERENCE

GA11

Nixie electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
NIXIE

Side-viewing cold-cathode numerical display tube with shaped digit cathodes. Cerberus documentation and comparison data describe its glow-discharge operating characteristics, while specified character-switching intervals support extended-life numerical indication.

GENERAL CHARACTERISTICS

BASE DESIGNATION	Wire leads	BASE PINS	14
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Nixie	
MAXIMUM PLATE VOLTAGE	170 V
MAXIMUM CATHODE CURRENT	3.5 mA
Cold-cathode switching/relay/display section; device-specific glow-discharge values preserved in parameter table.	

GA11 is a cold-cathode Nixie numeric/symbol display tube. The supplied datasheet set identifies Z570M as a comparable RFT display type and provides ignition, burning and extinction voltages, cathode-current limits, environmental limits and mechanical/display data through that comparison.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Cerberus

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

1962 CERBERUS

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DigitHeight	15 mm	—
Cathode Current	1.5–3.5 mA	—
Anode Supply Voltage	220— V	—
Anode Resistor	47— kOhm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
BreakdownVoltage	130 V	—



SOURCE OPERATING CONDITIONS

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1965 Nixie Cerberus

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

1965 NIXIE CERBERUS

Section 1 · Nixie

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Digit Height	15 mm	Side viewing
Maximum Ignition Voltage	130 V	Published main characteristics
Minimum Cathode Current	1.5 mA	Published main characteristics
Maximum Cathode Current	3.5 mA	Published main characteristics

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Normal Cathode Current	2 mA	Published main characteristics
Minimum Supply Voltage	220 V	Lower supply voltages are not recommended unless stabilized
Recommended Anode Resistor	47 k0hm	At listed minimum supply voltage
Off-Cathode Bias Voltage Minimum	50 V	Off cathodes
Off-Cathode Bias Voltage Maximum	120 V	Off cathodes
Life Expectancy	10000 h	Digits switched sequentially at intervals of no more than 24 h



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 Nixie RFT

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

1971 NIXIE RFT

Section 1 · Nixie

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Ignition Voltage	150 V	Comparable RFT type Z570M
Anode Burning Voltage	140 V	Comparable RFT type Z570M
Anode Extinction Voltage	120 V	Comparable RFT type Z570M

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum Cathode Current	1.5 mA	Comparable RFT type Z570M
Maximum Cathode Current	2.5 mA	Comparable RFT type Z570M
Peak Cathode Current	12 mA	Comparable RFT type Z570M
Minimum Ambient Temperature	-50 degC	Comparable RFT type Z570M
Maximum Ambient Temperature	70 degC	Comparable RFT type Z570M
Symbol Height	13 mm	Comparable RFT type Z570M
Maximum Viewing Distance	8 m	Comparable RFT type Z570M

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Bulb Height	47.6 mm	Comparable RFT type Z570M
Maximum Bulb Diameter	19 mm	Comparable RFT type Z570M