Dieter's

Nixie Tube Data Archive

This file is a part of Dieter's Nixie- and display tubes data archive

If you have more datasheets, articles, books, pictures or other information about Nixie tubes or other display devices please let me know.
Thank you!

Document in this file	Raytheon CK7978 Dekatron tube datasheet Dated 1961
Display devices in this document	CK7978

File created by Dieter Waechter
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RAYTHEON

TECHNICAL INFORMATION SERVICE

Technical Information

CK 7978

DECADE COUNTER

The CK7978 is a cold cathode gas-filled 5 KC medium speed bi-directional ring stepping decade counter tube. This type features direct visual neon glow readout or electrical readout in the form of a voltage from any of the cathode leads. Negligible power dissipation, short resolution time, simple low cost circuitry, and no moving parts make this a very reliable counter device. Some of the many uses for this type include counting, timing, sampling, frequency dividing, coding, matrixing, telemetering, and controlling.

ELECTRICAL DATA

RATINGS—ABSOLUTE MAXIMUM VALUES:

Total Anode Current Maximum	0.60	Ma
Total Anode Current Minimum	0.30	Ma
Voltage Between Electrodes (Excluding Anode)	200	volts
Supply Voltage (Anode to Cathode)—Minimum	350	volts
Minimum Transfer Voltage	35	volts
Input Frequency	5000	cps

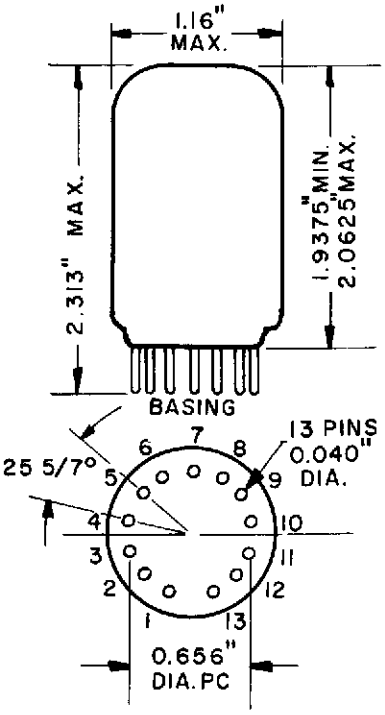
CHARACTERISTICS AND TYPICAL OPERATION:

DC Supply Voltage	425	volts
Anode Resistor	0.68	megohms
Nominal Tube Drop	190	volts
Guide Bias—Minimum	35	volts
Cathode Resistor	100	K ohms
Output Voltage (Across Cathode Resistor)	30	volts
Double Pulse Drive Amplitude—Minimum	−75	volts
Double Pulse Drive Duration—Minimum	60	μsec.
Double Pulse Drive Overlap	10	μsec.
Reset Pulse Width—Minimum	50	μsec.
Forced Reset Pulse Amplitude—Minimum	−120	volts

MECHANICAL DATA

ENVELOPE.....T-9 Glass
BASE .....13 Pin
MOUNTING POSITION.....Any
(Visual Readout From top of Tube)
ZERO POSITION ..... Cathode #0 (Aligned with Pin Number 8 ±10°)

PHYSICAL DIMENSIONS



TERMINAL CONNECTIONS

Pin 1	Anode
Pin 2	Cathode #5
Pin 3	Cathode #4
Pin 4	Guide #2
Pin 5	Cathode #3
Pin 6	Cathode #2
Pin 7	Cathode #1
Pin 8	Cathode #0
Pin 9	Cathode #9
Pin 10	Guide #1
Pin 11	Cathode #8
Pin 12	Cathode #7
Pin 13	Cathode #6

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