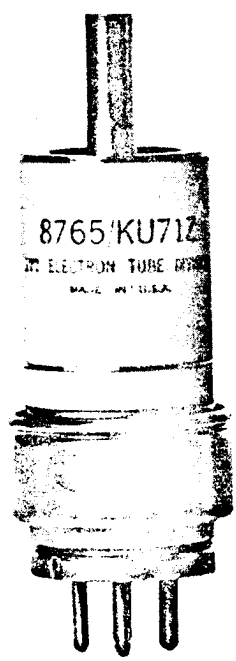
ELECTRON TUBE DIVISION
P.O. Box 100
Easton, Pennsylvania 18042
Telephone 215 252-7331

8765/KU-71Z

CERAMIC HYDROGEN THYRATRON



DESCRIPTION

The 8765/KU-71Z is a hydrogen thyratron of ceramic metal construction designed for use in compact modulators of high performance radars and for missile applications. This electron tube features a hydrogen reservoir which is internally connected directly across the cathode heater.

The tube is a plug-in replacement for the KU-17, 5957 and 8370 glass hydrogen thyratrons, and is recommended where long-life, high reliability performance is vital.

GENERAL CHARACTERISTICS

ELECTRICAL	Nom.	Min.	Max.	
Heater Voltage	6.3	5.8	6.8	Volts AC
Heater Current (at 6.3 volts)	6.5	4.5	9.5	Amperes
Minimum Heating Time		3		Minutes

MECHANICAL

Mounting Position	Any	
Dimensions	Per Outline	
Cooling	See Note 6	

MAXIMUM RATINGS

Max. Peak Anode Voltage, Forward	12.0	Kilovolts
Max. Peak Anode Voltage, Inverse (Note 1)	12.0	Kilovolts
Min. Anode Supply Voltage	0.3	Kilovolts DC
Max. Peak Anode Current	350.0	Amperes
Max. Average Anode Current	200.0	Milliamperes
Max. RMS Anode Current (Note 2)	5.0	Amperes AC
Max. epy x ib x prr (Pb number)	4.0×10^9	
Max. Anode Current Rate of Rise	2000	Amps./u sec.
Peak Trigger Voltage (Note 3)	600	Volts
Max. Anode Delay Time (Note 4)	0.50	u second
Max. Anode Delay Time Drift	0.10	u second
Max. Time Jitter (Note 5)	.005	u second
Ambient Temperature	-50° to $+150^\circ$	C

NOTE 1 The peak inverse voltage should not exceed 2.5 KV during the first 25 microseconds after pulse.

NOTE 2 The root mean square anode current shall be computed as the square root of the product of the peak current and the average current.

8765/KU-71Z

NOTE 3 The driver pulse, measured at the tube socket with the thyratron grid disconnected should have the following characteristics:

A.	Voltage	175-600 Volts
B.	Duration	1-2 Microseconds
C.	Impedance	1500 Ohms (max.)
D.	Time of Rise	0.5 Microsecond (max.)

The limits of anode time delay and anode time jitter are based on the minimum trigger. Using a fast rise trigger with the highest permissible trigger voltage and lowest trigger source impedance materially reduces these values below the limits specified.

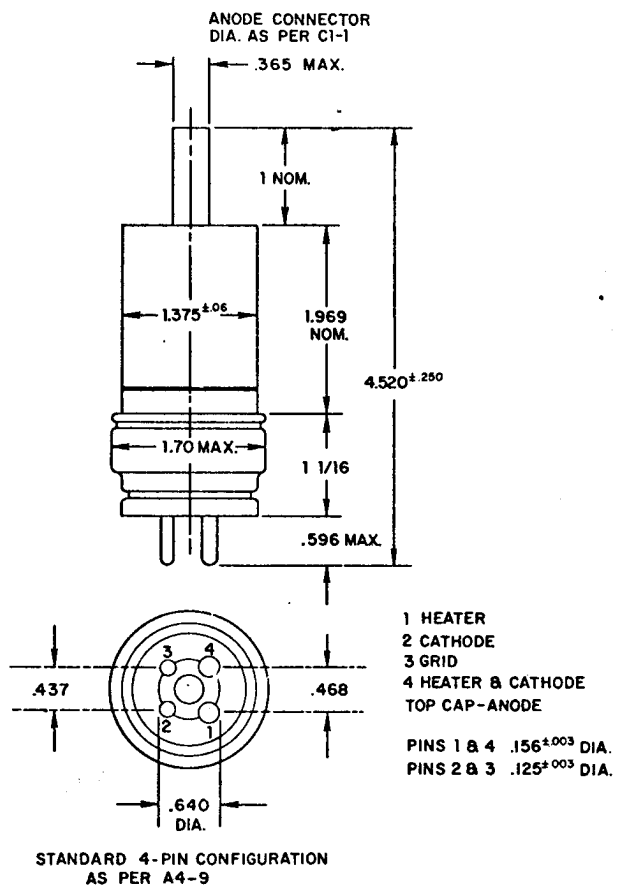
NOTE 4 The time of anode delay is measured between the 26 percent point on the rising portion of the unloaded grid voltage pulse and the point at which evidence of anode conduction first appears on the loaded grid pulse.

NOTE 5 Time jitter is measured at the 50 percent point on the anode current pulse.

NOTE 6 It may be desirable to employ forced air cooling under conditions of high Pb number operations. A cooling air stream of 5 cfm may be directed into the anode cup.

Additional information for specific applications can be obtained from the:

Electron Tube Applications Section, ITT Electron Tube Division, P. O. Box 100, Easton, Pennsylvania 18042



STANDARD 4-PIN CONFIGURATION
AS PER A4-9

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