



BOSTON, MASS.  
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DATA SHEET # 070

*New . . .*

## CERAMIC-METAL HYDROGEN THYRATRON

MODEL 7621/HY-2

The 7621/HY-2 is a small, ceramic-metal envelope hydrogen thyatron requiring only 30 seconds cathode and reservoir filament warm-up time. It is unique in that it can switch 350 kw peak power in spite of its small size.

The 7621/HY-2 can be used in applications where 1258, 3C45 and 4C35 glass envelope thytrons are presently being used or contemplated. Extended life is provided by a hydrogen reservoir which is connected internally across the cathode filament.

The rugged construction of the 7621/HY-2 makes it ideal for applications in which components will be subjected to extremes of shock and vibration. Under test the 7621/HY-2 has withstood shock of 200 g at 11 ms duration and vibration from 0-2000 cps at 20 g.



ACTUAL SIZE

Operation at +125°C ambient temperature is possible without forced cooling when the tube is operated at its maximum plate dissipation factor ( $P_b$ ) of  $2.7 \times 10^6$ .

The 7621/HY-2 comes equipped with a cathode flange for mounting, and through-hole tabs to which filament and grid connections are made. Special design of separate mounting sockets is no longer necessary. Flexible wire leads are also eliminated.

This small, lightweight ceramic-metal tube is ideally suited for compact modulator design for missile, airborne, shipboard, and ground-based applications where size and weight are of major consideration.

Besides the 7621/HY-2 described above, EG&G manufactures a variety of other ceramic-metal miniaturized hydrogen thytrons and hydrogen diodes.

For complete details, write to the Applications Engineering Group.

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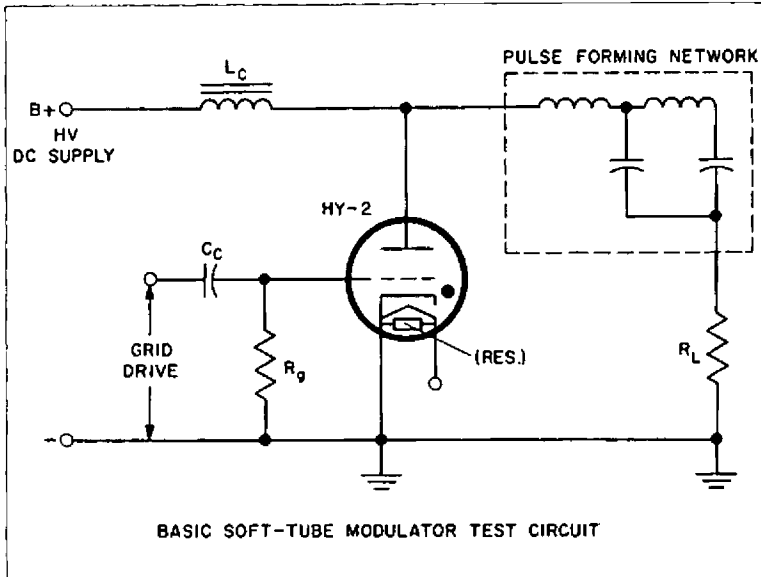
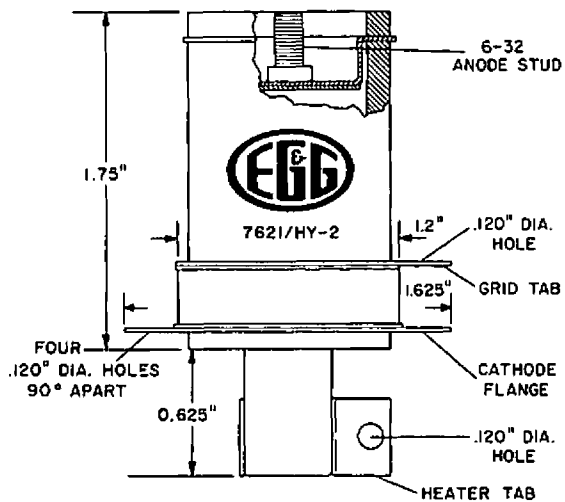


**EDGERTON, GERMESHAUSEN & GRIER, INC.**

160 BROOKLINE AVENUE, BOSTON 15, MASSACHUSETTS

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WESTERN OPERATIONS 300 Wall Street, Las Vegas, Nev. — Santa Barbara Airport, P.O. Box 98, Goleta, Calif.



## GENERAL SPECIFICATIONS

### ELECTRICAL (Absolute Maximum)

Peak Anode Voltage (epy) . . . . .	8 kv
Peak Anode Current (ib) . . . . .	100 amps
Average Anode Current (Ib) . . . . .	100 mAdc
Cathode RMS Current (I <sub>p</sub> ) . . . . .	2 Aac
Pulse Repetition Rate (prp) . . . . .	50,000 pps
Plate Dissipation Factor . . . . .	2.7 x 10 <sup>9</sup>
(P <sub>b</sub> = epy x prp x i <sub>b</sub> )	
Filament Warm-up Time (tk) . . . . .	30 sec. (@ 6.3v)
Peak Power Switching (p <sub>o</sub> ) . . . . .	350 kw

### GRID DRIVE

Peak Grid Trigger Voltage . . . . .	175 volts (Min.)
Grid Drive Impedance . . . . .	1200 ohms (Max.)
Grid Pulse Duration . . . . .	1.0 μsec (Min.)

### HEATER POWER

I <sub>f</sub> (@ E <sub>f</sub> = 6.3v) . . . . .	3.2 amps (Max.)
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### MECHANICAL

Length . . . . .	2-3/8" nominal
Diameter . . . . .	1-1/5" nominal
Weight . . . . .	0.13 lb.
Ambient Temperature . . . . .	-65°C to +125°C
Mounting . . . . .	Any position

DATA AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PRODUCTS — milli-mike® Oscilloscopes, Pulse Generators and Accessories • Hydrogen Thyratrons • Hydrogen Diodes • Triggered Spark Gaps • Xenon Flash Tubes • Laser Stimulators • Dosimeters • Flash Machines & Circuits • Oceanographic Equipment • Transformers • CAPABILITIES — Project Management • Systems Engineering • Research & Development



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