TUNG-SOL

PRODUCT BULLETIN

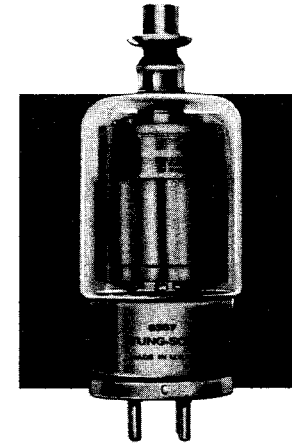
INDUSTRIAL ELECTRON TUBE TYPE 6587

MARCH 1964

HYDROGEN THYRATRON TYPE 6587

DESCRIPTION — The 6587 is a unipotential cathode three electrode glass envelope hydrogen thyratron designed for pulse modulator service.

This design may be put into operation in 3 minutes at −50° centigrade. Very careful attention has been exercised to place any serious resonances above 750 cycles. The reverse side of the anode is in direct contact with the atmosphere thereby greatly increasing its heat dissipation capability.



ELECTRICAL DATA

	Min	Bogey	Max	
Heater Voltage	5.7	6.3	6.8	Volts
Heater Current — Eh = 6.3 volts	9.6	—	11.6	Amperes
Cathode Heating Time	3	—	—	Minutes
Anode Delay Time		—	0.5	Microsecond
Anode Delay Time Drift		—	0.1	Microsecond
Time Jitter — Note 1		—	4	Nanoseconds
Anode Voltage Drop	75	—	250	Volts

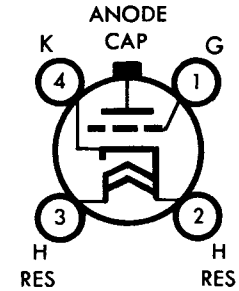
MECHANICAL DATA

Type of Cooling	Convection
Mounting Position	Any
Dimensions and Mounting	See page 2
Maximum Net Weight	11 Ounces
Base	JEDEC A4-18

See Page 2 for Outline Drawing

RATINGS — ABSOLUTE VALUES

	Min	Max	
Anode Voltage — Peak			
Forward	—	16,000	Volts
Inverse — Note 2	—	16,000	Volts
Cathode Current			
Peak	—	325	Amperes
Average	—	225	Milliamperes
RMS	—	6.3	Amperes
D-C Anode Voltage	3,500	—	Volts
Grid Voltage — Peak — Note 3	200	300	Volts
Heating Factor — epy x ib x prr	—	3.9×10^9	
Current Rate of Rise	—	1,500	Amperes per microsecond
Ambient Temperature	−50°	+90°	Centigrade
Shock (Navy Flyweight Machine)		24	Degrees (360 G's)



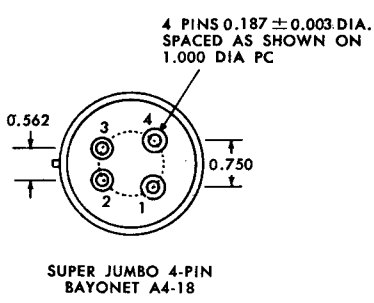
ENVIRONMENTAL TEST

Vibration:

0.1 inch double amplitude	5-20 cps
0.62 G	20-35 cps
0.01 inch double amplitude	35-100 cps
5.0 G	100-750 cps

NOTES:

1. The time jitter limit as stated is the maximum allowable variation in firing time measured at 50 percent of pulse amplitude after the tube has been operating for at least 60 seconds.
2. In pulse operation, the peak inverse voltage, exclusive of a 0.05 microsecond maximum duration, shall not exceed 5 kilovolts during the 25 microseconds after the pulse.
3. The driver pulse is measured at the tube socket with the thyratron grid disconnected. Time of rise equals 0.5 microsecond maximum, grid pulse duration equals 2 microsecond minimum, and impedance of driver circuit is between 50 ohms and 500 ohms.



SUPER JUMBO 4-PIN
BAYONET A4-18

NOTE: 1. CLAMPING PERMISSIBLE IN AREA OF BASE AND UP TO 2½" ABOVE TOP OF BASE
2. ALL DIMENSIONS IN INCHES