

TRIODE THYRATRON

Triode, hydrogen-filled thyatron primarily designed for pulse operation at high repetition frequencies, high peak currents and high voltages.

XH8-100

(4C35)

PRELIMINARY DATA

LIMITING VALUES (absolute ratings, not design centre)

It is important that these limits are never exceeded and such variations as mains fluctuations, component tolerances and switching surges must be taken into consideration in arriving at actual valve operating conditions.

Max. peak pulse anode voltage (pulse modulator service)		←
*Inverse	8.0	kV
†Forward	8.0	kV
Min. anode supply voltage	2.5	kV
Min. peak inverse anode voltage	5.0	%
		of forward voltage.
Max. cathode current		
Peak	90	A
Average	100	mA
Max. negative control grid voltage	200	V
Control grid drive limits (measured with grid disconnected).		
Min. peak grid voltage	175	V
Max. time of rise	0.5	μs
Min. grid pulse duration	2.0	μs
Max. impedance of drive circuit	1.5	kΩ
Max. pulse repetition frequency.	See Note ‡	
Heater voltage limits	5.7 to 6.6	V
Min. valve heating time	180	s
Ambient temperature limits	-50 to +90	°C

*In pulsed operation, the peak inverse anode voltage should not exceed 2.5kV during the first 25 μs after the pulse.

†For instantaneous starting applications where the anode voltage is applied instantaneously the maximum initial permissible forward voltage is 7kV and shall not be obtained in less than 0.04 seconds.

‡The product of pulse repetition frequency, peak forward anode voltage and peak cathode current must be not greater than 2.0×10^9 .



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CHARACTERISTICS

Electrical

Heater voltage	6.3	V
Heater current at 6.3V		
Minimum	5.5	A
Maximum	6.7	A

Mechanical

Type of cooling	Convection
	Cooling of the anode lead is permissible but no air blast should be directly applied to the valve envelope.
Mounting position	Any
	Clamping at base and/or bulb only in the region up to 2.5 inches above the top of the base.

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