

March 15, 1961

THYRATRON TYPE 8043

The 8043 is a three-electrode mercury-vapor thyatron with negative control characteristics. The tube is designed for rectifier and industrial control service, especially in induction heating power supplies.

ELECTRICAL:

	Min.	Bogey	Max.	
Filament Voltage	4.75	5.00	5.25	Volts
Filament Current at Bogey Voltage	5.7	-	6.2	Amp.
Cathode Heating Time*	300	-	-	Sec.
Interelectrode Capacitance:				
Anode to Grid	-	10	-	puf
Deionization Time, approx.	-	1000	-	usec
Ionization Time, approx.	-	10	-	usec
Anode Voltage Drop	-	15	-	Volts

MECHANICAL:

Type of Cooling.▲	Air Convection
Mounting Position	Vertical, Base Down
Net Weight, approx.	11 Ounces
Shipping Weight, approx.	2 Pounds

MAXIMUM RATINGS:

Absolute Values

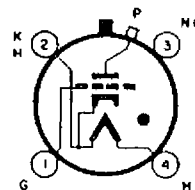
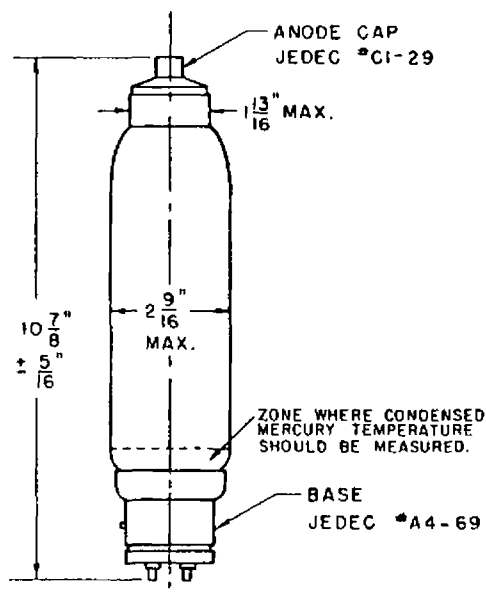
Maximum Peak Anode Voltage:			
Forward (see temperature range)	15000	21000	Volts
Inverse (see temperature range)	15000	21000	Volts
Maximum Cathode Current:			
Peak	7.5	7.5	Amp.
Average	2.0	2.0	Amp.
Surge (max. duration 0.1 second)	50	50	Amp.
Max. Average Time §	1.0	1.0	Cycle
Maximum Negative Control Grid Voltage:			
Before Conduction	-500	-500	Volts
During Conduction	-10	-10	Volts
Maximum Positive Control Grid Voltage:			
Anode Negative	10	10	Volts
Maximum Positive Control Grid Current:			
Peak	1.0	1.0	Amp.
Average	0.1	0.1	Amp.
Maximum Average Time §	1.0	1.0	Cycle
Condensed-Mercury Temperature Limits ■	25-55	25-50	°C
Frequency Range	25-150	25-150	cps
Equilibrium Condensed-Mercury Temperature Rise Above Ambient:			
No Load, approx.	9		°C

* The minimum heating time refers only to the cathode. Sufficient additional time must be allowed, during cold-weather periods, to permit the condensed-mercury temperature to rise to the minimum condensed-mercury temperature limit.

▲ Forced-air cooling will be required in many applications to maintain the condensed-mercury temperature within the specified condensed-mercury temperature limits.

■ The optimum condensed-mercury temperature limits for 21000-volt operation are 35-45°C. For 15000-volt operation the optimum limits are 35-50°C.

§ One period of the supply frequency.



BASE CONNECTIONS

H - Heater
K - Cathode
G - Grid
NC - No Connection
P - Anode

CE-81403

Thyatron Section

CONTROL CHARACTERISTICS

