MERCURY VAPOR AND INERT GAS THYRATRONS - TRIODES AND TETRODES

TYPE NO.	Heater or Filament		Filament Heating Time (sec.)	Tube Drop (Volts)	Peak Voltage		Anode Current		Max. Grid Volts	Ionization Time	Deionizatio Time
	Volts	Amps			Forward Volts	Inverse Volts	Peak Amps	Average Amps		μ sec.	μ sec.
2D21	6.3	0.6	10	8	650	1300	0.5	0.1	-100	0.5	-
AX-105	5.0	10.0	300	16	10000	10000	8.0	4.0	-500	10	1000
AX-255	5.0	16.0	300	12	1500	2500	80.0	12.5	-300	10	1000
AX-260	5.0	25.0	600	10	1500	2500	160.0	25.0	-300	10	1000
678	5.0	7.5	60	15	15000	15000	6.0	1.6	-500	-	-
1701	2.5	5.0	5	16	2500	5000	1.0	0.5	-500	10	1000
5544	2.5	12.0	60	16	1500	1500	40.0	3.2	-250	-	400
5545	2.5	21.0	60	16	1500	1500	80.0	6.4	-250	-	500
5559	5.0	4.5	300	16	1000	1500	15.0	2.5	-500	10	1000
5560/FG95	5.0	4.5	300	16	1000	1000	15.0	2.5	-1000	10	1000
5685/C6J	2.5	21.0	60	9	750	1250	12.8	6.4	-100	-	1000
5727	6.3	0.6	10	8	650	1300	0.5	0.1	-100	0.5	35 min.
5869/AGR-9950	5.0	6.5	120	15	13000	13000	4.0	1.0	-100	10	250
5870/AGR-9951	5.0	14.0	120	12	27000	27000	10.0	2.5	-100	10	250
6786	5.0	15-20	600	12	15000	15000	45.0	10-15		-	-

MAGNETRONS - Typical operating conditions

TYPE NO.	Frequency mc/sec.		Power Output Pulsed KW	Power Output Av. Watts	Plate Voltage Pulsed (KV)	Plate Current Pulsed (Amperes)	Plate Current Average (mA)	Magnetic Field (Gauss)	Duty Factor
	Min.	Max.	Min.	Approx.					
JP9-15	9345	9405	18	3.6	7.5	6.5	1.3	Packaged	.0002
				18			6.5		.001
2J42	9345	9405	7.0	7.0	5.5	4.5	4.5	Packaged	.001
2J48[1]	9310	9320	38	38	10.5	10.0	10	4850	.001
2J55	9345	9405	40	40	12.0	12.0	12	Packaged	.001
2J56	9215	9275	40	40	12.0	12.0	12	Packaged	.001
4J47	2785	2820	700	350	25.0	60.0	30	2700	.0005
4J57	6475	6575	180	180	17.5	30.0	30	Packaged	.001
4J58	6375	6475	180	180	17.5	30.0	30	Packaged	.001
4J59	6275	6375	180	180	17.5	30.0	30	Packaged	.001
5586[2]	2700	2900	800	400	30.0	70.0	35	2700	.0005
5657[2]	2900	3100	800	400	30.0	70.0	35	2700	.0005
6507[3]	9345	9405	65	65	15.0	15.0	15.0	Packaged	.001
6589[2]	3350	3500	500	250	28.0	50.0	25	2700	.0005
6972	9345	9405	75	75	15.0	15.0	15.0	Packaged	.001

NOTES:

[1]Tube can be operated with external stabilizing cavity, in which case frequency is 9310 ± 1 mc/sec.

[2]Tunable type, mechanical tuning.

Condensed Mercury Temp. Range - °C	DESCRIPTION	TYPE NO.
-	High control ratio, temperature independent Thyratron with high circuit sensitivity. Inert gas filled. Negative control characteristics.	2D21
+40° to +80°	Radiation-cooled mercury-vapor thyratron-tetrode.	AX-105
+35° to +75°	Heavy-duty, mercury vapor thyratron for motor control and A.C. welder control.	AX-255
+35° to +75°	Heavy-duty, mercury vapor thyratron for motor control and A.C. welder control.	AX-260
+25° to +50°	Negative-control, H.V. mercury vapor tube. Especially suitable for relay uses where current flow is desired in absence of grid excitation.	678
+30° to +80°	Radiation-cooled mercury-vapor low voltage thyratron. Similar in structure to 866-A.	1701
-	Xenon filled thyratron with reliable operation over wide temperature range. For electronic control of D.C. motor speed, regulation of current and voltage, counting and sorting devices and electronic switching machines.	5544
-	Same as for type 5544 above.	5545
+40° to +75°	Indirectly heated, mercury-vapor triode with negative control characteristics.	5559
+40° to +80°	Four electrode, mercury vapor thyratron with negative control characteristics. Designed for applications where the available grid power is very small and where it is desired to actuate the grid from a high impedance source.	5560/FG95
-	Grid-control, Xenon thyratron. Tantalum anode provides good heat dissipation and gettering properties.	5685/C6J
-	Ruggedized version of 2D21. Particularly suitable for mobile and aircraft operation where mechanical strength and reliability are important. Designed for relay, servo control applications, etc.	5727
+25° to +55°	Radiation-cooled mercury-vapor thyratron. Oxide coated filament. Used for stepless control of voltage output and D-C motor control.	5869/AGR-9950
+30° to +45°	Same as above for type 5869/AGR-9950.	5870/AGR-9951
+25° to +55°	High voltage, grid controlled mercury vapor thyratron. For industrial RF generators and transmitting equipment.	6786

Starting Filament (Volts)	Starting Filament (Amps)	DESCRIPTION
6.3	0.6	The Amperex family of magnetrons operate in the VUHF frequency bands ranging from 2700 to 9405 mc/sec. at peak power levels ranging from 0.5 kw to 800 kw. Designed for radar application but also suitable in applications requiring short pulses of R.F. power of high intensity. Detailed data sheets for each of the magnetrons shown are available on request.
6.3	0.6	
6.3	1.0	
6.3	1.0	
6.3	1.0	
12.6	1.45	
12.6	3.62	
12.6	3.62	
12.6	3.62	
16.0	3.1	
16.0	3.1	
12.6	2.1	
16.0	3.1	
10.0	2.85	

[3]This tube also operates at pulse width = 14 μsec., duty factor .001. Also pulse width = 5 μsec., duty factor .0025. For more detailed information, write to Magnetron Engineering Section.