



Characteristics of

**sylvania
transmitting
tubes**

SYLVANIA

SYLVANIA ELECTRIC PRODUCTS INC.
1740 BROADWAY, NEW YORK 19, N. Y.



SYLVANIA TRANSMITTING TUBE CHARACTERISTICS CHART

NOTICE:

The data published here have been compiled from various sources and while believed to be accurate, no responsibility can be assumed in case of error.

The types listed here are generally available through Sylvania distributors who should be consulted for the latest information on availability and prices.

HOW TO USE THIS CHART

The types included here comprise those most commonly used in amateur and small commercial transmitters. Since these types are usually rated for more than one type of service they have been arranged first by type of service and then numerically. This will assist anyone seeking the ratings or the best tube for a given service.

The information is given in the same form as in our well-known Receiving Tube Chart with the necessary modifications of column heads to give the characteristics required for the type and service. Capacitance values given are unshielded unless otherwise specified.

LICENSE NOTICE

Mention or reference to patented circuits does not constitute permission for their use. The license agreement under which Sylvania tubes are sold is enclosed in the tube carton.

A TECHNICAL PUBLICATION OF

SYLVANIA

SYLVANIA ELECTRIC PRODUCTS INC.

1740 BROADWAY, NEW YORK 19, N. Y.

A-F POWER AMPLIFIER AND MODULATOR — CLASS B

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE				
	Style	Class	Base	Type	Volts	Amps	C _{gp}	C _{in}	C _{out}		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	P. to P. Load in Ohms	Watts Driving Power		Watts Power Output			
801-A/801*	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	6.0	4.5	1.5	CCS	20	70	400	.....	50	.....	130	.....	6000	3	27	801-A/801*
													500	.....	60	.....	130	.....	8000	3	36	
													600	.....	75	.....	130	.....	10,000	3	45	
805*	T-18	Triode	3-N	Thor. Fil.	10.0	3.25	6.5	8.5	10.5	CCS	125	210	1250	.....	0	.....	400	.....	6700	6	300	805*
													1500	.....	16	.....	400	.....	8200	7	370	
808*	G-22	Triode	2-D	Thor. Fil.	7.5	4.0	2.8	5.3	0.25	CCS	50	150	1250	.....	16.5	.....	230	.....	12,700	7.8	190	808*
													1500	.....	22.5	.....	190	.....	18,300	4.8	185	
													ICAS	75	150	2000	36.0	220		21,400	8.8	300
809*	ST-19	Triode	3-G	Thor. Fil.	6.3	2.5	6.7	5.7	0.9	CCS	25	125	750	.....	4.5	.....	200	.....	8400	2.5	105	809*
													700	.....	0	.....	250	.....	6200	3.4	120	
													ICAS	30	125	1000	9	200		11,600	2.7	145
810*	T-20	Triode	2-N	Thor. Fil.	10.0	4.5	4.8	8.7	12.0	CCS	125	250	2000	.....	50	.....	420	.....	11,000	10	590	810*
													ICAS	175	250	2250	60	450		11,600	13	725
811*	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.5	0.6	CCS	40	150	1250	.....	0	.....	200	.....	14,400	2.6	175	811*
													ICAS	50	150	1250	0	240		12,000	3.4	210
													ICAS	50	150	1500	9	200		17,600	3.0	220
811A*	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.6	5.9	0.7	CCS	45	175	750	.....	0	.....	350	.....	5100	9.7	178	811-A*
													1250	.....	0	.....	260	.....	12,400	3.8	235	
													ICAS	65	175	1000	0	350		7400	7.5	248
													1250	.....	0	.....	350	.....	9200	6.0	310	
													1500	.....	4.5	.....	313	.....	12,400	4.4	340	
812*	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.3	5.3	0.8	CCS	40	150	1250	.....	36	.....	200	.....	15,000	4.3	175	812*
													ICAS	50	150	1500	45	200		18,000	4.7	225
812A*	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.4	0.77	CCS	45	175	1250	.....	40	.....	260	.....	12,200	3.5	235	812-A*
													ICAS	65	175	1500	48	310		13,200	5.0	340
841*	S-17	Triode	4-D	Thor. Fil.	7.5	1.25	7.	4.	3.	CCS	15	60	350	.....	5.	.....	7.	.....	5200	3.2	21	841*
													425	.....	5.	.....	13.	.....	7000	3.6	28	
8005*	ST-19	Triode	3-G	Thor. Fil.	10.0	3.25	5.0	6.4	1.0	CCS	75	200	1250	.....	55.	.....	320	.....	8000	4.0	250	8005*
													ICAS	85	200	1500	67.5	330		9800	5.5	330

*Typical operation values are for 2 tubes.

A-F POWER AMPLIFIER AND MODULATOR — CLASS AB₂

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE		
	Style	Class	Base	Type	Volts	Amps	C _{gp}	C _{in}	C _{out}		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current ^o	Ma. Screen Current ^o	P-P Load in Ohms	Watts Driving Power		Watts Power Output	
807*	ST-16	Beam Amp.	5-AW	Cathode	6.3	0.9	0.2m	12.0	7.0	CCS	25	120	400	300	25	.....	240	10	3200	0.2	55	807*
5933/807W	T-12												500	300	29	.....	240	10	4240	0.2	75	
													600	300	30	.....	200	10	6400	0.1	80	
813*	T-20	Beam Amp.	5-BA	Thor. Fil.	10.0	5.0	0.25m	16.3	14.0					750	300	32	240	10	6950	0.2	120	813*
														2000	750	90	0	315	58	16,000	0.10	455	
815	T-16	Duo Beam Amplifier	8-BY	Cathode	12.6	0.8	0.2m	14	8.5	CCS	20	150	400	125	15	.....	150	32	6200	0.36	42	815
					6.3	1.6	.....	.....	.....	ICAS	25	150	500	125	15	.....	150	32	8000	0.36	54	
1625*	ST-16	Beam Amp.	5-AZ	Cathode	12.6	0.45	0.2m	11	7													1625*	
																							Same as Type 807.
2E24*	T-9	Beam Amp.	7-CL	Coated Fil.	6.3	0.65	0.11m	8.5	6.5														
																							Same as Type 807.
2E24*													10	75	.....	150	26	7000	0.43	42	2E24*	
													13.5	75	.....	150	28	9000	0.46	54		
2E26□	T-9	Beam Amp.	7-CK	Cathode	6.3	0.8	0.20m	13	7														
																							Same as Type 807.
2E26□													20	150	.....	150	32	6200	0.36	42	2E26□	
													25	150	.....	150	32	8000	0.36	54		
2E30*	T-5½	Beam Amp.	7-CQ	Filament	6.0	0.65	0.2	9.5	6.6														
																							Same as Type 807.
2E30*													10	60	.....	100	16	2500	0.23	7.4	2E30*	
													180	180	22.5	.....	120	20	3800	0.2		17.0

A-F POWER AMPLIFIER AND MODULATOR — CLASS AB₁

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	C _{gp}	C _{in}	C _{out}		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	Ma. Grid Current	Watts Driving Power		Watts Power Output
807*	ST-16	Beam Amp.	5-AW	Cathode	6.3	0.9	0.2m	12.0	7.0	CCS	25	125	400	tie to P	45	.....	140	.....	3000	.....	15	807*
5933/807W*	T-12									ICAS	30	125	400	tie to P	45	.....	140	.....	3000	.....	15	5933/807W*

*Typical operation values are for 2 tubes. □ Maximum ratings and typical operation values are for 2 tubes. m Maximum ° At Maximum Signal

R-F POWER AMPLIFIER — CLASS B TELEPHONY

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	Cgp	Cin	Cout		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current ^o	Ma. Screen Current ^o	P-P Load in Ohms	Watts Driving Power		Watts Power Output
801-A/801	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	6.0	4.5	1.5	CCS	20	50	500	.....	60	.....	45	.....	0.2	2.2	6	801-A/801
											20	50	600	.....	75	.....	45	.....	0.2	2.3	7.5	
804 †	T-16	Pentode	5-J	Thor. Fil.	7.5	3.0	.01 ^m	16.	14.5	CCS	40	50	1000	300	20	0	45	12.	1	.35	11	804 †
													1000	300	20	45	11.5	1	.3	12		
													1250	300	20	45	11.	1	.25	16		
										ICAS	50	50	1500	300	26	45	50	12.	1.5	.5	28	
805	T-18	Triode	3-N	Thor. Fil.	10.0	3.25	6.5	8.5	10.5	CCS	125	150	1250	.....	0	.....	135	.....	15	11.0	55	805
											125	150	1500	.....	10	.....	115	.....	15	7.5	57.5	
807	ST-16	Beam Amp.	5-AW	Cathode	6.3	0.9	0.2 ^m	12.0	7.0	CCS	25	80	400	250	25	.....	75	4	0	0.25	9	807
													500	250	25	.....	75	4	0	0.25	12.5	
5933/807W	T-12									CCS	.....	.....	600	250	25	.....	62.5	3	0	0.2	12.5	5933/807W
										ICAS	30	90	750	300	35	.....	60	3	0	0.12	15	
809	ST-19	Triode	3-G	Thor. Fil.	6.3	2.5	6.7	5.7	0.9	CCS	25	50	500	.....	5	.....	50	.....	6	1.4	7.5	809
											25	50	750	.....	10	.....	50	.....	5	1.4	12.5	
										ICAS	30	60	1000	.....	30	.....	45	.....	4	1.5	15	
810	T-20	Triode	2-N	Thor. Fil.	10.0	4.5	4.8	8.7	12.0	CCS	125	185	1500	.....	50	.....	115	.....	2	6	60	810
											125	185	2000	.....	65	.....	93	.....	2	4	60	
										ICAS	175	185	2250	.....	70	.....	100	.....	2	4	75	
811	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.5	0.6	CCS	40	60	1250	.....	0	.....	48	.....	6	1	20	811
										ICAS	50	60	1500	.....	6	.....	50	.....	6	1.5	25	
812	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.3	5.3	0.8	CCS	40	60	1250	.....	35	.....	48	.....	1	1.2	20	812
										ICAS	50	60	1500	.....	45	.....	50	.....	1.1	1.5	25	
813	T-20	Beam Amp.	5-BA	Thor. Fil.	10.0	5.0	0.25 ^m	16.3	14.0	CCS	100	100	1500	400	60	0	100	4	.....	<2.0	50	813
											100	100	2000	400	75	0	75	3	.....	<2.0	50	
										ICAS	125	125	2250	400	60	0	85	3	.....	<2.0	70	
815 PUSH-PULL	T-16	Duo Beam Amplifier	8-BY	Cathode	12.6	0.8	0.2 ^m	14	8.5	CCS	20	75	400	125	25	.....	75	4	.....	0.8	10.5	815
					6.3	1.6	.....	.....	.....	ICAS	25	75	500	125	25	.....	75	3	.....	0.7	13	
837	ST-16	Pentode	6-BM	Cathode	12.6	0.7	0.20 ^m	16	10	CCS	12	40	400	200	25	0	35	10	1	0.4	4	837
											12	40	500	200	25	0	30	15	0	0.2	5	
											12	40	500	200	25	40	30	12	0	0.1	5.5	
1625	ST-16	Beam Amp.	5-AZ	Cathode	12.6	0.45	0.2 ^m	11	7	CCS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1625
										ICAS	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
											
8005	ST-19	Triode	3-G	Thor. Fil.	10.0	3.25	5.0	6.4	1.0	CCS	75	100	1250	.....	65	.....	85	.....	2	5.5	40	8005
										ICAS	85	100	1500	.....	80	.....	83	.....	1	5.0	45	

† Pentode Connection. m Maximum. ° At Maximum Signal.

R-F POWER AMPLIFIER AND OSCILLATOR — CLASS C TELEGRAPHY

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	Cgp	Cin	Cout		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	Ma. Grid Current	Watts Driving Power		Watts Power Output
															Self Bias							
2E22	ST-16	Pentode	5-J	Coated Fil.	6.3	1.5	0.2 ⁵ m	13	8.0	CCS	30	110	500	250†	Self Bias	0	100	16	6.0	0.55	30	2E22
													500	250†	□	22.5	100	16	6.0	0.55	34	
													750	250†	10,000	0	100	16	6.0	0.55	48	
													750	250†	.....	22.5	100	16	6.0	0.55	53
2E24	T-9	Beam Amp.	7-CL	Coated Fil.	6.3	0.65	0.11m	8.5	6.5	ICAS	13.5	85	600	195	50	0	66	10	3.0	0.21	27	2E24
													350*	170*	50	0	85	10	3.0	2.0	16.5	
2E26	T-9	Beam Amp.	7-CK	Cathode	6.3	0.8	0.20m	13	7	CCS	10	75	400	190	30	75	11	3	0.12	20	2E26
													500	185	40	.....	60	11	3	0.15	20
													600	185	45	.....	66	10	3	0.17	27
2E30	T-5½	Beam Amp.	7-CQ	Coated Fil.	6.0	0.65	0.2	9.5	6.6	CCS	10	60	200	200	46	0	45	10	2.3	0.15	5.0	2E30
													250	200	50	0	50	10	2.5	0.2	7.5	
3D24	Lock-In	Tetrode	7-CW	Thor. Fil.	6.3	3.0	0.2m	6.3	2.4	CCS	45	100	1500	375	300	90	22	10	4.0	105	3D24
													2000	375	300	.....	90	20	10	4.0	140
801-A/801	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	6.0	4.5	1.5	CCS	20	70	500	125*	65	15	3.5	20	801-A/801
													600	.....	150	.....	65	.....	15	4	25
804 †	T-16	Pentode	5-J	Thor. Fil.	7.5	3.0	.01m	16.	14.5	CCS	40	95	1000	300	100	45	92	29	7	.95	60	804 †
													1250	300	100	0	80	33	7	.9	64	
													1250	300	100	45	92	27	7	.95	80	
													1500	300	100	45	100	35	7	1.95	110	
804A										ICAS	50	100	1500	300	100	45	100	35	7	1.95	110	804A
													1250	180	100	tie to G2	92	23	8	1.2	80	
805	T-18	Triode	3-N	Thor. Fil.	10.0	3.25	6.5	8.5	10.5	CCS	125	210	1000	95	200	40	8.5	130	805
													1250	.....	100	.....	200	.....	40	8.5	170
807	ST-16	Beam Amp.	5-AW	Cathode	6.3	0.9	0.2m	12.0	7.0	CCS	25	100	400	250	45	100	7.5	3.5	0.2	25	807
													500	250	45	.....	100	6	3.5	0.2	30
													600	250	45	.....	100	7	3.5	0.2	40
													750	250	45	.....	100	6	3.5	0.2	50
5933/807W	T-12									ICAS	30	100	750	250	45	100	6	3.5	0.2	50	5933/807W
													1000	.....	75	.....	100	.....	25	3.8	75
													1500	.....	105	.....	200	.....	40	8.5	215
809	ST-19	Triode	3-G	Thor. Fil.	6.3	2.5	6.7	5.7	0.9	CCS	25	100	500	50	100	20	2.5	35	809
													750	.....	60	.....	100	.....	20	2.5	55
													1000	.....	75	.....	100	.....	25	3.8	75
810	T-20	Triode	2-N	Thor. Fil.	10.0	4.5	4.8	8.7	12.0	CCS	125	250	1500	120	250	40	10	275	810
													2000	.....	160	.....	250	.....	40	12	375
													2500	.....	180	.....	300	.....	60	19	575
811	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.5	0.6	CCS	40	125	1250	87.5	125	35	7	115	811
													1500	.....	113	.....	150	.....	35	8	170

811-A	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.6	5.9	0.7	CCS	45	175	1250	.....	50	.....	140	.....	45	5.7	135	811-A					
										ICAS	65	175	1500	.....	70	.....	173	.....	40	7.1	200						
										CCS	45	65	1750	RMS AC	70	.....	130	.....	46	12	175							
										CCS	45	160	1125	Rect. AC	35	.....	125	.....	25	3.	135							
812	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.3	5.3	0.8	CCS	40	125	1250	.....	125	.....	125	.....	25	5	116	812					
										CCS	40	75	1500 rms	.....	Self Bias 5000	.....	150	.....	25	.....	170					
812-A										ICAS	55	150	1500	.....	175	.....	150	.....	25	6.5	170						
										CCS	45	175	1250	.....	90	.....	140	.....	30	5.4	130						
										ICAS	65	175	1500	.....	120	.....	173	.....	30	6.5	190						
813	T-20	Beam Amp.	5-BA	Thor. Fil.	10.0	5.0	0.25m	16.3	14.0	CCS	100	180	1250	300	75	0	180	35	12	1.7	170	813								
													1500	300	90	0	180	30	12	1.9	210									
													2000	400	120	0	180	45	10	1.9	275									
815 Push-Pull	T-16	Duo Beam Amplifier	8-BY	Cathode	12.6 6.3	0.8 1.6	0.2m	14	8.5	CCS	20	150	400	145	45	.....	150	17	4.5	0.23	44	815							
										ICAS	25	150	500	200	45	.....	150	17	3.5	0.18	56								
829-B Push-Pull	T-16	Duo Beam Amplifier	7-BP	Cathode	6.3	2.25	.125m	14.5	7.0	CCS	30	212	750	200	50	.....	120	34	8	.45	65	829B							
										ICAS	40	212	500	200	45	.....	240	32	12	0.7	83								
832A Push Pull	T-16	Duo Beam Amplifier	7-BP	Cathode	12.6 6.3	0.8 1.6	0.05s m	7.5	3.8	CCS	15	90	500	200	65	.....	72	14	2.6	0.18	26	832A Push Pull							
										CCS			750	200	65	.....	48	15	2.8	0.19	26								
837†	ST-16	Pentode	6-BM	Cathode	12.6	0.7	0.20s m	16	10	CCS	12	80	400	200	40	0	70	32	8	0.5	16	837								
837▲										CCS	12	80	400	110	70	.....	70	25	8	0.75	18	▲							
841	S-17	Triode	4-D	Thor. Fil.	7.5	1.25	7	4	3	CCS	15	60	350	.....	30	.....	50	.....	15	1.8	11	841					
										CCS			450	.....	34	.....	50	.....	15	1.8	15						
1625	ST-16	Beam Amp.	5-AZ	Cathode	12.6	0.45	0.2m	11	7	CCS	Same as Type 807.										1625									
										ICAS	Same as Type 807.																			
1626	ST-12	Triode	6-Q	Cathode	12.6	0.25	4.4	3.2	3.4	CCS	5	25	250	.....	70	.....	105	.....	25	0.5	4	1626					
10-Y	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	7	4	3	.....	15	60	350	.....	90	.....	55	.....	15	3	9	10-Y				
VT25	ST-16	Triode	4-D		Same as Type 10-Y																	VT25								
8005	ST-19	Triode	3-G	Thor. Fil.	10.0	3.25	5.0	6.4	1.0	CCS	75	200	1250	.....	115	.....	190	.....	30.	6.5	170	8005					
										ICAS	85	200	1500	.....	130	.....	200	.....	32.	7.5	220						

■ Self-rectifying Oscillator Typical operation in push-pull circuit at 50 mc.
† Series Screen Resistor = 15,000 ohms. † Series Screen Resistor = 30,000 ohms.

□ Ohm Grid Resistor. ▲ Tetrode connection. † Pentode connection. :Shielded m Maximum.
*Reduced ratings for 160 mc.

PLATE-MODULATED R-F POWER AMPLIFIER — CLASS C TELEPHONY

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	C _{gp}	C _{ln}	C _{out}		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	Ma. Grid Current	Watts Driving Power		Watts Power Output
2E24	T-9	Beam Amp.	7-CL	Coated Fil.	6.3	0.65	0.11m	8.5	6.5	CCS	6.7	60	400	180	45	.....	50	8.	2.5	0.15	13.5	2E24
										ICAS	9.	70	500	180	45	.....	54	8.	2.5	0.16	18	2E24
2E26	T-9	Beam Amp.	7-CK	Cathode	6.3	0.8	0.20m	13	7	CCS	6.7	60	400	160	50	.....	50	7.5	2.5	0.15	13.5	2E26
										ICAS	9.0	60	500	180	50	.....	54	9.0	2.5	0.15	18	
2E30	T-5½	Beam Amp.	7-CQ	Filament	6.0	0.65	0.2	9.5	6.6	CCS	6.6	60	200	200	46	.....	45	10	2.3	0.15	5.0	2E30
3D24	Lock-In	Tetrode	7-CW	Thor. Fil.	6.3	3.0	0.2m	6.5	2.4	CCS	45	80	1250	300	200	.....	70	15	10	3.25	65	3D24
										CCS	.....	...	1250	300	200	.....	80	16	12	3.50	74	
801-A/801	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	6.0	4.5	1.5	CCS	13.5	60	400	.....	150	.....	55	.....	15	4.0	14	801-A/801
													500	.....	190	.....	55	.....	15	4.5	18	
804 †	T-16	Pentode	5-J	Thor. Fil.	7.5	3.0	.015 m	16	14.5	CCS	27	80	1000	220	90	50	75	21	6	0.65	50.	804 †
										ICAS	35	80	1250	250	90	50	75	20	6	0.75	65	
804A										CCS	27	80	1000	155	80	tie to G2	75	28	8	1.1	50	804A
										ICAS	35	80	1250	170	80	tie to G2	75	24	8	1.1	65	
805	T-18	Triode	3-N	Thor. Fil.	10.0	3.25	6.5	8.5	10.5	CCS	85	175	1000	.....	155	.....	160	.....	60	16	110	805
													1250	.....	160	.....	160	.....	60	16	140	
807	ST-16	Beam Amp.	5-AW	Cathode	6.3	0.9	0.2m	12.0	7.0	CCS	16.5	40	325	225	75	.....	80	5.0	3.0	0.25	17.5	807
													400	225	80	.....	80	5.75	3.5	0.30	22.5	5933/807W
5933/807W	T-12												475	225	85	.....	83	5.0	4.0	0.40	27.5	
										ICAS	25	60	600	275	90	.....	100	6.5	4.0	0.40	42.5	
808	G-22	Triode	2-D	Thor. Fil.	7.5	4.0	2.8	5.3	0.25	CCS	35	125	1000	.....	135	.....	120	.....	35	9.0	90	808
										CCS			1250	.....	150	.....	100	.....	30	7.5	95	
										ICAS	50	125	1600	.....	170	.....	125	.....	37	10.0	150	
809	ST-19	Triode	3-G	Thor. Fil.	6.3	2.5	6.7	5.7	0.9	CCS	17.5	83	500	.....	60	.....	83	.....	32	3.2	30	809
													600	.....	60	.....	83	.....	32	3.2	38	
										ICAS	25	100	750	.....	60	.....	100	.....	32	4.3	55	
810	T-20	Triode	2-N	Thor. Fil.	10.0	4.5	4.8	8.7	12.0	CCS	85	210	1250	.....	200	.....	210	.....	50	17	180	810
													1600	.....	200	.....	210	.....	50	17	250	
										ICAS	125	250	2000	.....	350	.....	250	.....	70	35	380	
811	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.5	0.6	CCS	27	105	1000	.....	100	.....	105	.....	50	9	82	811
										ICAS	40	125	1250	.....	125	.....	125	.....	50	11	120	
811-A	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.6	5.9	0.7	CCS	30	125	1000	.....	55	.....	115	.....	45	6.1	88	811-A
										ICAS	45	150	1250	.....	120	.....	140	.....	45	10.0	135	
812	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.3	5.3	0.8	CCS	27	105	1000	.....	100	.....	105	.....	25	4.5	82	812
										ICAS	40	125	1250	.....	125	.....	125	.....	25	6.0	120	
812-A	ST-19	Triode	3-G	Thor. Fil.	6.3	4.0	5.5	5.4	0.77	CCS	30	125	1000	.....	110	.....	115	.....	33	6.6	85	812-A
										ICAS	45	150	1250	.....	115	.....	140	.....	35	7.6	130	

813	T-20	Beam Amp.	5-BA	Thor. Fil.	10.0	5.0	0.25m	16.3	14.0	CCS	67	150	1250	300	160	0	150	35	13	2.9	140	813	
																1600	300	160	0	150	30		12	2.7	180
815 Push-Pull	T-16	Duo Beam Amp.	8-BY	Cathode	12.6	0.8	0.2m	14	8.5	CCS	13.5	125	325	165	45	.....	123	16	4	.20	30	815
					6.3	1.6	.....	.....	.....	ICAS	20.0	150	400	175	45	.....	150	15	3	.16	45	
829-B Push-Pull	T-16	Duo Beam Amp.	7-BP	Cathode	6.3	2.25	.125m	14.5	7.0	CCS	21	212	600	200	70	.....	112	26	8	0.6	50	829-B
					12.6	1.125	Natural Cooling		ICAS	28	212	425	200	60	.....	212	35	11	0.8	63		
							Forced Air		ICAS			600	200	70	.....	150	30	12	0.9	70		
									CCS	28	212	425	200	60	.....	212	35	11	0.8	63		
									CCS			600	200	70	.....	150	30	12	0.9	70		
									ICAS	40	240	600	200	80	.....	200	30	15	1.4	85		
832-A Push Pull	T-16	Duo Beam Amp.	7-BP	Cathode	12.6	0.8	0.05m	7.5	3.8	CCS	10	68	425	200	60	.....	52	16	2.4	0.15	16	832-A
					6.3	1.6				CCS			600	200	65	36	16	2.6	0.16	17		Push Pull
837 †	ST-16	Pentode	6-BM	Cathode	12.6	0.7	0.20m	16	10	CCS	8	50	400	140	40	40	45	20	5	0.3	11	837 †	
837 ▲											8	50	400	100	70	tie to G2	45	30	7	0.7	11	837 ▲	
841	S-17	Triode	4-D	Thor. Fil.	7.5	1.25	7.	4.	3.	CCS	10	60	250	.....	40	.....	50	.....	15	2.	7.	841
										CCS			350	.....	47	.....	50	.....	15	2.	11.	
10-Y	ST-16	Triode	4-D	Thor. Fil.	7.5	1.25	7	4	3	CCS	10	60	250	.....	95	.....	45	.....	15	3.0	5.5	10-Y
												350	.....	135	.....	45	.....	15	3.5	8		
1625	ST-16	Beam Amp.	5-AZ	Cathode	12.6	0.45	0.20m	11	7	CCS	Same as Type 807.										1625		
										ICAS	Same as Type 807.												
VT85	ST-16	Triode	4-D		Same as Type 10-Y																		VT85
8005	ST-19	Triode	3-G	Thor. Fil.	10.0	3.25	5.0	6.4	1.0	ICAS	75	200	1000	.....	195	.....	160	.....	28.	9	115	8005
										ICAS	75	200	1250	.....	195	.....	190	.....	28.	9	170	

† Pentode Connection ▲ Tetrode Connection m Maximum.

GRID MODULATED R-F POWER AMPLIFIER — CLASS C TELEPHONY

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	Cgp	Cin	Cout		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	P. to P. Load In Ohms	Watts Driving Power		Watts Power Output
804	T-16	Pentode	5-J	Thor. Fil.	7.5	3.0	.01s m	16	14.5	CCS	40	50	1000	300	115	0	45	15	2	1.1	14	804
										CCS			1000	300	115	45	45	11	2	0.85	16	
										CCS			1250	300	115	45	45	11	2	0.85	21	
										ICAS	50	50	1500	300	130	45	50	13.5	3.7	1.3	28	
813	T-20	Beam Amp.	5-BA	Thor. Fil.	10.0	5.0	0.25m	16.3	14.0	CCS	100	100	1500	400	140	0	70	3	<2.0	40	813
													2000	400	120	0	75	3	.....	<2.0	50
832A Push Pull	T-16	Duo Beam Amp.	7-BP	Cathode	12.6	0.8	0.05s m	7.5	3.8	CCS	15	55	500	200	55	44	3.0	0	0.1	8.0	832-A
					6.3	1.6					CCS			750	200	60	29	2.0	0	0.1	
837	ST-16	Pentode	6-BM	Cathode	12.6	0.7	0.20s m	16	10	CCS	12	40	400	200	50	0	35	9	1	0.5	4	837
													500	200	45	0	30	7	0	0.2	5	
													500	200	43	40	30	6	0	0.15	5.5	
815 Push-Pull	T-16	Duo Beam Amp.	8-BY	Cathode	12.6	0.8	0.2m	14	8.5	CCS	20	75	400	125	40	75	3	0.4	0.32	10.5	815
					6.3	1.6					ICAS	25	75	500	125	40	75	3	0.4	0.28		13

SUPPRESSOR-MODULATED R-F POWER AMPLIFIER—CLASS C TELEPHONY

TYPE	CONSTRUCTION			EMITTER			CAPACITANCES			USE	MAXIMUM RATINGS		TYPICAL OPERATION								TYPE	
	Style	Class	Base	Type	Volts	Amps	C _{gp}	C _{in}	C _{cut}		Watts Plate Dissipation	Ma. Plate Current	Plate Volts	Screen Volts	Negative Grid Volts	Suppressor Volts	Ma. Plate Current	Ma. Screen Current	Ma. Grid Current	Watts Driving Power		Watts Power Output
2E22	ST-16	Pentode	5-J	Coated Fil.	6.3	1.5	0.2 ^m	13	8.0	CCS	30	110	500	250	R _{g1} =10K	-65	50	29	6.5	0.6	10.5	2E22
											CCS		750	250	R _{g1} =10K	-90	55	29	6.5	0.6	16.5	
804	T-16	Pentode	5-J	Thor. Fil.	7.5	3.0	.01 ^m	16	14.5	CCS	40	50	1000	21,000†	100	-35	45	33.5	5.5	0.7	16	804
										CCS			1250	27,000†	100	-35	48	35.5	7.	0.85	21	
										ICAS	50	50	1500	37,500†	115	-50	50	32	7.	0.95	28	
837	ST-16	Pentode	6-BM	Cathode	12.6	0.7	0.20 ^m	16	10	CCS	12	40	400	6500 ohms†	20	-55	35	37	8	0.4	4	837
													500	1400 ohms†	20	-65	30	23	3.5	0.1	5	

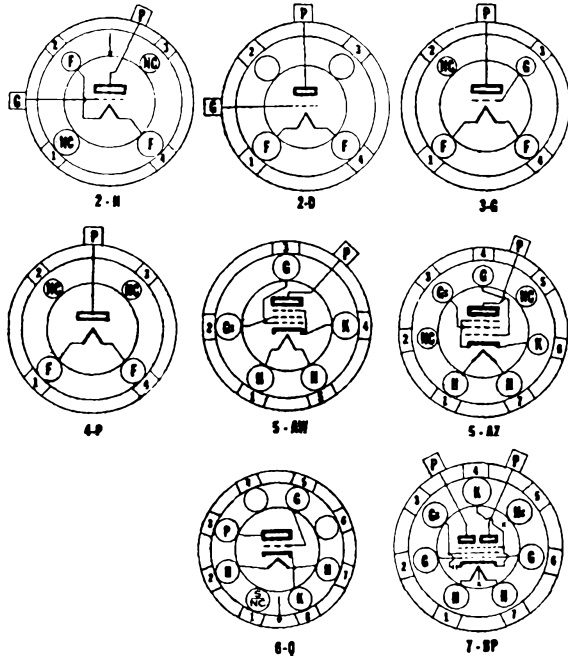
† Voltage taken from unmod. plate supply through resistor. S—Shielded. m Maximum.

RECTIFIERS

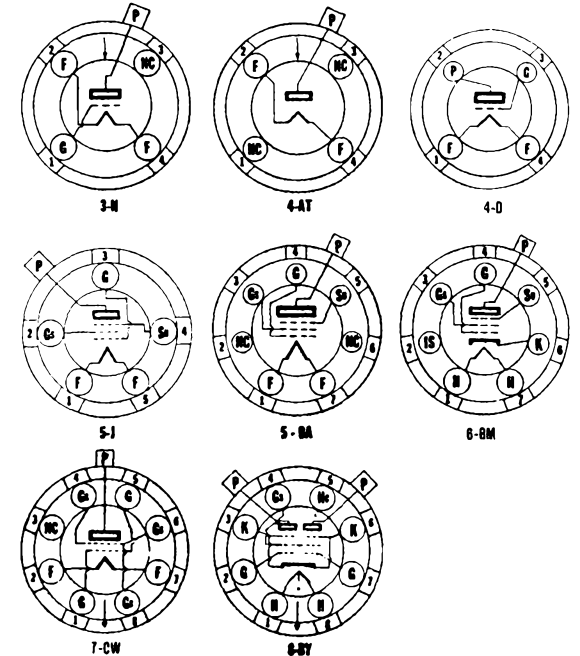
TYPE	CONSTRUCTION			EMITTER			USE	MAX. PEAK INVERSE PLATE VOLTS	MAX. PEAK PLATE CURRENT MA.	MAX. AVERAGE PLATE CURRENT MA.	TUBE VOLTAGE DROP	TYPE	
	STYLE	CLASS	BASE	Type	Volts	Amps							
816	ST-12	Diode Mercury Vapor	4-P	Fil.	2.5	2.0	H-W Rect.	7500	500	125	15	816	
866-A/866	ST-19	Diode Mercury Vapor	4-P	Fil.	2.5	5.0	H-W Rect.	10,000	1000	250	15	866-A/866	
872-A/872	T-18	Diode Mercury Vapor	4-AT	Fil.	5.0	7.5	H-W Rect.	10,000	5000	1250	10	872-A/872	
1616	T-16	Diode High Vacuum	4-P	Fil.	2.5	5.0	H-W Rect.	5500	800	130		1616	
								2500 Surge					

BASE DIAGRAMS

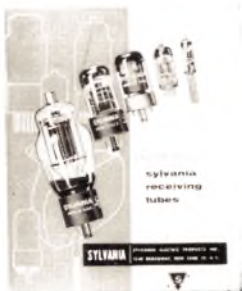
TUBE TYPES BY BASE ARRANGEMENT



BASE	TYPE	BASE	TYPE
2-D	808	5-AZ	1625
2-N	810	5-BA	813
3-G	809, 811-A, 812-A, 8005	6-BM	837
3-N	805	6-Q	1626
4-AT	872	7-BP	829B, 832-A
4-D	801, 107, VT25, 841	7-CK	2E26
4-P	816, 866, 1616	7-CW	3D24
5-AW	807, 5933/807W	7-CL	2E24
5-J	2E22, 804	7-CQ	2E30
		8-BY	815



Technical Literature



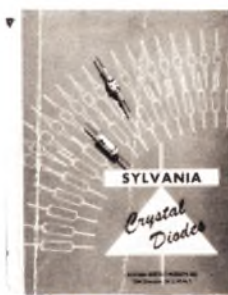
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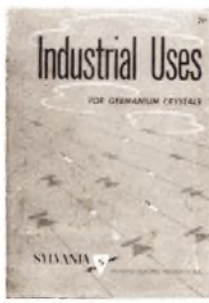
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