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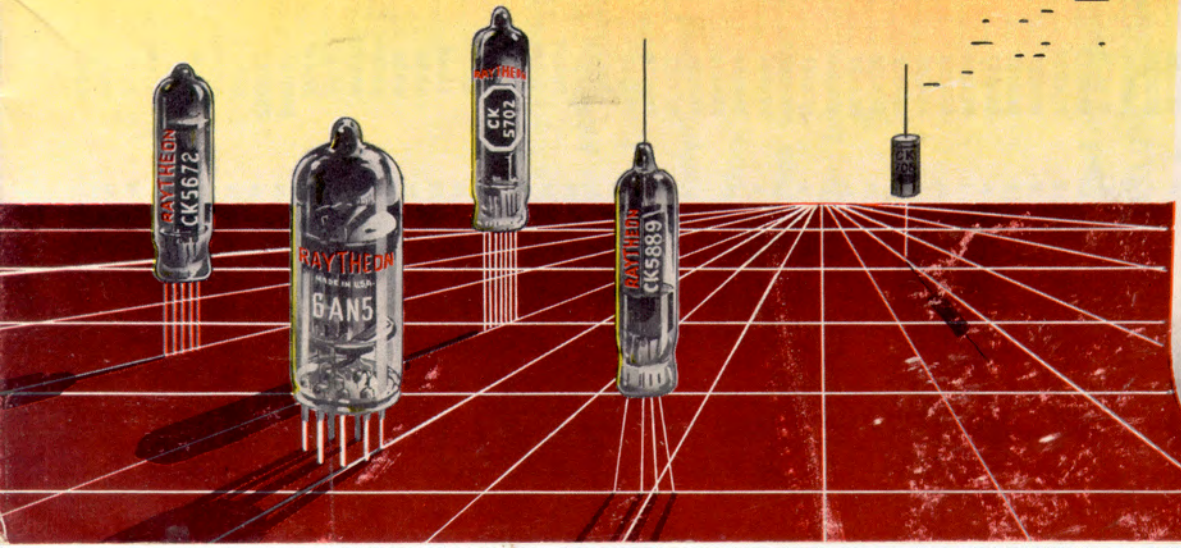
RAYTHEON

SUBMINIATURE
HEARING AID
RELIABLE
RUGGED
TRANSISTORS
CRYSTAL DIODES
NUCLEONIC
VOLTAGE REGULATOR
RECTIFIER
TRANSMITTING
MAGNETRON
KLYSTRON

SPECIAL PURPOSE TUBE CHARACTERISTICS



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NOTES

[1] Fully shielded by metallic coating.

[2] Leads are 0.016" diameter and 0.200" long.

[3] Conversion Conductance.

[4] Voltage Gain (times).

[5] Space-Charge tube, value given is cascade gain.

[6] Measured at 50 microwatts input to emitter.

[7] This type has an 8-lead subminiature button base.

[8] Water cooled.

[9] Filament center-tap provided for 1.25 or 2.5 volt operation. Type is designed for intermittent service operation.

SUBMINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST meg.	MUT. COND. μmhos	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE
			Volts	Ma.	Type		Length	Width	Thick-ness												
1AD4 [1]	Pentode	R-F Amplifier	1.25	100	Fil	5A	1.5	.385	.285	45	Rg = 2 meg.	45		2.8	0.8		0.5	2000			**1AD4** [1]
1AE5	Heptode	Mixer	1.25	60	Fil	6A	1.5	.400	.300	45	Rg = 0.2 meg.	45	0	0.9	2		0.2	200 [3]			**1AE5**
1AG4	Pentode	Power Amp.	1.25	40	Fil	5J	1.5	.385	.285	41.4	−3.6	41.4		2.4	0.6		0.18	1000	35	0.012	**1AG4**
1AG5	Diode-Pent.	Det.-Amplifier	1.25	30	Fil	6B	1.5	.385	.285	45	Rg = 5 meg.	45		0.8	0.25		0.26	350			**1AG5**
1AH4 [1]	Pentode	R-F Amplifier	1.25	40	Fil	5A	1.5	.385	.285	45	Rg = 5 meg.	45		0.75	0.2		1.5	750			**1AH4** [1]
1V6	Triode-Pent.	Converter	1.25	40	Fil	7BC	1.5	.410	.285	45	Rg = 5 meg.	45		0.40	0.15		1.0	200 [3]	Eb Triode = 45 Ib Triode = 0.4 ma.		**1V6**
2E31 [1] **2E32** [1-2]	Pentode	R-F Amplifier	1.25	50	Fil	5D	1.5	.385	.285	22.5	0	22.5		0.4	0.3		0.35	500			**2E31** [1] **2E32** [1-2]
2E35 **2E36** [2]	Pentode	Power Amp.	1.25	30	Fil	5B	1.5	.385	.285	45	−1.25	45		0.6	0.11		0.25	525	6	0.1	**2E35** **2E36** [2]
2G21 **2G22** [2]	Triode-Hept.	Converter	1.25	50	Fil	7B	1 9/16	.385	.285	22.5	Rg = 50,000	22.5	0	0.2	0.3		0.5	60 [3]	Eb Triode = 22.5 Ib Triode = 1 ma.		**2G21** **2G22** [2]
CK501AX	Pentode	Voltage Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	0	45		0.65	0.25		1.0	750	45 [4]		**CK501AX**
CK502AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	−1.25	45		0.6	0.15		0.2	550	6	0.1	**CK502AX**
CK503AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	−2	45		0.8	0.25		0.35	550	9.5	0.05	**CK503AX**
CK505AX	Pentode	Voltage Amp.	0.625	30	Fil	5J	1.25	.385	.285	22.5	−0.625	22.5		0.125	0.040		1.1	180	38 [4]		**CK505AX**
CK506AX	Pentode	Power Amp.	1.25	50	Fil	5J	1.5	.385	.285	45	−4.5	45		1.25	0.4		0.12	500	25	0.03	**CK506AX**
CK507AX	Pentode	Power Amp.	1.25	45	Fil	5J	1.5	.385	.285	45	−2	45		0.9	0.3		0.3	575	11	0.05	**CK507AX**
CK509AX	Triode	Voltage Amp.	0.625	30	Fil	4B	1.25	.385	.285	45	0			0.15			0.15	160	16 [4]		**CK509AX**
CK510AX	Dble-Tetr.	Voltage Amp.	0.625	50	Fil	7D	1.25	.400	.285	45	0			0.06			0.5	65	150 [5]		**CK510AX**
CK511X	Pentode	Voltage Amp.	1.25	50	Fil	6C	1.75	Dia. = .550		45	0	45		0.24	0.2		0.22	220	30 [4]	1.0	**CK511X**
CK512AX	Pentode	Voltage Amp.	0.625	20	Fil	5J	1.25	.385	.285	22.5	−0.625	22.5		0.125	0.040		1.25	160	37 [4]		**CK512AX**
CK515BX	Triode	Voltage Amp.	0.625	30	Fil	4B	1.19	Dia. = .315		45	0			0.15		24		160	16 [4]	1.0	**CK515BX**
CK516AX	Triode	Voltage Amp.	0.625	20	Fil	5M	1.25	.385	.285	22.5	−0.625			0.15			0.05	200	7.5 [4]	1.0	**CK516AX**
CK518AX [1]	Pentode	Power Amp.	1.25	30	Fil	5E	1.515	.380	.290	45	−2	45		0.8	0.25		0.35	550	9.5	0.5	**CK518AX** [1]
CK520AX	Pentode	Power Amp.	0.625	50	Fil	5J	1.25	.385	.285	45	−2.5	45		0.24	0.075		1.0	150	3.5	0.15	**CK520AX**
CK521AX	Pentode	Power Amp.	1.25	50	Fil	5J	1.5	.385	.285	22.5	−3	22.5		0.8	0.22		0.22	400	6	0.02	**CK521AX**
CK522AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.3	0.08		0.6	450	1.2	0.2	**CK522AX**
CK523AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	22.5	−1.2	22.5		0.3	0.075		0.3	360	2.5	0.075	**CK523AX**
CK524AX	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	15	−1.75	15		0.45	0.125		0.2	300	2.2	0.03	**CK524AX**
CK525AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	−1.2	22.5		0.25	0.06		0.33	325	2.2	0.06	**CK525AX**
CK526AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	22.5	−1.5	22.5		0.45	0.12		0.22	400	3.75	0.05	**CK526AX**
CK527AX	Pentode	Power Amp.	1.25	15	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.1	0.025		1.8	225	0.75	0.3	**CK527AX**
CK528AX [1]	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	22.5	0	22.5		0.3	0.08		0.6	450	1.2	0.2	**CK528AX**
CK529AX [1]	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	15	−1.25	15		0.32	0.075		0.3	350	1.6	0.05	**CK529AX** [1]
CK531DX	Pentode	Power Amp.	1.25	20	Fil	5J	1.25	.285	.220	15	−1.5	15		0.30	0.090		0.25	275	1.6	0.06	**CK531DX**
CK532DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	0	22.5		0.40	0.125		0.18	450	1.8	0.1	**CK532DX**
CK533AX	Pentode	Power Amp.	1.25	15	Fil	5J	1.5	.385	.285	22.5	0	22.5		0.36	0.09		0.5	400	1.8	0.075	**CK533AX**
CK534AX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.25	.385	.285	15	−0.625	15		0.0047	0.0014		12	20	30 [4]	2.2	**CK534AX**
CK535AX	Pentode	Power Amp.	1.25	20	Fil	5J	1.5	.385	.285	15	−1.25	15		0.32	0.075		0.3	350	1.6	0.05	**CK535AX**
CK536AX [1]	Pentode	Power Amp.	1.25	15	Fil	5E	1.5	.385	.285	22.5	0	22.5		0.36	0.09		0.5	400	1.8	0.075	**CK536AX** [1]
CK537AX [1]	Pentode	Power Amp.	1.25	20	Fil	5E	1.515	.390	.290	22.5	−1.5	22.5		0.45	0.12		0.22	400	3.75	0.05	**CK537AX** [1]
CK538DX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.0	.285	.220	15	−0.625	15		0.0046	0.002		10	18	28 [4]	2.2	**CK538DX**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the Field, it is not intended to indicate type availability.

SUBMINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS Inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE
			Volts	Ma.	Type		Length	Width	Thick-ness												
CK539DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	−1.4	22.5		0.25	0.075		0.25	300	2.2	0.1	**CK539DX**
CK541DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	30	0	30		0.25	0.075		0.5	425	1.4	0.2	**CK541DX**
CK542DX	Pentode	Power Amp.	1.25	15	Fil	5J	1.25	.285	.220	22.5	−2.0	22.5		0.425	0.13		0.15	325	3.75	0.05	**CK542DX**
CK542DXS [1]	Pentode	Power Amp.	1.25	15	Fil	5J	1.4	.290	.225	22.5	−2	22.5		0.425	0.13		0.15	325	3.75	0.05	**CK542DXS** [1]
CK543DX	Pentode	Voltage Amp.	0.625	15	Fil	5J	1.0	.285	.220	15	−0.625	15		0.005	0.0022		5.0	15	20 [4]		**CK543DX**
CK544DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	30	0	30		0.135	0.035		1.2	325	0.52	0.2	**CK544DX**
CK545DX	Pentode	Voltage Amp.	0.625	7.5	Fil	5F	1.0	.290	.235	15	−0.625	15		0.0046	0.002		12	16	25 [4]	2.2	**CK545DX**
CK546DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	22.5	0	22.5		0.375	0.085		0.2	425	1.75	0.1	**CK546DX**
CK547DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	30	0	30		0.240	0.060		0.5	425	1.35	0.2	**CK547DX**
CK548DX	Pentode	Power Amp.	1.25	10	Fil	5J	1.25	.285	.220	22.5	−1.4	22.5		0.240	0.060		0.25	300	2.1	0.1	**CK548DX**
CK549DX	Pentode	Voltage Amp.	0.625	10	Fil	5J	1.0	.285	.220	15	−0.625	15		0.0046	0.002		12.0	17	27 [4]		**CK549DX**
CK574AX [1]	Pentode	R-F Amplifier	0.625	20	Fil	5E	1.25	.390	.290	22.5	−0.625	22.5		0.125	0.040		1.25	160			**CK574AX** [1]
CK1034	Gas Diode	GM Counter			Cold	3A	2⅝	Dia. = .400		See Radiation Counter Tube Section for Characteristics											**CK1034**
CK1035	Gas Diode	GM Counter			Cold	3A	1.5	.385	.285	See Radiation Counter Tube Section for Characteristics											**CK1035**
CK1036	Gas Diode	HW Rectifier			Cold	5P	1 13/16	Dia. = .400		See Rectifier Tube Section for Characteristics											**CK1036**
CK1037	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											**CK1037**
CK1038	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											**CK1038**
CK1039	Gas Diode	Voltage Reg.			Cold	3A	1.75	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											**CK1039**
CK1042	Gas Diode	HW Rectifier			Cold	5N	2⅛	Dia. = .400		See Rectifier Tube Section for Characteristics											**CK1042**
CK5672	Pentode	Power Amp.	1.25	50	Fil	5F	1.5	.385	.285	67.5	−6.5	67.5		3.25	1.1			650	65	0.020	**CK5672**
CK5676	Triode	UHF Osc.	1.25	120	Fil	4B	1.5	.385	.285	135	−5			4		15		1600			**CK5676**
CK5677	Triode	UHF Osc.	1.25	60	Fil	4A	1.5	.385	.285	135	−5.5			1.9		16		850			**CK5677**
CK5678 [1]	Pentode	R-F Amplifier	1.25	50	Fil	5A	1.5	.385	.285	67.5	5 meg	67.5		1.8	0.48		1.0	1100			**CK5678** [1]
CK5697	Triode	Electrometer	0.625	20	Fil	4C	1.25	.400	.285	12	−3			0.22		2.1		135	Max. I_c [1] = 5×10^{-13} amp.		**CK5697**
CK5702	Pentode	R-F Amplifier	6.3	200	Htr	7C	1.5	Dia. = .400		120	Rk200	120		7.5	2.5		0.34	5000			**CK5702**
CK5702WA	Pentode	R-F Amplifier	6.3	200	Htr	7C	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK5702WA**
CK5703	Triode	UHF Osc.	6.3	200	Htr	5G	1.5	Dia. = .400		120	Rk220			9		25		5000			**CK5703**
CK5703WA	Triode	UHF Osc.	6.3	200	Htr	5G	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK5703WA**
CK5704	Diode	Detector	6.3	150	Htr	4D	1.5	Dia. = .315		Max. RMS Plate Voltage = 150v; Max. Io = 9 madc											**CK5704**
CK5744	Triode	Amp.-HF Osc.	6.3	200	Htr	5H	1.5	Dia. = .400		250	Rk500			4		70		4000			**CK5744**
CK5744WA	Triode	Amp.-HF Osc.	6.3	200	Htr	5H	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK5744WA**
CK5783	Gas Diode	Volt. Reference			Cold	3A	1⅝	Dia. = .400		See Voltage Reference Tube Section for Characteristics											**CK5783**
CK5783WA	Gas Diode	Volt. Reference			Cold	3A	1⅝	Dia. = .400		See Voltage Reference Tube Section for Characteristics											**CK5783WA**
CK5784	Pentode	Mixer-Gated Amp.	6.3	200	Htr	7A	1.5	Dia. = .400		120	−2	120	0	5.2	3.5			3200			**CK5784**
CK5784WA	Pentode	Mixer-Gated Amp.	6.3	200	Htr	7A	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK5784WA**
CK5785	Diode	HW Rectifier	1.25	15	Fil	7F	1.5	.400	.300	See Rectifier Tube Section for Characteristics											**CK5785**
CK5787	Gas Diode	Volt.Regulator			Cold	3A	2 1/16	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											**CK5787**
CK5787WA	Gas Diode	Volt.Regulator			Cold	3A	2 1/16	Dia. = .400		See Voltage Regulator Tube Section for Characteristics											**CK5787WA**
CK5829	Dble.Diode	Detector	6.3	150	Htr	7FA	1.5	.410	.385	Max. Inverse Peak Voltage = 330v; Max. Io = 5 ma. per plate											**CK5829**
CK5829WA	Dble. Diode	Detector	6.3	150	Htr	7FA	1.5	.410	.385	See Reliable Cathode Type Subminiature Section for Characteristics											**CK5829WA**
CK5851 [7]	Beam Pent.	R-F Pwr.Amp	1.25 2.5	110 55	Fil	8CA	1.6	Dia. = .400		125	−7.5	125		5.5	0.9		0.175	1600			**CK5851** [7]
CK5854	Pentode	Power Amp.	1.25	30	Fil	5J	1.5	.385	.285	45	−2.0	45		0.8	0.25		0.35	550	9.5	0.05	**CK5854**
CK5873 [7]	Dble. Triode	Voltage Amp.	6.3	300	Htr	8K	1.5	Dia. = .400		150	−3.0			9.0		22		2900	(Each Unit)		**CK 5873** [7]
CK5875 [1]	Pentode	Radiosonde	1.25	100	Fil	5A	1.5	.385	.285	90	0	90		3.5	1.0			2500			**CK5875** [1]

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the Field, it is not intended to indicate type availability.

SUBMINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			TERM. CONN.	MAX. DIMENSIONS Inches			PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	OUTPUT milliwatts	LOAD RESIST. meg.	TYPE
			Volts	Ma.	Type		Length	Width	Thick-ness												
CK5884	Dble. Tetr.	Electrometer	1.25	10	Fil	5K	1.625	.400	.285	4.5	−3.0			0.02		0.75		15	Nom. $Ic^1 = 1x10^{-14}$		**CK5884**
CK5885 [7]	Dble. Tetr.	Electrometer	1.25	20	Fil	8CC	1.625	Dia. = .389		13.5	−3.0			0.185		2.4		160	Nom. $Ic^1 = 1x10^{-12}$		**CK5885** [7]
CK5886	Pentode	Electrometer	1.25	10	Fil	5C	1.5	.400	.285	10.5	3	Triode Conn.		0.2		2		160	Max. $Ic^1 = 2x10^{-13}$ amp.		**CK5886**
CK5889	Pentode	Electrometer	1.25	7.5	Fil	4G	1.6	Dia. = .400		12	−2.0	4.5		0.005	0.005		18	14	Max. $Ic^1 = 3x10^{-15}$ amp.		**CK5889**
CK5967 [7]	Dble. Triode	R-F Amplifier	1.25	120	Fil	8CK	1.75	Dia. = .400		45	Rg = 5 meg.			3.0		18		2000	(Each Unit)		**CK5967** [7]
CK5968 [7]	Dble. Triode	Mixer	1.25	120	Fil	8CE	1.75	Dia. = .400		45	0			0.7		45		1300	(Each Unit)		**CK5968** [7]
CK5969 [7]	Dble. Tetr.	R-F Pwr.Amp.	1.25	200	Fil	8CB	1.62	Dia. = .400		135	−3	45		6.0	0.5			1700	(Each Unit)		**CK5969** [7]
CK5970 [7]	Dble. Pent.	R-F Amplifier	1.25	160	Fil	8CD	1.75	Dia. = .400		45	Rg = 5 meg.	45		3.0	0.9		0.17	1850	(Each Unit)		**CK5970** [7]
CK5971	Triode	Amp.-Osc.	1.25	80	Fil	7CD	1.5	.385	.285	135	−3			4.0		23		2150			**CK5971**
CK5972 [1]	Pentode	R-F Amplifier	1.25	60	Fil	5A	1.5	.400	.300	67.5	Rg = 2 meg.	67.5		1.9	0.5		1.0	1150			**CK5972** [1]
CK5975	Triode	Amp.-Osc.	6.3	175	Htr	7BB	1.5	Dia. = .400		100	Rk270			10		17.5		5100			**CK5975**
CK5995	Diode	HW Rectifier	6.3	300	Htr	7BA	1.75	Dia. = .400		See Rectifier Tube Section for Characteristics											**CK5995**
CK6021 [7]	Dble. Triode	Voltage Amp.	6.3	300	Htr	8CF	1⅜	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK6021** [7]
CK6029	Triode	UHF Osc.	1.25	200	Fil	4A	1.5	.385	.285	90	−4			11		8.5		2000			**CK6029**
CK6050	Triode	UHF Osc.	1.25	120	Fil	4A	1.5	.385	.285	135	−5			4.0		16		1600			**CK6050**
CK6051	Pentode	Power Amp.	1.25	100	Fil	5L	1.5	.385	.285	45	−4	45		3.0	0.9		0.035	1200	50	0.02	**CK6051**
CK6088	Pentode	Power Amp.	1.25	20	Fil	5F	1.5	.385	.285	45	−1.25	45		0.55	0.135		0.85	550	9.5	0.2	**CK6088**
CK6092	Pentode	Power Amp.	1.25	50	Fil	5F	1.5	.385	.285	67.5	−6.5	67.5		2.9	0.8			750	80	0.02	**CK6092**
CK6110 [7]	Dble. Diode	FW Rectifier	6.3	150	Htr	8CH	1⅜	Dia. = .400		See Rectifier Tube Section for Characteristics											**CK6110** [7]
CK6111 [7]	Dble.Triode	Voltage Amp.	6.3	300	Htr	8CF	1⅜	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK6111** [7]
CK6112 [7]	Dble. Triode	Voltage Amp.	6.3	300	Htr	8CF	1⅜	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK6112** [7]
CK6147 [7–9]	Beam Pentode	RF Pwr Amp.	1.25 2.5	125 62.5	Fil	8CG	1.6	Dia. = .400		125	−7.5	125		5.5	0.9		0.175	1600			**CK6147** [7–9]
CK6152	Triode	Amp.-Osc.	6.3	200	Htr	7BB	1.5	Dia. = .400		See Reliable Cathode Type Subminiature Section for Characteristics											**CK6152**
CK6213	Gas Diode	Voltage Ref.			Cold	3A	1⅜	Dia. = .400		See Voltage Reference Tube Section for Characteristics											**CK6213**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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RUGGED TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT Volts	HTR or FILAMENT Amps	HTR or FILAMENT Type	BASING	MAX. DIMENSIONS Height	MAX. DIMENSIONS Diam.	PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	TYPE
RK3B24W	Diode	HW Rectifier	2.5 5.0	3.0 3.0	Fil	8EA	$4\frac{13}{16}$	$1\frac{1}{2}$	See Rectifier Tube Section for Characteristics									**RK3B24W**
5R4WGY	Dble. Diode	FW Rectifier	5.0	2.0	Fil	8WB	$5\frac{5}{16}$	$2\frac{1}{16}$	See Rectifier Tube Section for Characteristics									**5R4WGY**
6AK5W	Pentode	RF Amplifier	6.3	0.175	Htr	7BD	$1\frac{3}{4}$	$\frac{3}{4}$	120	−2	120		7.5	2.5		0.34	5000	**6AK5W**
6AL5W	Dble. Diode	Detector	6.3	0.3	Htr	9M	$1\frac{3}{4}$	$\frac{3}{4}$	Max. Peak Inverse = 330 v; Max. Io = 9 madc per plate									**6AL5W**
6AS6W	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	$1\frac{3}{4}$	$\frac{3}{4}$	120	−2	120	0	5.2	3.5			3200	**6AS6W**
6C4W	Triode	Osc.-Amplifier	6.3	0.15	Htr	9U	$1\frac{3}{4}$	$\frac{3}{4}$	250	−8.5			10.5		17		2200	**6C4W**
6J5WGT	Triode	Voltage Amplifier	6.3	0.3	Htr	9R	$3\frac{5}{16}$	$1\frac{5}{16}$	250	−8			9.0		20		2600	**6J5WGT**
6J6W	Dble. Triode	UHF Oscillator	6.3	0.45	Htr	7BF	$2\frac{1}{8}$	$\frac{3}{4}$	100	Rk50			8.5		38		5300 (Each Unit)	**6J6W**
6SA7WGT	Heptode	Converter	6.3	0.3	Htr	9V	$3\frac{5}{16}$	$1\frac{9}{32}$	250	Rg = 20000	100	−2	3.5	8.5		1.0	450 [3]	**6SA7WGT**
6SJ7WGT	Pentode	RF-AF Amplifier	6.3	0.3	Htr	9L	$3\frac{5}{16}$	$1\frac{5}{16}$	250	−3	100	0	3.0	0.8		>1.0	1650	**6SJ7WGT**
6SN7WGT	Dble. Triode	Voltage Amplifier	6.3	0.6	Htr	8BD	$3\frac{5}{16}$	$1\frac{5}{16}$	250	−8			9.0		20		2600 (Each Unit)	**6SN7WGT**
6X4W	Dble. Diode	FW Rectifier	6.3	0.6	Htr	9Q	$2\frac{5}{8}$	$\frac{3}{4}$	See Rectifier Tube Section for Characteristics									**6X4W**
6X5WGT	Dble. Diode	FW Rectifier	6.3	0.6	Htr.	8XB	$3\frac{5}{16}$	$1\frac{5}{16}$	See Rectifier Tube Section for Characteristics									**6X5WGT**
12J5WGT	Triode	Voltage Amplifier	12.6	0.15	Htr	9R	$3\frac{5}{16}$	$1\frac{5}{16}$	250	−8			9.0		20		2600	**12J5WGT**

RADIATION COUNTER (GEIGER-MUELLER) TUBES

(All glass, self-quenching)

TYPE	MAX. DIMENSIONS Inches Length	MAX. DIMENSIONS Inches Diam.	TERM. CONN.	OPERATING VOLTAGE RANGE Volts dc	PLATEAU LENGTH Volts dc	RELATIVE PLATEAU SLOPE Per 100v	GEIGER THRESHOLD Volts dc max.	BACKGROUND Unshielded counts/min.	AMBIENT TEMP. RANGE °Cent.	WALL WEIGHT Nominal mg./sq.cm.	EFFICIENCY %	LIFE counts	TYPE
CK1B90	$8\frac{1}{4}$	$\frac{13}{16}$	8HA	Thres. +50	>150	3%	1100	60	−40 to +50	35	90	10^8	**CK1B90**
CK1018	$8\frac{1}{4}$	$\frac{13}{16}$	8HA	850–950	>150	3%	850	60	−40 to +55	35	90	10^8	**CK1018**
CK1019	$8\frac{1}{4}$	$\frac{13}{16}$	8HA	875–975	>150	3%	880	60	−40 to +55	35	90	10^8	**CK1019**
CK1020	6	$\frac{3}{4}$	9S	850–950	>150	3%	850	60	−40 to +55	35	90	10^8	**CK1020**
CK1021	$5\frac{1}{4}$	$\frac{21}{32}$	9S	850–950	>150	3%	850	60	−40 to +55	35	90	10^8	**CK1021**
CK1023	5	$\frac{3}{4}$	5DA	850–950	>150	3%	850	60	−40 to +55	35	90	10^8	**CK1023**
CK1026	3	$\frac{3}{4}$	8HB	850–950	>150	30%	760	30	−70 to +50	175		10^8	**CK1026**
CK1029	$5\frac{1}{4}$	$\frac{21}{32}$	9S	850–950	>150	3%	850	60	−40 to +55	35	90	10^8	**CK1029**
CK1032	3	$\frac{3}{4}$	8HB	1050–1200	>150	30%	1000	30	−70 to +50	175		10^8	**CK1032**
CK1034	$2\frac{5}{8}$	0.400	3A	700		20%	585		−55 to +70	Hvy		$>10^{10}$	**CK1034**
CK1035	1.5	W = .385 Th = .285	3A	700			585		−55 to +70	Hvy		$>10^{10}$	**CK1035**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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RELIABLE TUBES

Since the announcement in October 1951 of the first five RELIABLE cathode type subminiature tubes, Raytheon has been requested by the Armed Services to change the type numbers originally registered to new numbers which would more clearly identify each tube's association with its prototype. Accordingly, type 6148 is now known as type 5702WA, type 6149 as 5703WA, type 6150 as 5784WA, and type 6151 as 5744WA. This change is in type number only and in no way affects the quality of the tubes offered for sale. Type 6152, having no prototype with 0.200 amp. heater, remains unchanged in type designation.

Although certain minor modifications in tube structure have been made to meet new test requirements, the entire line of RELIABLE cathode type subminiature tubes, with the exception of the button stem types, is basically the same group of special purpose subminiature tubes which Raytheon has been producing since 1941. This line of subminiature tubes has been in *continuous* production for the past five years. Filament type subminiatures with many similar structural features have been in continuous production for twelve years. Button stem types have been in low scale production for the last two years. Sufficient field and design test data have now been accumulated to permit announcement of these tubes as RELIABLE types.

It is planned to add additional types to the Raytheon RELIABLE line in succeeding months. These new types will all carry RELIABLE ratings and will be released as soon as sufficient long life and other performance data are accumulated to insure reliable field results.

TUBE RELIABILITY

Today RELIABILITY is a very important word in the electronic industry. More reliable component parts, particularly electron tubes, are essential to the success of most modern electronic applications. To be considered reliable, an electron tube must be capable of performing a desired function in an equipment with a very low probability of failure for some definite life period. The "desired function" which any particular tube type may be expected to perform may vary widely from one application to another. In one equipment, stability of some particular electrical characteristic may be the prime consideration — in another, mechanical stability under vibration or shock; still another, may require very long life under normal or perhaps even a high ambient temperature, and so on. Unfortunately, the design and processing of any one particular tube type to meet these various and in some cases conflicting reliability requirements is limited not only by the ingenuity of the manufacturer but in many cases by the Laws of Nature. Tube manufacture is a series of compromises and the most reliable tubes are made by the manufacturer who through his experience and knowledge of application requirements makes the most judicious compromises in his design and manufacturing procedures.

Raytheon's field experience with the prototypes of the flat press Reliable tube types has indicated the desirability of sacrificing heater power for improved reliability of certain performance characteristics. These types have been designed with somewhat higher heater current and higher cathode temperature than has been common in other cathode type subminiatures of this general class. The higher cathode temperature results in:

1. Lower vibrational output since it permits tighter cathode to mica spacer fit (limited by heat loss through spacers on lower temperature cathodes)
2. Improved low heater voltage performance
3. Improved peak current output for class C and pulse applications
4. Improved high temperature life performance by increasing resistance of cathode to gas poisoning
5. Reduced shot effect noise and partition noise by maintaining a higher transconductance level at lower heater supply voltage conditions and throughout life.

In analyzing the factors influencing reliability in electron tubes, consideration must be given to the causes of failure of tubes now in service. A tube may fail prematurely in service for one of two basic reasons; either it was improperly manufactured or it was improperly used. *Manufacturing* defects may be either electrical or mechanical in nature and are the result of poor workmanship on the part of the tube supplier. *Application* defects may be either mechanical or electrical in nature and are a result of insufficient knowledge on the part of tube user of the limitations of the tube type involved.

Factors which influence manufacturing defects are:

1. Improper tube design
2. Inadequate personnel training and supervision
3. Improper equipment setup, maintenenance and operation
4. Inadequate processing schedules
5. Insufficient quality control.

There is no substitute for *manufacturing experience* in the control of these factors. Continuity of production is the best guarantee of low probability of failure caused by manufacturing defects.

Factors which influence application defects are:

1. Insufficient published data on tube characteristics
2. Low margin of safety on published ratings
3. Low margin of safety in circuit design;
   a. failure to take into account normal characteristics spread,
   b. use of tubes outside of published ratings,
   c. lack of appreciation of characteristics changes during life.
4. Circuit design dependence upon uncontrolled tube characteristic

Good liaison between the tube producer and the tube user is the best guarantee of low probability of failure caused by application defects.

RELIABLE CATHODE TYPE SUBMINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HEATER Volts	HEATER Amps.	TERM. CONN.	MAX. DIMENSIONS Height	MAX. DIMENSIONS Diam.	PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. umhos	TYPE
CK5702WA	Pentode	RF Amplifier	6.3	0.2	7C	1.5	.400	120	Rk200	120	0	7.5	2.5		0.34	5000	**CK5702WA**
CK5703WA	Triode	UHF Osc.	6.3	0.2	5G	1.5	.400	120	Rk200			9.0		25		5000	**CK5703WA**
CK5744WA	Triode	Amp.-HF Osc.	6.3	0.2	5H	1.5	.400	250	Rk500			4.0		70		4000	**CK5744WA**
CK5783WA	Gas Diode	Volt. Reference	Cold		3A	1 5/8	.400	See Voltage Reference Tube Section for Characteristics									**CK5783WA**
CK5784WA	Pentode	Mixer-Gated Amp.	6.3	0.2	7A	1.5	.400	120	−2	120	0	5.2	3.5			3200	**CK5784WA**
CK5787WA	Gas Diode	Volt. Regulator	Cold		3A	2 1/16	.400	See Voltage Regulator Tube Section for Characteristics									**CK5787WA**
CK5829WA	Dble. Diode	Detector	6.3	.015	7FA	1.5	W=.410 Th=.385	Max. Inverse Peak Voltage=330 v; Max. Io=5 ma. per plate									**CK5829WA**
CK6021 [7]	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk150			6.5		35		5400 (Each Unit)	**CK6021** [7]
CK6110 [7]	Dble. Diode	FW Rectifier	6.3	0.15	8CH	1 3/8	.400	See Rectifier Tube Section for Characteristics									**CK6110** [7]
CK6111 [7]	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk220			8.5		20		5000 (Each Unit)	**CK6111** [7]
CK6112 [7]	Dble. Triode	Voltage Amp.	6.3	0.3	8CF	1 3/8	.400	100	Rk1500			0.8		70		1800 (Each Unit)	**CK6112** [7]
CK6152	Triode	Amp.-Osc.	6.3	0.2	7BB	1.5	.400	200	Rk680			12.5		15.5		4000	**CK6152**

RELIABLE MINIATURE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT Volts	HTR or FILAMENT Amps.	HTR or FILAMENT Type	BASING	MAX. DIMENSIONS Inches Height	MAX. DIMENSIONS Inches Diam.	PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	OUTPUT watts	LOAD RESIST. ohms	TYPE
CK5654	Pentode	R-F Amplifier	6.3	0.175	Htr	7BD	1 3/4	3/4	120	Rk200	120		7.5	2.5		0.34	5000			**CK5654**
CK5670	Dble. Triode	Voltage Amp.	6.3	0.35	Htr	8CJ	1 3/4	7/8	150	Rk240			8.2		35		5500	(Each Unit)		**CK5670**
CK5686	Pentode	RF-AF Power Amp.	6.3	0.35	Htr	9J	2 3/16	7/8	250	−12.5	250		27	3.0			3300	2.7	9000	**CK5686**
CK5725	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	1 3/4	3/4	120	−2	120	0	5.2	3.5			3200			**CK5725**
CK5726	Dble. Diode	Same as 6AL5	6.3	0.3	Htr	9M	1 3/4	3/4	Max. Peak Inverse=330v; Max. Io=9 madc per Plate.											**CK5726**
CK5749	Pentode	R-F Amplifier	6.3	0.3	Htr	9X	2 1/8	3/4	250	Rk68	100	0	11	4.2		1.0	4400			**CK5749**
CK5750	Heptode	Converter	6.3	0.3	Htr	8Z	2 1/8	3/4	250	Rg20k	100	−1.5	2.6	7.5		1.0	475 [8]			**CK5750**
CK5751	Dble. Triode	Voltage Amp.	6.3 12.6	0.35 0.175	Htr	9W	2 3/16	7/8	250	−3			1.0		70	0.058	1200	(Each Unit)		**CK5751**
CK5814	Dble. Triode	Voltage Amp.	6.3 12.6	0.35 0.175	Htr	9W	2 3/16	7/8	250	−8.5			10.5		17	0.0077	2200	(Each Unit)		**CK5814**
CK6186	Pentode	RF Amplifier	6.3	0.3	Htr	7BD	2 1/8	0.75	250	Rk200	150		7.0	2.0		0.8	5000			**CK6186**
CK6187	Pentode	Mixer-Gated Amp.	6.3	0.15	Htr	9P	1 3/4	0.75	120	−2	120	0	5.2	3.5			3200			**CK6187**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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GERMANIUM CRYSTAL DIODES

TYPE	TYPICAL APPLICATION	TERM CONN.	MAX. DIMENSIONS Inches			MAX. DC INVERSE VOLTAGE	MAX. PEAK ANODE CURR. ma.	MAX. AVERAGE DC ANODE CURR. ma.	MIN. FORWARD CURRENT AT +1 Volt ma.	MAX. INVERSE CURRENT AT −5 Volts ma.	MAX. INVERSE CURRENT AT −10 Volts ma.	MAX. INVERSE CURRENT AT −50 Volts ma.	MAX. INVERSE CURRENT AT −100 Volts ma.	MIN. INVERSE VOLTAGE FOR ZERO DYNAMIC RESIST.	AVE. INVERSE CURRENT AT −50 Volts 70°C. ma.	SHUNT CAP. mmf.	AMBIENT TEMP. RANGE °Cent.	TYPE
			Length	Diam.	Lead Length													
1N66	Gen. Purpose Diode	7CC	0.400	0.175	1	60	150	50	5.0		0.05	0.8		70	0.43	1.0	−50 to +100	**1N66**
1N67	50V DC Restorer	7CC	0.400	0.175	1	80	100	35	4.0	0.005		0.05		100	0.1	1.0	−50 to +100	**1N67**
1N68	100V DC Restorer	7CC	0.400	0.175	1	100	100	35	3.0					120	0.15	1.0	−50 to +100	**1N68**
CK705	Gen. Purpose Diode	7CC	0.400	0.175	1	60	150	50	5.0		0.05	0.8		70	0.43	1.0	−50 to +100	**CK705**
CK706	Video Detector	7CC	0.385	0.140	1	RF efficiency at 60 MC is approx. 50%					0.20			50			−50 to +100	**CK706**
CK707	50V DC Restorer	7CC	0.400	0.175	1	80	100	35	3.5	0.008		0.10		100	0.18	1.0	−50 to +100	**CK707**
CK708	100V DC Restorer	7CC	0.400	0.175	1	100	100	35	3.0				0.625	120	0.15	1.0	−50 to +100	**CK708**
CK709	4 Matched Diodes	8L	2⅝	1 5/16	Octal Base	60	150	50		Matched within 2.5% at +1 Volt.							−50 to +100	**CK709**
CK710	UHF Converter	7CC	0.385	0.140	1	3	150	50	3.0at 0.5v	0.2at −0.6v						1.7	−50 to +100	**CK710**
CK711	4 Matched Diodes	8L	1.75	1 3/16	Octal Base	80	100	35	Special matched sections. Refer to Data Sheet.								−50 to +100	**CK711**
CK712	200 Volt Diode	7CC	0.400	0.175	1	200	70	22.5	1.0	Max. dissipation 80 mw at 25°C.			0.8 at −200v	225		1.0	−50 to +100	**CK712**
CK713	Computer Diode	7CC	0.400	0.175	1	75	150	50	21 at +2v			0.25 at −40v	(DC characteristics at 50°C.)			1.0	−50 to +100	**CK713**
CK715	Freq. Multiplier	7CC	0.385	0.140	1	40	125	35	10		0.20			50			−50 to +100	**CK715**

Note: DC characteristics change with temperature, unless otherwise noted all characteristics are at 25°C.

TRANSISTORS

TYPE	CONSTRUCTION	TYPICAL APPLICATION	BASING	MAX. DIMENSIONS Inches		COLLECTOR VOLTS	EMITTER VOLTS	COLLECTOR CURR. ma.	EMITTER CURR. ma.	CURRENT AMPLIFICATION minimum	FREQ. RESPONSE minimum	NOISE FIGURE at 1 KC maximum	TYPE
				Height	Diam.								
CK716	Point Contact	AF-RF Amplifier	9N	0.65	0.255	−15	0.5	2.5	1.0	1.2	100 kc	65 db.	**CK716**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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RECTIFIER TUBES

TYPE	CONSTRUCTION	HEATER or FILAMENT			BASING	MAX. DIMENSIONS Inches		MAX. PEAK INVERSE VOLTAGE	MAX. PEAK PLATE CURRENT PER PLATE	MAX. DC OUTPUT CURRENT	AVERAGE TUBE DROP Volts	BASE	TYPE
		Volts	Amps.	Type		Height	Diam.						
BH	Full Wave—Gas			Cold	8EC	4 3/8	1 13/16	1,000	400 ma.	125 ma.	90	4-pin	**BH**
0Z4A/ CK1003	Full Wave—Gas			Cold	8XA	2 5/8	1 5/16	880	330 ma.	110 ma.	24	Octal	**0Z4A/ CK1003**
2X2A	Half Wave—High Vacuum	2.5	1.75	Htr	8ED	4 17/32	1 9/16	12,500	60 ma.	7.5 ma.		4-pin	**2X2A**
3B24W	Half Wave—High Vacuum	2.5 5.0	3.0 3.0	Fil	8EA	4 13/16	1 1/2	20,000 20,000	150 ma. 300 ma.	30 ma. 60 ma.		4-pin	**3B24W**
3B26	Clipper Diode—High Vacuum	2.5	4.75	Htr	8X	4 3/8	1 5/16	15,000	8 amp.	20 ma.	130	Octal	**3B26**
3B29	Half Wave—High Vacuum	2.5	4.75	Htr	See Data	5 3/8	1 9/16	16,000	250 ma.	65 ma.	130	4-pin	**3B29**
4B31	Clipper Diode—High Vacuum	5.0	5.25	Htr	See Data	6 3/4	2 9/16	16,000	16 amp.	60 ma.	150	Jumbo 4-pin	**4B31**
5R4GY	Full Wave—High Vacuum	5.0	2.0	Fil.	8WB	5 5/16	2 1/16	2,800	650 ma.	175 ma.		Octal	**5R4GY**
5R4WGY	Full Wave—High Vacuum	5.0	2.0	Fil.	8WB	5 5/16	2 1/16	2,800	650 ma.	175 ma.		Octal	**5R4WGY**
6X4W	Full Wave—High Vacuum	6.3	0.6	Htr	9Q	2 5/8	0.75	1,250	210 ma.	70 ma.		Octal	**6X4W**
6X5WGT	Full Wave—High Vacuum	6.3	0.6	Htr	8XB	3 5/16	1 5/16	1,250	210 ma.	70 ma.	22	Octal	**6X5WGT**
RK72	Half Wave—High Vacuum	2.5	3.0	Fil.	8EB	4 13/16	1 1/2	20,000	150 ma.	30 ma.	200	4-pin	**RK72**
RK73	Half Wave—High Vacuum	2.5	4.25	Fil.	8AB	4 3/8	1 5/16	13,000	3 amp.	20 ma.	135	Octal	**RK73**
RX120	Half Wave—Mercury, Argon	2.5	30.0	Htr	See Data	8 15/16	3 13/16	150	120 amp.	20 amp.	5	Mogul	**RX120**
RX120A	Half Wave—Mercury	2.5	30.0	Htr	See Data	8 15/16	3 13/16	300 750	120 amp. 120 amp.	20 amp. 10 amp.	6 6	Mogul	**RX120A**
RX212	Half Wave—Mercury	2.5	30.0	Htr	See Data	12	3 7/8	1,000	120 amp.	20 amp.	10	Mogul	**RX212**
RX215	Full Wave—Mercury	2.5	30.0	Htr	See Data	8	3 7/8	500	90 amp.	15 amp.	10	S. Jumbo 4-pin	**RX215**
RK816	Half Wave—Mercury	2.5	2.0	Fil.	8EB	4 11/16	1 9/16	7,500	500 ma.	125 ma.		4-pin	**RK816**
RK866A	Half Wave—Mercury	2.5	5.0	Fil.	8EB	6 9/16	2 7/16	10,000	1 amp.	250 ma.	15	4-pin	**RK866A**
RK872A	Half Wave—Mercury	5.0	7.5	Fil.	See Data	8 1/2	2 5/16	10,000	5 amp.	1.25 amp.	10	Jumbo 4-pin	**RK872A**
CK1005	Full Wave—Gas	6.3	0.1	Note Below	8Y	2 5/8	1 5/16	450	210 ma.	70 ma.	20	Octal	**CK1005**
CK1006	Full Wave—Gas	1.75	2.0	Note Below	8EF	4 11/16	1 13/16	1,600	600 ma.	200 ma.	20	4-pin	**CK1006**
CK1007	Full Wave—Gas	1.0	1.2	Note Below	8WA	2 5/8	1 5/16	980	330 ma.	110 ma.	24	Octal	**CK1007**
CK1012	Full Wave—Gas	1.75	2.0	Note Below	8EF	4 11/16	1 13/16	1,200	900 ma.	300 ma.	25	4-pin Med.	**CK1012**
CK1024	Full Wave—Gas			Cold	8XA	2 5/8	1 5/16	1,000	480 ma.	175 ma.	24	Octal	**CK1024**
CK1028	Half Wave—Gas	6.3	0.55	Fil.	8VA	2 1/4	3/4	2,500	300 ma.	100 ma.	15	7-pin Min.	**CK1028**
CK1036	Half Wave—Gas			Cold	5P	1 13/16	0.400	1,500	10 ma.	100 μa.		Flex. Leads	**CK1036**
CK1042	Half Wave—Gas			Cold	5N	2 1/8	0.400	2,800	30 ma.	8 ma.	120	Flex. Leads	**CK1042**
1641/RK60	Full Wave—High Vacuum	5.0	3.0	Fil.	8E	5 3/4	2 1/16	4,500 2,500	150 ma. 330 ma.	50 ma. 250 ma.	60	4-pin	**1641/RK60**
CK5517	Half Wave—Gas			Cold	7CB	2 1/4	3/8	2,800	100 ma.	12 ma.	100	7-pin Min.	**CK5517**
CK5642	Half Wave — High Vacuum	1.25	0.14	Fil.	5DB	2	0.210	10,000	Television Pulse Rect.			Flex. Leads	**CK5642**
CK5785	Half Wave—High Vacuum	1.25	0.015	Fil.	7F	1 1/2	W = 0.4 Th = 0.3	3,500	450 μa.	100 μa.	17	Flex. Leads	**CK5785**
CK5995	Half Wave—Gas	6.3	0.3	Htr	7BA	1 3/4	0.400	850	275 ma.	45 ma.	25	Flex. Leads	**CK5995**
CK6110 [7]	Full Wave—High Vacuum	6.3	0.15	Htr	8CH	1 3/8	0.400	460	26.5 ma.	8 ma.		Flex. Leads	**CK6110** [7]
CK6174	Half Wave—Gas			Cold	7CB	2 1/4	3/8	2,800	30 ma.	3 ma.	100	7-pin Min.	**CK6174**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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Note: May be used as ionic heated cathode rectifier under some conditions.

RAYTHEON VOLTAGE REGULATOR-VOLTAGE REFERENCE TUBES RAYTHEON

TYPE	TYPICAL APPLICATION	BASING	MAX. DIMENSIONS Inches		MIN. STARTING VOLTAGE SUPPLY	OPERATING VOLTAGE Approx.	MIN. OPERATING CURRENT ma.	MAX. OPERATING CURRENT ma.	MAX. REGULATION Volts	TYPE
			Height	Diam.						
0A2	Voltage Regulator	7G	2 5/8	3/4	185	150	5	30	6	**0A2**
0A3/VR75	Voltage Regulator	9T	4 1/8	1 9/16	105	75	5	40	5	**0A3/VR75**
0B2	Voltage Regulator	7G	2 5/8	3/4	133	108	5	30	4	**0B2**
0B3/VR90	Voltage Regulator	9T	4 1/8	1 9/16	125	90	10	30	8	**0B3/VR90**
0C3/VR105	Voltage Regulator	9T	4 1/8	1 9/16	133	105	5	40	4	**0C3/VR105**
0D3/VR150	Voltage Regulator	9T	4 1/8	1 9/16	185	150	5	40	5.5	**0D3/VR150**
1B46	Voltage Regulator	9Z	1.66	0.63	250	82	1	2	3	**1B46**
1B47	Voltage Regulator	9Z	1.66	0.63	250	82	1	2	3	**1B47**
CK1017	Voltage Regulator	7H	2 11/16	3/4	800	700	0.005	0.055	20	**CK1017**
CK1022	Voltage Regulator	7H	2 11/16	3/4	1100	1000	0.005	0.055	20	**CK1022**
CK1037	Voltage Regulator	3A	1.75	0.400	730	700	0.005	0.100	15	**CK1037**
CK1038	Voltage Regulator	3A	1.75	0.400	930	900	0.005	0.055	15	**CK1038**
CK1039	Voltage Regulator	3A	1.75	0.400	1230	1200	0.005	0.100	25	**CK1039**
CK5651	Voltage Reference	7G	2 1/8	3/4	115	82–92	1.5	3.5	3	**CK5651**
CK5783	Voltage Reference	3A	1 5/8	0.400	115	82–92	1.5	3.5	3	**CK5783**
CK5783WA	Voltage Reference	3A	1 5/8	0.400	115	82–92	1.5	3.5	3	**CK5783WA**
CK5787	Voltage Regulator	3A	2 1/16	0.400	145	100	5	30	6	**CK5787**
CK5787WA	Voltage Regulator	3A	2 1/16	0.400	145	100	1	25	4	**CK5787WA**
CK5962	Voltage Regulator	8W	2 11/16	3/4	730	700	0.002	0.055	15	**CK5962**
CK6073	Voltage Regulator	7G	2 5/8	3/4	185	150	5	30	6	**CK6073**
CK6074	Voltage Regulator	7G	2 5/8	3/4	133	108	5	30	4	**CK6074**
CK6213	Voltage Reference	3A	1 5/8	0.400	200	127–133	1	2.5	2	**CK6213**

THYRATRON TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BASING	MAX. DIMENSIONS		MAX. PEAK INVERSE ANODE VOLTS	PEAK STARTER-ANODE BREAKDOWN VOLTS	MAX. PEAK CATHODE CURRENT	MAX. AVERAGE CATHODE CURRENT	TYPE
			Volts	Amps	Type		Height	Diam.					
0A4G	Gas Triode	Relay Service			Cold	8CT	4 1/8	1 9/16	225	+75 to +90	100 ma.	25 ma.	**0A4G**
2C33/RX233A	Gas Triode	Trigger Service	2.5	2.5	Fil.	8A	4 5/16	1 17/64	1500		1.5 amp.	25 ma.	**2C33/RX233A**
4C35	Gas Triode	Pulsing or Switching Service	6.3	6.1	Fil.		7	2 9/16	2500		90 amp.	100 ma.	**4C35**
RK61	Gas Triode	Model Aircraft Control	1.4	0.05	Fil.	4E	1 13/16	0.55	Special Circuit—Write for Data				**RK61**
RX884	Gas Triode	Sweep Oscillator	6.3	0.6	Htr.	8H	4 1/8	1 9/16	350		300 ma.	75 ma.	**RX884**
RX885	Gas Triode	Sweep Oscillator	2.5	1.5	Htr.	8F	4 3/16	1 9/16	350		300 ma.	75 ma.	**RX885**
CK1089	Gas Tetrode	Relay or Indicator Service			Cold	4F	2	3/4		75	20 ma.	15 ma.	**CK1089**
2050	Gas Tetrode	Relay Service	6.3	0.6	Htr.	8J	4 1/8	1 9/16	1300		1 amp.	100 ma.	**2050**
2051	Gas Tetrode	Relay Service	6.3	0.6	Htr.	8J	4 1/8	1 9/16	700		375 ma.	75 ma.	**2051**

See page 3 for reference notes — See poges 18 and 19 for basing diagrams and terminal connections.
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SPECIAL PURPOSE TUBES

TYPE	CONSTRUCTION	TYPICAL APPLICATION	HTR or FILAMENT			BASING	MAX. DIMENSIONS Inches		PLATE VOLTS	GRID 1 VOLTS	GRID 2 VOLTS	GRID 3 VOLTS	PLATE CURR. ma.	GRID 2 CURR. ma.	AMP. FACT.	PLATE RESIST. meg.	MUT. COND. μmhos	OUTPUT watts	LOAD RESIST. ohms	TYPE
			Volts	Amps.	Type		Height	Diam.												
1AE4	Pentode	R-F Amplifier	1.25	0.1	Fil	8YA	2 1/8	3/4	90	0	90		3.5	1.2		0.5	1550			1AE4
2C50	Dble. Triode	Power Amplifier	12.6	0.3	Htr	8BD	3 3/16	1 5/16	300	−24			12.5		9.5		1750	(Each Unit)		2C50
2C52	Dble. Triode	Voltage Amp.	12.6	0.3	Htr	8BD	3 3/16	1 5/16	250	−2			1.3		90		1900	(Each Unit)		2C52
3A4	Pentode	RF-AF Pwr. Amp.	2.8 1.4	0.4 0.2	Fil	7BX	2 1/8	3/4	150	−8.4	90		13.3	2.2		0.1	1900	0.7	8000	3A4
3A5	Dble. Triode	AF-RF Amp. Osc.	2.8 1.4	0.11 0.22	Fil	7BW	2 1/8	3/4	90	−2.5			3.7		15		1800			3A5
3B4	Beam Pentode	RF Amp. Osc.	2.5	0.16	Fil	7BU	2 1/8	3/4	150	−38	135		25	6.2	(IC_1=55 ma)			1.25 (at 100 Mc)		3B4
6AJ5	Pentode	RF-AF Amplifier	6.3	0.175	Htr	7BD	1 3/4	3/4	28	Rk200	28		3	1.2		0.090	2750			6AJ5
6AN5	Pentode	RF-AF Pwr. Amp.	6.3	0.45	Htr	7BD	2 1/8	3/4	120	Rk120	120		35	12		0.0125	8000	1.3	2500	6AN5
6AR6	Pentode	Power Amp.	6.3	1.2	Htr	9Y	3 15/32	1 7/16	250	−22.5	250		75	5.0		0.021	5400			6AR6
6AS6	Pentode	Mixer-Gated Amp.	6.3	0.175	Htr	9P	1 3/4	3/4	120	−2	120	0	5.2	3.5			3200			6AS6
6AS7G	Dble. Triode	DC Amplifier	6.3	2.5	Htr	8BD	5 5/16	2 1/16	135	Rk250			125		2.1		7500			6AS7G
6J4	Triode	UHF Amplifier	6.3	0.4	Htr	7BT	2 1/8	3/4	100	Rk100			10		55		11000			6J4
6N4	Triode	HF Oscillator	6.3	0.2	Htr	7CA	1 3/4	3/4	180	−3.5			12		32		6000			6N4
7AK7	Pentode	Mixer-Gated Amp.	6.3	0.8	Htr	8V	3 5/32	1 3/16	150	0	90	0	40	21		0.0115	6500			7AK7
CK108	Pentode	R-F Amplifier	6.3	0.3	Htr	8G	4 17/32	1 9/16	250	−3	100		2.3	0.5		1.5	1250			CK108
CK118	Thermal Relay	Overload Protect.				8S	2 7/8	1.275	Operating volt. = 6.9 ±0.2v; Release volt = 2.0 to 3.5 volts. Write for data											CK118
310A	Pentode	RF-AF Amplifier	10.0	0.315	Htr	7K	4 9/32	1 9/16	135	−3	135		5.5			0.75	1800			310A
954	Pentode	UHF Amplifier	6.3	0.15	Htr	8B	1 7/8	1 5/32	250	−3	100		2	0.7		>1	1400			954
955	Triode	UHF Oscillator	6.3	0.15	Htr	8D	1 3/8	1 5/32	250	−7			6.3		25		2200			955
956	Pentode	UHF Amplifier	6.3	0.15	Htr	8B	1 7/8	1 5/32	250	−3	100		6.7	2.7		0.7	1800			956
957	Triode	UHF Oscillator	1.25	0.05	Fil	8C	1 3/8	1 5/32	135	−5			2		13.5		650			957
CK1030	Spark Gap	Overvolt.Protect.				None	1 5/16	5/8	Breakdown Voltage = 1500 to 2000 volts; Min. External Imped. = 5000 ohms.											CK1030
CK1031	Spark Gap	Overvolt.Protect.				None	1 5/16	5/8	Breakdown Voltage = 3000 to 3500 volts; Min. External Imped. = 10,000 ohms.											CK1031
CK1033	Spark Gap	Overvolt. Protect.				None	1 5/16	5/8	Breakdown Voltage = 4200 to 4600 volts; Min. External Imped. = 10,000 ohms.											CK1033
CK5608	Dble. Triode	Control Equip.	2.5	2	Htr	7J	4 11/16	1 13/16	300	−6			6		32		2450			CK5608
CK5608A	Dble. Triode	Control Equip.	2.5	2	Htr	8EG	4 11/16	1 13/16	Same characteristics as CK5608. Heaters are connected in series internally											CK5608A
CK5656	Dble. Tetrode	R-F Power Amp.	6.3	0.4	Htr	9K	2 3/16	7/8	150	−2	120		15	2.7		0.06	5800	(Each Unit)		CK5656
CK5694	Dble. Triode	Power Amplifier	6.3	0.8	Htr	8CS	4 5/8	1 13/16	294	−6			7		35		3200	(Each Unit)		CK5694
CK5910	Pentode	Radiosonde	1.4	0.05	Fil	8YA	2 1/8	3/4	90	0	90		1.6	0.45		1.5	900			CK5910
9001	Pentode	UHF Amplifier	6.3	0.15	Htr	7BD	1 13/16	3/4	250	−3	100		2	0.7		>1	1400			9001
9002	Triode	UHF Oscillator	6.3	0.15	Htr	7BS	1 13/16	3/4	250	−7			6.3		25		2200			9002
9003	Pentode	UHF Amplifier	6.3	0.15	Htr	7BD	1 13/16	3/4	250	−3	100		6.7	2.7		0.7	1800			9003
9005	Diode	Detector	3.6	0.165	Htr	8DA	1 3/8	5/8	Max. Plate Voltage (RMS) = 117v; Max. Io = 1.0 ma.											9005
9006	Dble. Diode	Detector	6.3	0.15	Htr	7BV	1 13/16	3/4	Max. Peak Inverse = 750 v; Max. Io = 5 ma.											9006

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
This data is compiled as a Raytheon service to the Field, it is not intended to indicate type availability.

TRANSMITTING TUBES

RAYTHEON

TYPE	CONSTRUCTION	TYPICAL APPLICATION	FILAMENT			MAXIMUM VOLTAGES				MAX. CURRENT MA.			POWER—WATTS			CAPACITANCES			BASE	TYPE
			Volts	Amps	Type	Plate	Grid 1	Grid 2	Grid 3	Plate	Grid 1	Grid 2	Dissi-pation	Drive	Output	G-P	Input	Output		
2C34/ RK34	Dual Triode	H-F Oscillator-Amp.	6.3	0.8	Heater	300	−36			80*	20*		10*	1.8*	16*	2.4	3.4	0.5	7-Pin	2C34/ RK34
2E24	Beam Pentode	VHF Oscil.-Amp.	6.0	0.65	Oxide	600	−175	200		85	3.5	12.5	13.5	2.0	16.5	0.11	8.5	6.5	Octal	2E24
2E26	Beam Pentode	VHF Oscil.-Amp.	6.0	0.8	Cathode	600	−175	200		75	3.5	12.5	13.5	0.17	27	0.20	13	7	Octal	2E26
2E30	Beam Pentode	RF-AF Amplifier	6.0	0.65	Fil.	250	−150	250	0	60	3		10	0.2	7.5	0.18	9.6	14	7-Pin Min.	2E30
RK4D22	Beam Tetrode	R-F Oscillator-Amp.	25.2 12.6	0.8 1.6	Cathode	750	−200	350		300	15	35	50	1.5	135	0.27	28.0	13.0	Spec. 7-Pin	RK4D22
RK4D32	Beam Tetrode	R-F Oscillator-Amp.	6.3	3.75	Cathode	750	−200	350		300	15	35	50	1.5	135	0.27	28.0	13.0	Spec. 7-Pin	RK4D32
5D23/ RK65	R-F Tetrode	R-F Amplifier	5.0	14.0	Thoriated	3000	−250	500		250	40	80	215	15.0	565	0.42	10.0	5.0	Jmb. 4-Pin	5D23/ RK65
RK6D21	Tetrode	Pulse Amp.	8.2	20	Thoriated	40Kv		2500					400						Giant 5-Pin	RK6D21
RK6D22	Tetrode	R-F, A-F Amp.	5.0	28.5	Thoriated	3500	−250	500		500	100	165	450	22.0	1000	0.5	22.0	10.0	Jmb. 4-Pin	RK6D22
RK25	R-F Pentode	Suppressor Mod.	6.3	0.9	Heater	500	−90	200	+45	55	8	38	10	0.5	22	0.2	10.0	10.0	7-Pin	RK25
RK38	Triode	R-F, A-F Amp.	5.0	8.0	Thoriated	3000	−200			165	40		100	10.0	225	4.3	4.6	0.9	Med. 5-Pin	RK38
RK59	Dual Triode	Quick Heat'g	6.3	1.0	Oxide	500	−60			90*	14*		15*	1.3*	32*	9.0	5.0	1.0	4-Pin	RK59
RK75	Pentode	R-F Oscil.-Amp.	5.5	1.0	Oxide	500	−100	250		60	7	25	15		15	0.55	15	12	Med. 5-Pin	RK75
RK715C	Tetrode	Pulse Modulator	27.0	2.15	Cathode	18000	−1000	1350		15 amp.			60			1.1	38	7	Spec. 4-Pin	RK715C
RK807	Beam Tetrode	R-F Oscil.-Amp.	6.3	0.9	Heater	600	−200	300		100	5	12	30	0.2	50	0.2	11.0	7.0	Med. 5-Pin	RK807
RK811A	Triode	RF-AF Amplifier	6.3	4	Fil.	1500	−200			175	50		65	7.1	200	5.6	5.9	0.7	4-Pin	RK811A
RK812A	Triode	RF-AF Amplifier	6.3	4	Fil.	1500	−200			175	35		65	6.5	190	5.5	5.4	0.77	4-Pin	RK812A
RK813	Beam Tetrode	R-F Oscil.-Amp.	10.0	5	Thoriated	2250	−300	400		225	30	55	125	4.0	375	0.25	16.3	14	Giant 7-Pin	RK813
RK814	Beam Tetrode	R-F Oscil.-Amp.	10.0	3.25	Thoriated	1250	−300	300		150	15	34	65	1.5	130	0.12	13.0	10.0	Med. 5-Pin	RK814
RK829B	Dual Beam Tet.	R-F Oscil.-Amp.	12.6	1.125	Cathode	750	−175	225		240*	15*	30*	40*	0.8*	87*	0.12	14.5	7.0	Med. 7-Pin	RK829B
RK832A	Dual Beom Tet.	R-F Oscil.-Amp.	6.3	0.8	Cathode	750	−100	250		90	6	20	15	0.19	26	0.05	7.5	3.8	Spec. 7-Pin	RK832A
RK837	R-F Pentode	R-F Oscil.-Amp.	12.6	0.7	Heater	500	−200	200	+40	80	8	40	12	0.4	22	0.2	16.0	10.0	Med. 7-Pin	RK837
RK1625	Beam Tetrode	R-F Oscil.-Amp.	12.6	0.45	Cathode	600	−200	300		100	5	12	30	0.2	40	0.2	11	7	Med. 7-Pin	RK1625
CK5763	Beam Pentode	R-F Oscil.-Amp.	6.0	0.75	Heater	300	−125	250	0	50	5	15	12	0.35	8	0.3	9.5	4.5	9-Pin Min.	CK5763
RK6146	Beam Pentode	RF-AF Amp.	6.3	1.25	Heater	750	−150	250		150	4		25	0.3	69	0.22	13.5	9	Octal	RK6146

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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*Indicates value for both sections combined.

REFLEX KLYSTRONS

TYPE	MAXIMUM FREQUENCY RANGE MEGACYCLES	FREQUENCY MEGACYCLES	TYPE OF TUNING	TYPICAL OPERATION				FOCUS or CONTROL POTENTIAL D.C. Volts	ELECTRONIC TUNING E.REF. / P.O. / 2 Megacycles	MAXIMUM THERMAL DRIFT Mc/c°	FILAMENT CURRENT AT 6.3 V. AMPERES	TYPE OF CAVITY	TYPE
				POWER OUTPUT MILLIWATTS		REFLECTOR POTENTIAL D.C. Volts	BEAM VOLT. D.C. Volts						
				Ave.	Min.								
2K22	4240–4910	4775	Mech.-Cap.	115	75	−120 to −180	300		30 min.	−0.1 to +0.5	0.440	Self Cont.	**2K22**
2K25	8500–9660	9370	Mech.-Cap.	32	20	−128 to −123	300		55 ave.	0 to −0.2	0.440	Self Cont.	**2K25**
2K26	6250–7060	6660	Mech.-Cap.	100	80	−70 to −115	300		32 min.	0 to −0.2	0.440	Self Cont.	**2K26**
2K28	1200–3750	3315–3680	Mech.-Ind.	140	80	−140 to −300	300	300	20 min.	±.15	0.650	External	**2K28**
2K29	3400–3960	3560	Mech.-Cap.	106	85	−75 to −180	300		28 min.	−0.1 to +.05	0.440	Self-Cont.	**2K29**
2K33	22,000–25,000	22,000–25,000	Mech.-Cap.	40	10	−80 to −220	1800	−20 to −100	40 ave.	0 to −1.0	0.650	Self. Cont.	**2K33**
2K45	8500–9660	9660	Therm.-Cap.	32	20	−95 to −145	300		70 ave.		0.762	Self Cont.	**2K45**
2K48	4000–11,000	6900–10,850	Mech.-Ind.		25	−175 to −300	1250				0.515	External	**2K48**
2K56	3840–4460	4150	Mech.-Cap.	100	80	−85 to −150	300		30 min.	−0.1 to +.05	0.440	Self Cont.	**2K56**
6BL6	1600–5500	2110–4355	Mech.-Ind.	50	25	−30 to −330	300	0			0.675	External	**6BL6**
QK140		29,700–33,520	Mech.-Cap.	20	10	−50 to −200	2250	−20 to −250	45 ave.		0.650	Self Cont.	**QK140**
QK226		37,100–42,600	Mech.-Cap.	5		−50 to −200	2500	−20 to −200			0.650	Self Cont.	**QK226**
QK227		41,700–50,000	Mech.-Cap.	5		−50 to −200	3000	−20 to −200			0.650	Self Cont.	**QK227**
QK289		27,270–30,000	Mech.-Cap.	20	10	−50 to −200	2250	−20 to −250	45 ave.		0.650	Self Cont.	**QK289**
QK290		29,700–33,520	Mech.-Cap.	20	10	−50 to −200	2250	−20 to −250	45 ave.		0.650	Self Cont.	**QK290**
QK291		33,520–36,250	Mech.-Cap.	18	5	−50 to −200	2250	−20 to −250	45 ave.		0.650	Self Cont.	**QK291**
QK292		35,100–39,700	Mech.-Cap.	10	5	−50 to −200	2500	−20 to −200	45 ave.		0.650	Self Cont.	**QK292**
QK293		37,100–42,600	Mech.-Cap.	5		−50 to −200	2500	−20 to −200			0.650	Self Cont.	**QK293**
QK294		41,700–50,000	Mech.-Cap.	5		−50 to −200	3000	−20 to −200			0.650	Self Cont.	**QK294**
QK295	Two tubes necessary to cover 50,000 to 60,000 Mc.		Mech. Cap.	To be specified		−50 to −200	3500	−20 to −200			0.650	Self Cont.	**QK295**
QK306	18,000–22,000	18,000–22,000	Mech.-Cap.	40	10	−80 to −220	1800	−20 to −100	40 ave.	0 to −1.0	0.650	Self Cont.	**QK306**
RK726C	2700–2960	2800	Mech.-Cap.	100	85	−75 to −135	300		25 min.	−0.1 to +.05	0.440	Self Cont.	**RK726C**
RK5721	3500–12,000	4290–8340	Mech.-Ind.	125	100	−60 to −625	1000	+4 to +18	12 min.	±.025	0.580	External	**RK5721**
RK5976	6250–7460	6750	Mech.-Cap.	110	85	−78 to −158	300		32 min.	0 to −0.2	0.440	Self Cont.	**RK5976**
RK5981	1245–1460	1245–1460	Mech.-Cap.	100	40	−30 to −330	225		2.5 min.	±0.05	0.455	Self Cont.	**RK5981**
RK6043	2950–3275	3200	Mech.-Ind.	175	150	−100 to −175	300	300	20	±0.15	0.650	Self Cont.	**RK6043**
RK6115	5100–5900	5500	Mech.-Cap.	100	70	−115 to −175	300		30 min.	−0.1 to +.05	0.440	Self Cont.	**RK6115**

TR TUBES

TYPE	DESCRIPTION	CAVITY	FREQUENCY RANGE Megacycles	IGNITOR CURRENT μadc	MAX. PEAK DISSIPATION Watts	MAX. AVE. DISSIPATION Watts	RECOVERY TIME	TYPE
721B	Tunable	External	2800–3330	60–110	100	1	7μ sec. max.	**721B**

See page 3 for reference notes — See pages 18 and 19 for basing diagrams and terminal connections.
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CAVITY MAGNETRON TUBES

TYPE	HEATER		CLASS	BAND or RANGE Mc.	MAXIMUM RATINGS						TYPICAL OPERATION		P.P.S.	Pk.P.O. Kw	TYPE
	Volts	Amps			Anode Kv	Anode Amps	Duty Cycle	Input Watts	Anode Kv	Anode Amps	Field Gauss	Pulse μsec			
RK2J23	6.3	1.5	Fixed Frequency—Pulsed	3071–3100	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J23**
RK2J24	6.3	1.5	Fixed Frequency—Pulsed	3047–3071	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J24**
RK2J25	6.3	1.5	Fixed Frequency—Pulsed	3019–3047	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J25**
RK2J26	6.3	1.5	Fixed Frequency—Pulsed	2992–3019	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J26**
RK2J27	6.3	1.5	Fixed Frequency—Pulsed	2965–2992	22.0	30.0	.012	600	20.0	30.0	2400	1.0	1000	275	**RK2J27**
RK2J28	6.3	1.5	Fixed Frequency—Pulsed	2939–2965	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J28**
RK2J29	6.3	1.5	Fixed Frequency—Pulsed	2914–2939	22.0	30.0	.002	600	20.0	30.0	2400	1.0	1000	275	**RK2J29**
RK2J30	6.3	1.5	Fixed Frequency—Pulsed	2860–2900	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	**RK2J30**
RK2J31	6.3	1.5	Fixed Frequency—Pulsed	2820–2860	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	**RK2J31**
RK2J32	6.3	1.5	Fixed Frequency—Pulsed	2780–2820	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	**RK2J32**
RK2J33	6.3	1.5	Fixed Frequency—Pulsed	2740–2780	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	**RK2J33**
RK2J34	6.3	1.5	Fixed Frequency—Pulsed	2700–2740	22.0	30.0	.002	600	20.0	30.0	1900	1.0	1000	285	**RK2J34**
RK2J42	6.3	0.48	Fixed Frequency—Pulsed	9345–9405	6	5.5	.0025	82.5	5.5	4.5	Pkg.	1	2000	7	**RK2J42**
RK2J51	6.3	1.1	Tunable—Pulsed	8500–9600	16	16	.0012	230	15	14	Pkg.	1	1000	45	**RK2J51**
RK2J55	6.3	1.0	Fixed Frequency—Pulsed	9345–9405	16.0	16.0	.001	180	12.8	12.0	Pkg.	1.0	1000	50.0	**RK2J55**
RK2J56	6.3	1.0	Fixed Frequency—Pulsed	9215–9275	16.0	16.0	.001	180	12.8	12.0	Pkg.	1.0	1000	50.0	**RK2J56**
RK2J61A	6.3	1.5	Tunable—Pulsed	3000–3100	15.0	15.0	.002	250	10.7	12.5	1300	1.0	2000	35.0	**RK2J61A**
RK2J62A	6.3	1.5	Tunable—Pulsed	2914–3010	15.0	15.0	.002	250	10.2	12.5	1300	1.0	2000	35.0	**RK2J62A**
RK2J66	6.3	1.5	Tunable—Pulsed	2845–2905	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	**RK2J66**
RK2J67	6.3	1.5	Tunable—Pulsed	2795–2855	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	**RK2J67**
RK2J68	6.3	1.5	Tunable—Pulsed	2745–2805	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	**RK2J68**
RK2J69	6.3	1.5	Tunable—Pulsed	2695–2755	20.0	25.0	.001	400	18.0	25.0	1700	1.0	1000	150	**RK2J69**
RK2J70	6.3	1.25	Fixed Frequency—Pulsed	3030–3110	7.5	15.0	.002	200	7.0	8.0	Pkg.	0.5	1000	20	**RK2J70**
RK2J71	6.3	1.25	Fixed Frequency—Pulsed	3190–3201	5.5	8.0	.002	100	5.0	5.0	Pkg.	1.0	2000	6	**RK2J71**
RK4J31	16.0	3.1	Fixed Frequency—Pulsed	2860–2900	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J31**
RK4J32	16.0	3.1	Fixed Frequency—Pulsed	2820–2860	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J32**
RK4J3	16.0	3.1	Fixed Frequency—Pulsed	2780–2820	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J33**
RK4J34	16.0	3.1	Fixed Frequency—Pulsed	2740–2780	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J34**
RK4J35	16.0	3.1	Fixed Frequency—Pulsed	2700–2740	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J35**
RK4J36	16.0	3.1	Fixed Frequency—Pulsed	3650–3700	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J36**
RK4J37	16.0	3.1	Fixed Frequency—Pulsed	3600–3650	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J37**
RK4J38	16.0	3.1	Fixed Frequency—Pulsed	3550–3600	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J38**
RK4J39	16.0	3.1	Fixed Frequency—Pulsed	3500–3550	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J39**
RK4J40	16.0	3.1	Fixed Frequency—Pulsed	3450–3500	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J40**
RK4J41	16.0	3.1	Fixed Frequency—Pulsed	3400–3450	30.0	70.0	.001	1200	28.0	70.0	2500	1.0	400	750	**RK4J41**
RK4J43	16.0	3.1	Fixed Frequency—Pulsed	2992–3019	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J43**
RK4J44	16.0	3.1	Fixed Frequency—Pulsed	2965–2992	30.0	70.0	.001	1200	28.0	70.0	2700	1.0	400	900	**RK4J44**
RK4J54	12.6	3.75	Fixed Frequency—Pulsed	6875–6775	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J54**
RK4J55	12.6	3.75	Fixed Frequency—Pulsed	6775–6675	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J55**
RK4J56	12.6	3.75	Fixed Frequency—Pulsed	6675–6575	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J56**

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RAYTHEON

CAVITY MAGNETRON TUBES

TYPE	HEATER		CLASS	BAND or RANGE Mc.	MAXIMUM RATINGS						TYPICAL OPERATION		P.P.S.	Pk.P.O. Kw	TYPE
	Volts	Amps			Anode Kv	Anode Amps	Duty Cycle	Input Watts	Anode Kv	Anode Amps	Field Gauss	Pulse μsec			
RK4J57	12.6	3.75	Fixed Frequency—Pulsed	6575–6475	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J57**
RK4J58	12.6	3.75	Fixed Frequency—Pulsed	6475–6375	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J58**
RK4J59	12.6	3.75	Fixed Frequency—Pulsed	6375–6275	25.0	35.0	.001	650	17.5	30.0	Pkg.	1.0	1000	200	**RK4J59**
RK5J26	23.5	2.2	Tunable—Pulsed	1220–1350	31.0	60.0	.002	1800	27.5	46	1400	4	225	400	**RK5J26**
QK174C	4.0	3.1	Tunable—CW-FM	1990–2110	2.2	0.18	—	198	1.85	0.15	Pkg.	—	—	0.07	**QK174C**
QK312	8.5	32	Fixed Freq.—CW	2425–2475	7.0	2.5	CW	3600	5.1	0.58	Pkg.	CW	CW	1.5	**QK312**
RK730A	6.3	1.1	Fixed Frequency—Pulsed	9345–9405	16	16	.001	180	13	12	5400	1	1000	40	**RK730A**
RK5586	16.0	3.1	Tunable—Pulsed	2700–2900	30.0	70.0	.001	1200	28.0	70.0	2700	1	400	900	**RK5586**
RK5609	6.3	3.8	Fixed Freq.—CW	2425–2475	1.7	0.15	CW	200	1.5	0.125	Pkg.			0.125	**RK5609**
RK5657	16	3.4	Tunable—Pulsed	2900–3100	32.5	70	.001	1300	32.5	70	2700	1	500	800	**RK5657**
RK5982	6.3	3.2	Fixed Frequency—Pulsed	9335–9415	15.5	14.5	.001	225	15.5	13.4	Pkg.	4.5	200	75.5	**RK5982**

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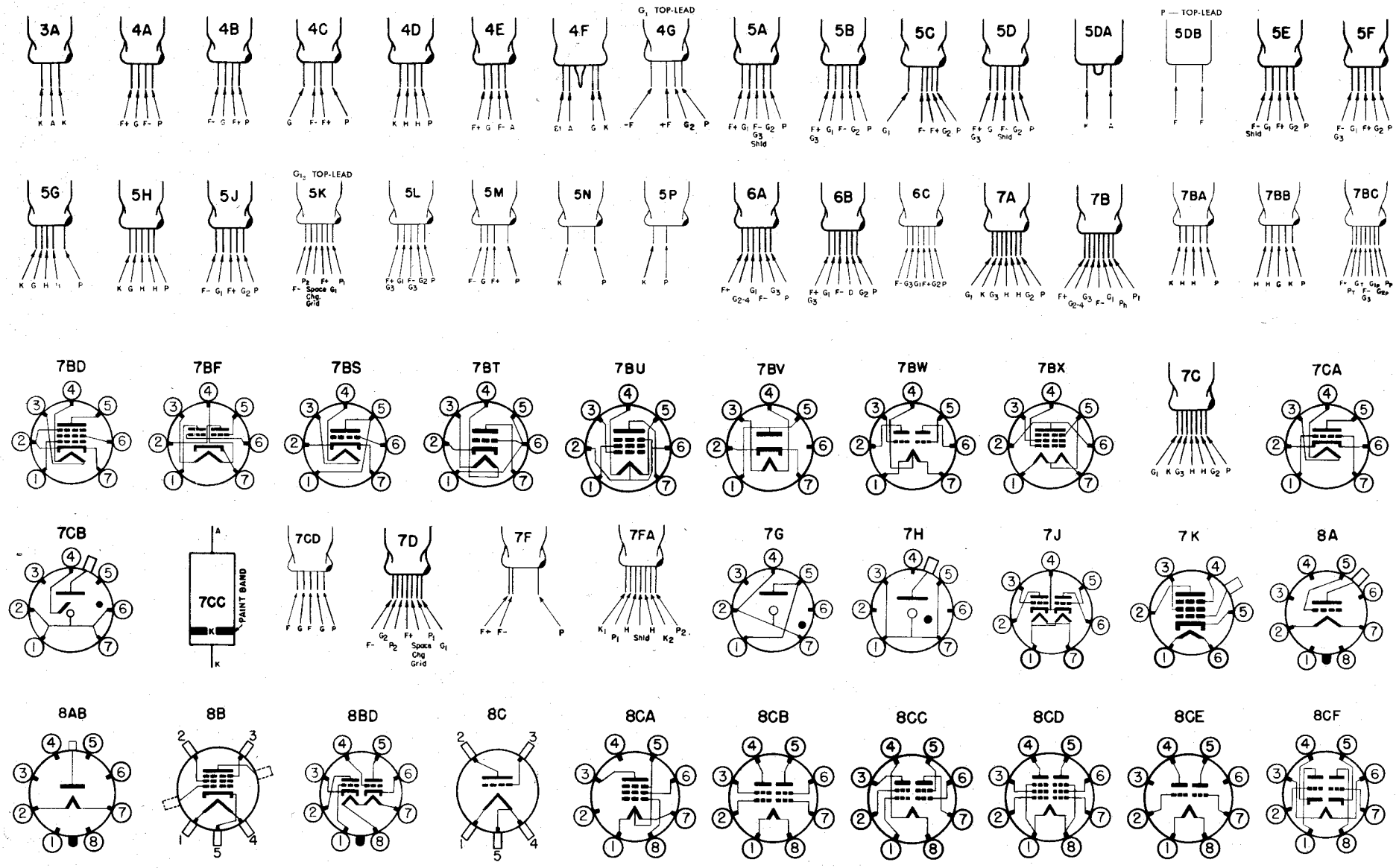
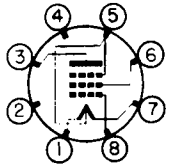
BASING DIAGRAMS

Subminiature types viewed with Red Dot on right hand side; other types viewed from bottom of base.



Subminiature types viewed with Red Dot on right hond side; other types viewed from bottom of bose.

8CG



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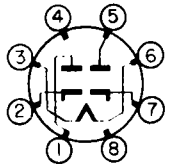

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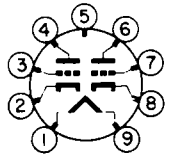

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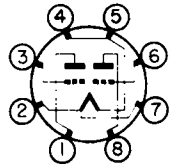

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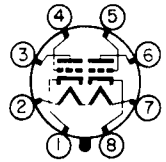

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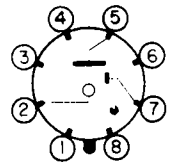

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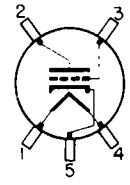

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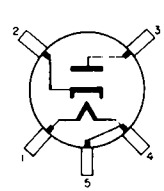

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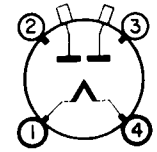

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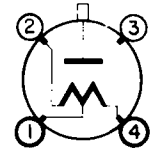

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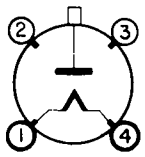

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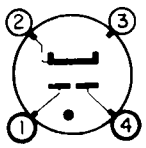

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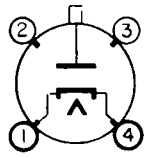

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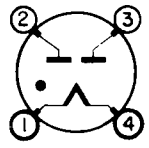

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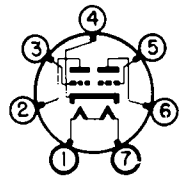

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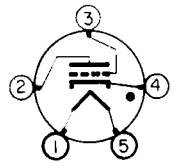

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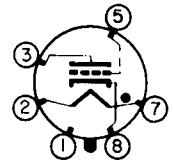

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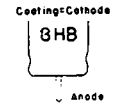

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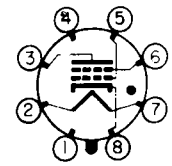

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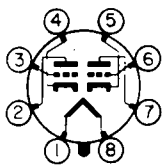

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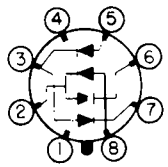

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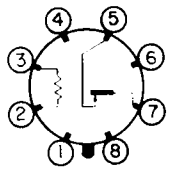

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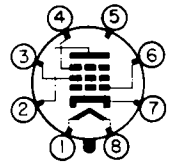

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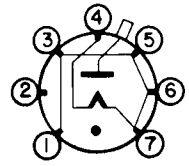

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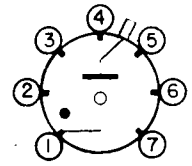

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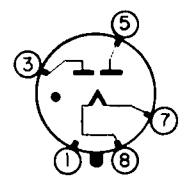

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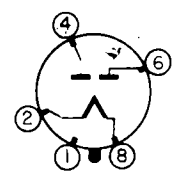

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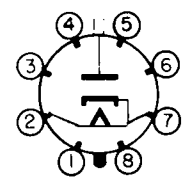

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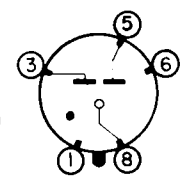

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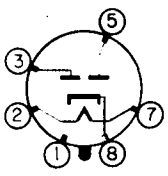

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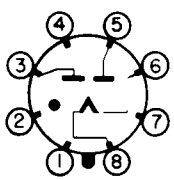

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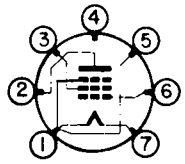

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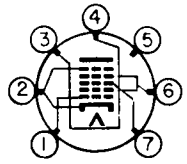

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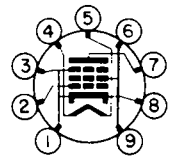

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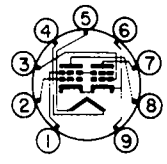

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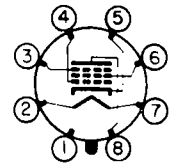

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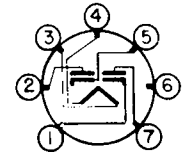

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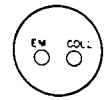

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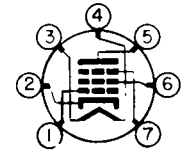

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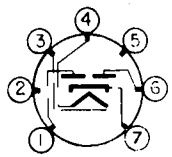

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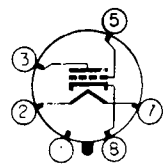

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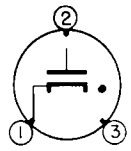

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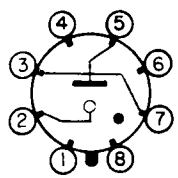

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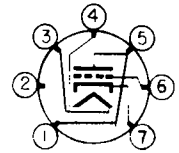

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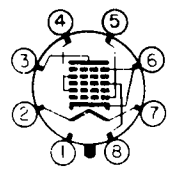

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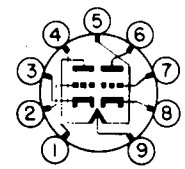

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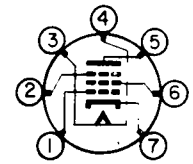

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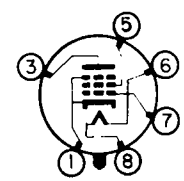
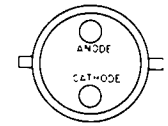
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