V.H.F. DOUBLE TETRODE

YL1240

TENTATIVE DATA

QUICK REFERENCE DATA

Single ended double tetrode intended for mobile service as Class 'C' amplifier, oscillator or frequency multiplier.

	Frequency Trebler		Class 'C' Telegraphy or F.M. Telephony		
	C.C.S.	I.C.A.S.	C.C.S.	I.C.A.S.	
f	-	174/58	200	200	Mc/s
P_{out}	-	12	22	33	W
f max.	200	200	200	200	Mc/s
V_a max.	400	450	400	450	V
p_a max.	2 x 7.5	2 x 10	2 x 7.5	2 x 10	W

To be read in conjunction with
GENERAL OPERATIONAL RECOMMENDATIONS - TRANSMITTING VALVES

CLASS 'C' TELEGRAPHY OR F.M. TELEPHONY

Maximum operating conditions

	C.C.S.	I.C.A.S.		
f	200	200	200	Mc/s
P_{out}	22	31	33	W
P_{load}	20	28	30	W
η_a	64	70	67	%
V_a	400	400	450	V
I_a	2 x 43	2 x 55	2 x 55	mA
V_{g2}	155	200	200	V
I_{g2}	2 x 1.2	2 x 2.0	2 x 2.0	mA
$-V_{g1}$	59	50	50	V
I_{g1}	2 x 1.6	2 x 1.6	2 x 1.6	mA
$P_{load(driver)}$	1.0	1.2	1.2	W
p_a	2 x 6.0	2 x 6.5	2 x 8.5	W
R_{g1-k}	19	16	16	kΩ

FREQUENCY TREBLER

Maximum operating conditions

	I.C.A.S.	
f_{out}/f_{in}	174/58	Mc/s
P_{out}	12	W
P_{load}	10	W
η_a	40	%
V_a	350	V
I_a	2 x 43	mA
V_{g2}	165	V
I_{g2}	2 x 2.5	mA
$-V_{g1}$	150	V
I_{g1}	2 x 2.2	mA
$P_{load(driver)}$	2.0	W
p_a	2 x 10	W
R_{g1-k}	34	kΩ

ABSOLUTE MAXIMUM RATINGS

	Frequency Trebler		Class 'C' Telegraphy		
	C.C.S.	I.C.A.S.	C.C.S.	I.C.A.S.	
V_a max.	400	450	400	450	V
V_{g2} max.	200	200	200	200	V
$-V_{g1}$ max.	150	150	150	150	V
I_k max.	2 x 32	2 x 47	2 x 48	2 x 59	mA
p_a max.	2 x 7.5	2 x 10	2 x 7.5	2 x 10	W
p_{g2} max.	2 x 1.0	2 x 1.0	2 x 1.0	2 x 1.0	W
I_{g1} max.	2 x 3.0	2 x 4.0	2 x 3.0	2 x 4.0	mA
p_{g1} max.	2 x 0.2	2 x 0.2	2 x 0.2	2 x 0.2	W
V_{h-k} max.	100	100	100	100	V

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CATHODE

Indirectly heated, oxide coated

	Parallel	Series	
V_h	6.75	13.5	V
I_h	0.76	0.38	A

CAPACITANCES

c_{a-g1} (each section)	max. 0.1	pF
c_{in} (each section)	6.8	pF
c_{out} (each section)	3.2	pF
c_{in} (two section in push-pull)	5.4	pF
c_{out} (two sections in push-pull)	1.7	pF

CHARACTERISTICS (measured at I_a = 30mA)

g_m	3.3	mA/V
μ_{g1-g2}	7.5	

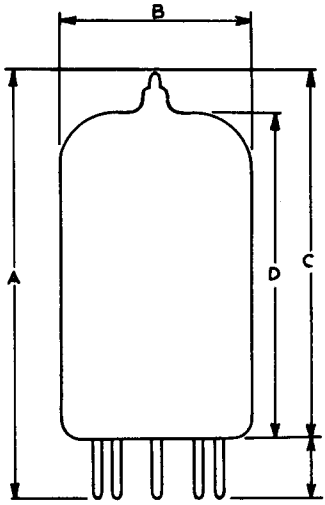
MOUNTING POSITION: Any

COOLING

Radiation and convection

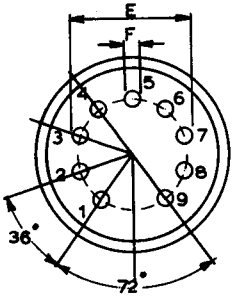
Maximum temperatures

Bulb	225	°C
Pin seal	120	°C

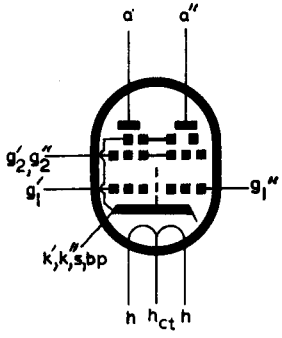


Dimensions	Inches	Millimetres	
A	3.110	79	max.
B	1.185	30.1	max.
C	2.732	69.4	max.
D	2.303±0.091	58.5±2.3	
E	0.687	17.45	
F	0.039	1.0	dia.

Inch dimensions derived from original millimetre dimensions



Pin No.	Electrode
1	g_1''
2	k'', k', s, bp
3	g_1'
4	h
5	h
6	a''
7	g_2'', g_2'
8	a'
9	h_{ct}



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