R.F. POWER DOUBLE TETRODE

A quick-heating, directly-heated double tetrode rated to dissipate 8 W at each anode and primarily intended for use in mobile equipment at frequencies up to 186 Mc/s.

QQZ04-15

This data sheet should be read in conjunction with "Operating Notes Part 1—Power Valves" included in this volume of the Handbook.

MAINTENANCE TYPE

FILAMENT

Directly heated. Oxide coated

V_f	6.3	V
I_f	0.68	A
Heating time	2	Secs

MOUNTING POSITION

Vertical, base up or down

CAPACITANCES

c_{g-f} (each section)	8.0	μμF
c_{a-f} (each section)	3.0	μμF
c_{a-g} (each section)	0.1	μμF
c_{in} (sections in push-pull)	5.5	μμF
c_{out} (sections in push-pull)	2.9	μμF

CHARACTERISTICS (each section) measured at I_a=20 mA

g_m	2.0	mA/V
μ_{g1-g2}	9	

LIMITING VALUES

	Continuous operation	Intermittent operation	
V_a max.	400	400	V
p_a max.	2×6	2×8	W
I_a max.	2×30	2×40	mA
$V_{g2(b)}$ max.	400	400	V
V_{g2} max.	250	250	V
p_{g2} max.	2×2.0	2×2.5	W
I_{g1} max.	2×5	2×5	mA
p_{g1} max.	2×0.25	2×0.25	W
I_k max.	2×40	2×50	mA
$I_{k(pk)}$ max.	2×160	2×200	mA
V_{g1} max.	−250	−250	V
R_{g1-f}	500	500	kΩ
Max. temperature of pins	80	100	°C
Max. temperature of bulb	200	250	°C
Max. frequency at full ratings	186	186	Mc/s

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OPERATING CONDITIONS AS PUSH-PULL CLASS "C" R.F. AMPLIFIER OR OSCILLATOR

	Continuous operation		Intermittent operation		
f	186	186	186	186	Mc/s
V_a	250	400	250	400	V
V_{g2}	175	200	175	200	V
V_{g1}	–70	–80	–70	–80	V
I_a	2×30	2×30	2×40	2×40	mA
I_{g2}	2×4	2×4	2×5	2×5	mA
I_{g1}	2×1.5	2×1.5	2×1.75	2×1.75	mA
$v_{in\ (pk)}$	2×60	2×65	2×60	2×65	V
p_a	2×3	2×4.75	2×4	2×6.25	W
P_{out}	9	14.5	12	19.5	W
η	60	61	60	61	%
P_{load}†	7.7	12.4	10.2	16.5	W

†These figures assume a circuit efficiency of 85%

OPERATING CONDITIONS AS PUSH-PULL CLASS "C" FREQUENCY TREBLER

	f=62–186 Mc/s		f=33–100 Mc/s		
	Intermittent operation	Continuous operation	Intermittent operation	Continuous operation	
V_a	250	250	350	350	V
V_{g2}	200	200	200	200	V
V_{g1}	–180	–180	–180	–180	V
I_a	2×40	2×30	2×30	2×24	mA
I_{g2}	6	6	6	6	mA
I_{g1}	2×1.5	2×1.5	2×1.5	2×1.5	mA
P_{out}	5	3.75	6	4.8	W
P_{load}‡	3.5	3	5	3.8	W

‡These figures assume normal circuit efficiencies

WEIGHT Value only 1½ oz. (0.042 Kg)

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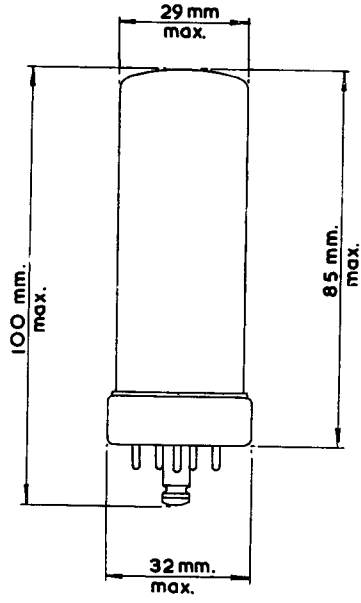

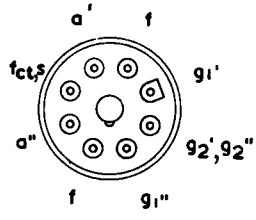

B8G BASE

170

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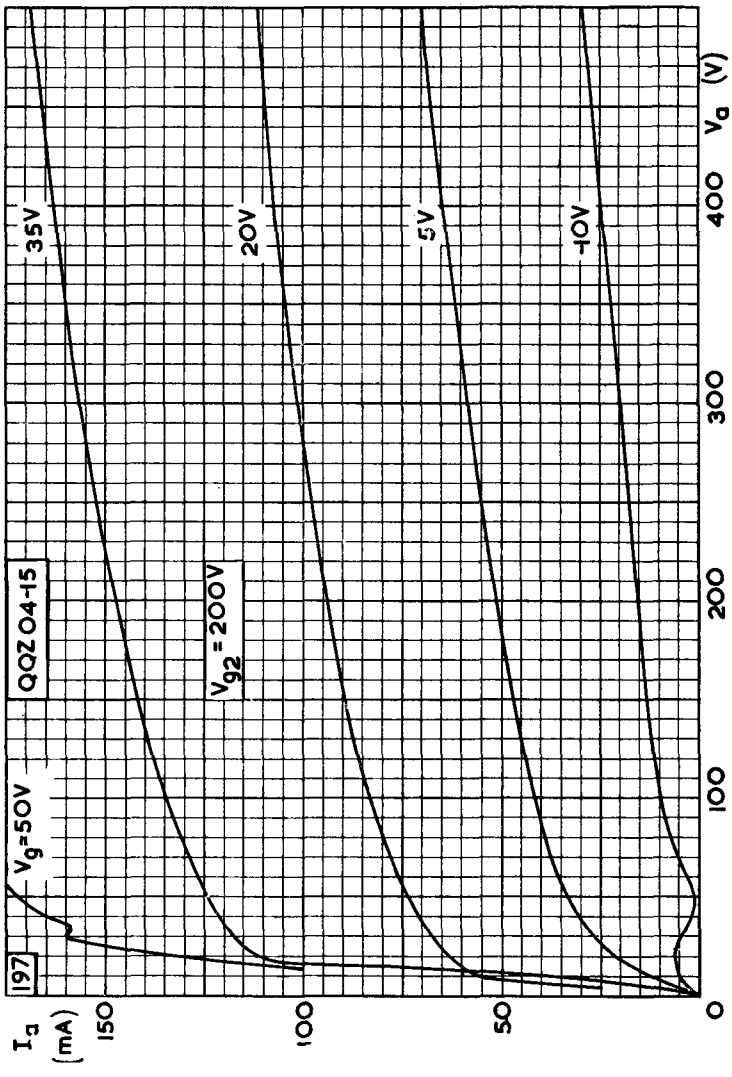

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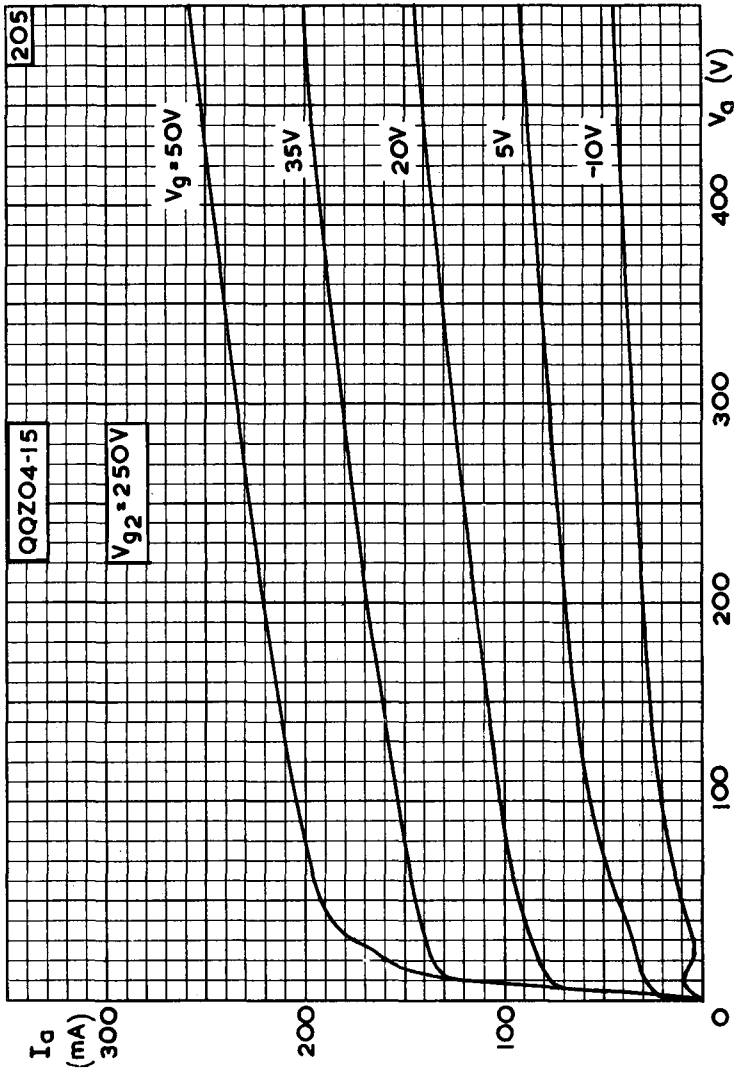
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