

TRANSMITTING VALVES AND MERCURY VAPOUR RECTIFIERS

The **QQV06-40** is a double tetrode having an oxide coated cathode. The valve is primarily intended for use as an R.F. amplifier or oscillator and has a rated anode dissipation of 20 W per anode. The limiting frequency of operation is approximately 300 Mc/s.

**QQV
06-40**

CATHODE

Indirectly heated for series or parallel operation.

	Series	Parallel	V
V_h	12.6	6.3	
I_h (approx.)	1.0	2.0	A

MOUNTING POSITION

Vertical—base up or down.

Horizontal—anode pins in horizontal plane.

CAPACITANCES

C_{g1-all} (each section)	11.0	$\mu\mu F$
C_{a-all} (each section)	3.5	$\mu\mu F$
C_{a-g1} (each section)	<0.1	$\mu\mu F$
* C_{out}	2.2	$\mu\mu F$
* C_{in}	6.6	$\mu\mu F$

*Two sections in push-pull.

CHARACTERISTICS

(each section) measured at $I_a=30$ mA

g_m	4.5	mA/V
μ_{g1-g2}	9	

LIMITING VALUES

V_a max.	600	V
p_a max.	2×20	W
V_{g2} max.	250	V
p_{g2} max.	2×3	W
I_{g1} max.	2×5	mA
p_{g1} max.	2×1	W
I_k max.	2×120	mA
I_k (pk) max.	2×480	mA
V_{g1} max.	-175	V
Max. temperature of pins	180	°C
Max. temperature of bulb	225	°C
Max. frequency at reduced ratings (V_a max.=400 V)	300	Mc/s

NOTE—When the valve is used at maximum ratings above 150 Mc/s it is necessary to direct an air flow of up to $\frac{1}{2}$ cu. ft. per min. on to the top of the bulb. An anode connector providing adequate heat transfer by radiation or conduction should also be used.



4 VALVE DATA PREFERRED TYPES

H TRANSMITTING VALVES AND MERCURY VAPOUR RECTIFIERS

QQV

06-40

(contd.)

OPERATING CLASS "C"	CONDITIONS R.F. AMPLIFIER	AS OR	PUSH-PULL OSCILLATOR	
f	60	150	300	Mc/s
V _a	600	500	400	V
V _{g2}	250	250	200	V
V _{g1}	-100	-60	-60	V
I _a	2×100	2×100	2×100	mA
I _{g2}	2×9	2×9	2×6	mA
I _{g1}	2×2	2×1	2×1.5	mA
V _{in} (pk)	2×120	2×80	2×80	V
P _a	2×17	2×17.5	2×20	W
P _{out}	85	65	40	W
η	71	65	50	%

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

f _{out}	150	150	220	Mc/s
V _a	500	400	400	V
V _{g2}	250	250	250	V
V _{g1}	-150	-150	-150	V
I _a	2×55	2×65	2×60	mA
I _{g2}	2×4.5	2×7	2×9	mA
I _{g1}	2×3	2×2.5	2×1.5	mA
V _{in} (pk)	2×200	2×200	2×200	V
P _a	2×18.5	2×18	2×18.5	W
P _{out}	18	16	11	W
η	33	31	23	%

OPERATING CONDITIONS AS CLASS "C" ANODE AND SCREEN MODULATED R.F. POWER AMPLIFIER (Two systems in parallel)

f	<60	Mc/s
V _a	500	V
V _{g2}	225	V
V _{g2} (pk)	185	V
V _{g1}	-100	V
V _{in} (pk)	150	V
I _a	2×100	mA
I _{g2}	2×13	mA
I _{g1}	2×4.5	mA
P _{g2}	2×3	W
P _a	2×16	W
P _{out}	68	W
η	68	%
P _{mod}	50	W



BASE :
B7A

DIMENSIONS :
L=122 mm
D=50 mm

