

5/27/54

325 mc IF

$$\frac{10}{5 \times 10^{-3}} = 2 \times 10^3$$

$$10^{-11} \times 2 \times 10^3 = 2 \times 10^{-8}$$

Lay out I.F.

12 stages of 6AK5's @ 5000 umho

$$f_0 = 60 \text{ mc}$$

$$\frac{\beta}{2} = \frac{1}{\gamma} = \frac{1}{.08} \text{ k} = 12.5 \text{ mc}$$

β per stage must be $\frac{25 \text{ mc}}{.76} = 32 \text{ mc}$
4 triples

Forms, From (V.T. Amp's MIT series)

$$d = \frac{\beta}{f_0} = \frac{32 \text{ mc}}{60 \text{ mc}} = .533 \quad d = .26$$

$$d = 1.25$$

$$f_1 = \frac{60}{1.25} = 48 \text{ mc} \quad \beta = .26 \times 48 = \frac{12.5}{104} \text{ mc}$$

$$R_1 = \frac{51}{2\pi \beta C} = \frac{51}{6.28 \times 10^{-8} \times 10^{-11+8}} = \frac{51}{.653 \times 10^{-2}} = \frac{1260}{.653} = 1930 \Omega$$

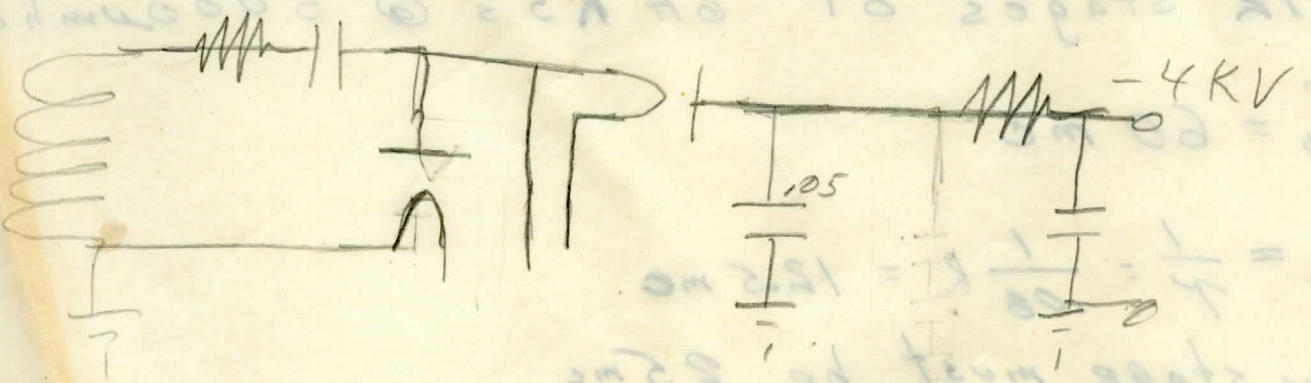
Grid cond. of 6AK5 is $\approx 2.5 \times 10^3 \Omega$

~~1800~~
1500

$$\frac{1}{1560} = \frac{1}{r} - \frac{1}{2500} \quad r = 3900 \Omega$$

better Measure G_g

.000653
.0004



4.5×10^{-4}
 20×10^{-6}
 1.5×10^{-6}

$f_0 = \frac{1}{2\pi RC} = \frac{1}{2\pi \times 1.5 \times 10^{-6} \times 10^5} = 5.3 \times 10^3$
 $Q = \frac{1}{R} \sqrt{\frac{L}{C}} = \frac{1}{10^5} \sqrt{\frac{10^{-2}}{10^{-6}}} = 10$

$Q = 1.52$

$f_1 = \frac{1}{2\pi RC} = \frac{1}{2\pi \times 10^5 \times 10^{-6}} = 0.8$
 $Q = 10 \times 0.8 = 8$

$R_i = \frac{1}{\frac{1}{2000} + \frac{1}{1000}} = 666.6 \Omega$

the cond. of plate is 5.2×10^{-5}

$f = \frac{1}{2\pi RC} = \frac{1}{2\pi \times 666.6 \times 5.2 \times 10^{-5}} = 3000$

Power Measure

