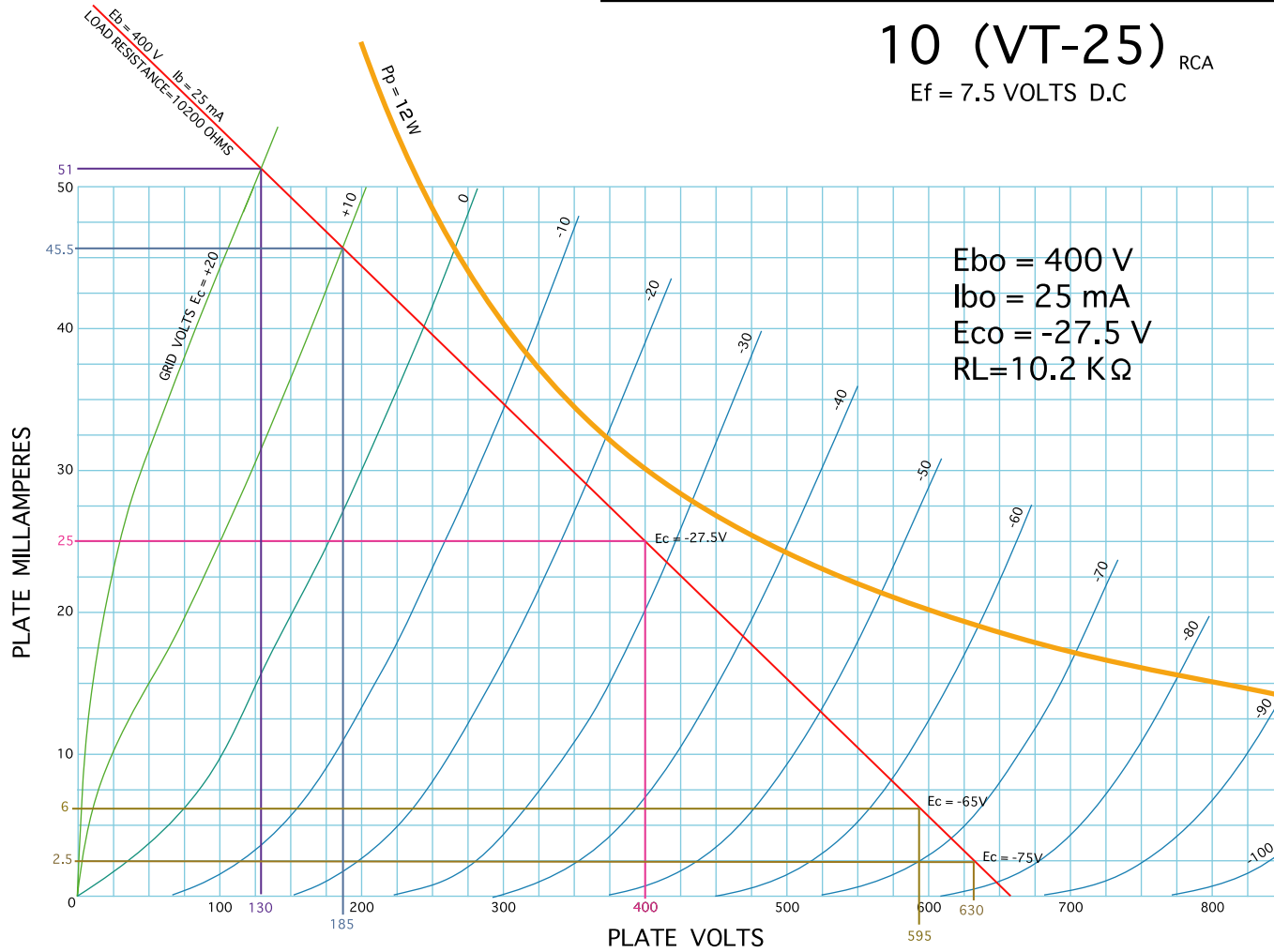


AVERAGE PLATE CHARACTERISTICS

10 (VT-25) RCA

Ef = 7.5 VOLTS D.C



CHARACTERISTICS

Filament Voltage	7.5	Volts
Filament Current	1.25	Amperes
Plate Voltage	425	Volts
Plate Dissipation	12	Watts

Plate Voltage	250	350	425	V
Grid Voltage	-23.5	-32	-40	V
Plate Current	10	16	18	mA
Plate Resistance	6000	5150	5000	Ω
Amplification Factor	8	8	8	
Transconductance	1330	1550	1600	μS
Load Resistance	13000	11000	10200	Ω
SelfBias Resistor	2350	2000	2220	Ω
Undistorted Power Output	0.4	0.9	1.6	W

Yoshida.Y 2001.02

case 1 (Ec = +20 ~ -75)

$$P_o = \frac{(E_b \text{ max} - E_b \text{ min}) \cdot (I_b \text{ max} - I_b \text{ min})}{\text{speaker imp}} = \frac{(630 - 130) \cdot (0.051 - 0.0025)}{8} = 3.03125 \text{ W}$$

$$KF = \frac{0.5 \cdot (I_b \text{ max} + I_b \text{ min})}{I_b \text{ max} - I_b \text{ min}} \cdot 100 = \frac{0.5 \cdot (51 + 2.5) - 25}{51 - 2.5} \cdot 100 = 3.608247422 \%$$

case 2 (Ec = +10 ~ -65)

$$P_o = \frac{(E_b \text{ max} - E_b \text{ min}) \cdot (I_b \text{ max} - I_b \text{ min})}{\text{speaker imp}} = \frac{(595 - 185) \cdot (0.0455 - 0.006)}{8} = 2.024375 \text{ W}$$

$$KF = \frac{0.5 \cdot (I_b \text{ max} + I_b \text{ min})}{I_b \text{ max} - I_b \text{ min}} \cdot 100 = \frac{0.5 \cdot (45.5 + 6) - 25}{45.5 - 6} \cdot 100 = 1.898734177 \%$$