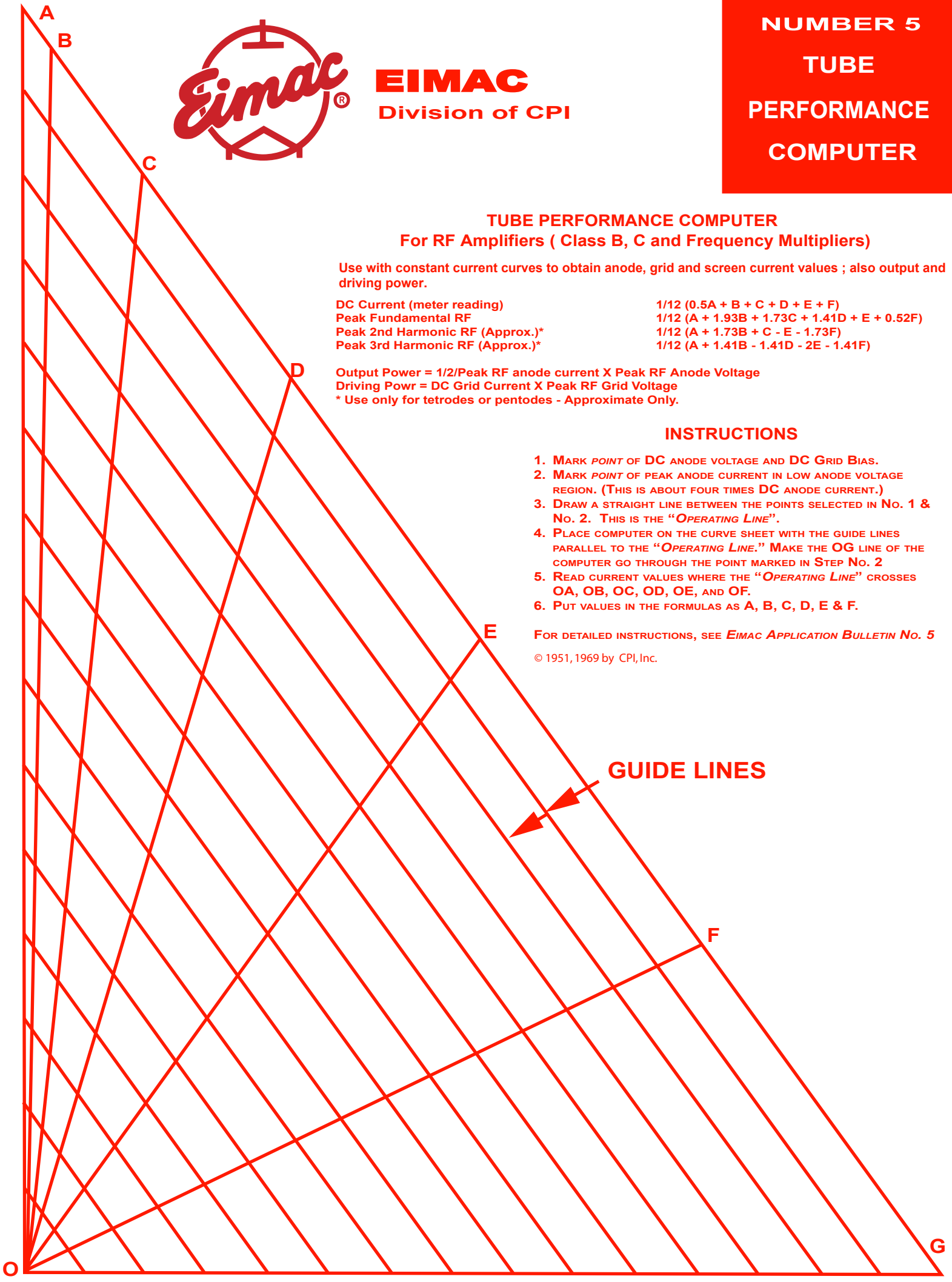

EIMAC
Division of CPI

NUMBER 5
TUBE
PERFORMANCE
COMPUTER

TUBE PERFORMANCE COMPUTER
For RF Amplifiers (Class B, C and Frequency Multipliers)

Use with constant current curves to obtain anode, grid and screen current values ; also output and driving power.

DC Current (meter reading)	1/12 (0.5A + B + C + D + E + F)
Peak Fundamental RF	1/12 (A + 1.93B + 1.73C + 1.41D + E + 0.52F)
Peak 2nd Harmonic RF (Approx.)*	1/12 (A + 1.73B + C - E - 1.73F)
Peak 3rd Harmonic RF (Approx.)*	1/12 (A + 1.41B - 1.41D - 2E - 1.41F)

Output Power = 1/2/Peak RF anode current X Peak RF Anode Voltage
Driving Powr = DC Grid Current X Peak RF Grid Voltage
* Use only for tetrodes or pentodes - Approximate Only.

INSTRUCTIONS

1. Mark *point* of DC anode voltage and DC Grid Bias.
2. Mark *point* of peak anode current in low anode voltage region. (This is about four times DC anode current.)
3. Draw a straight line between the points selected in No. 1 & No. 2. This is the "*Operating Line*".
4. Place computer on the curve sheet with the guide lines parallel to the "*Operating Line*." Make the OG line of the computer go through the point marked in Step No. 2
5. Read current values where the "*Operating Line*" crosses OA, OB, OC, OD, OE, and OF.
6. Put values in the formulas as A, B, C, D, E & F.

For detailed instructions, see *Eimac Application Bulletin No. 5*