

ELECTRONICS FORMULAS AND LAWS

Ohm's Law and Power Nomograph

Figure 1-2 shows a nomograph that can be used to calculate current, voltage, resistance, or power, given two of the four variables. To use the nomograph, find the first value on one scale, the second on another scale, and lay a straight-edge from one point to the other. The remaining two values are read from the other two scales. Two sets of scales are superimposed on the four axes of the nomograph. When using the nomograph, always work with either the left or right scales on all four axes.

Example: Given a resistance of 1000 ohms and a voltage of 10 volts, what is the current and power dissipation? The resistance is found on the Resistance scale and the voltage is found on the Voltage scale. When the two points are connected by a straight-edge, the power is found to be 0.1 watt and the current to be 10 milliamperes.

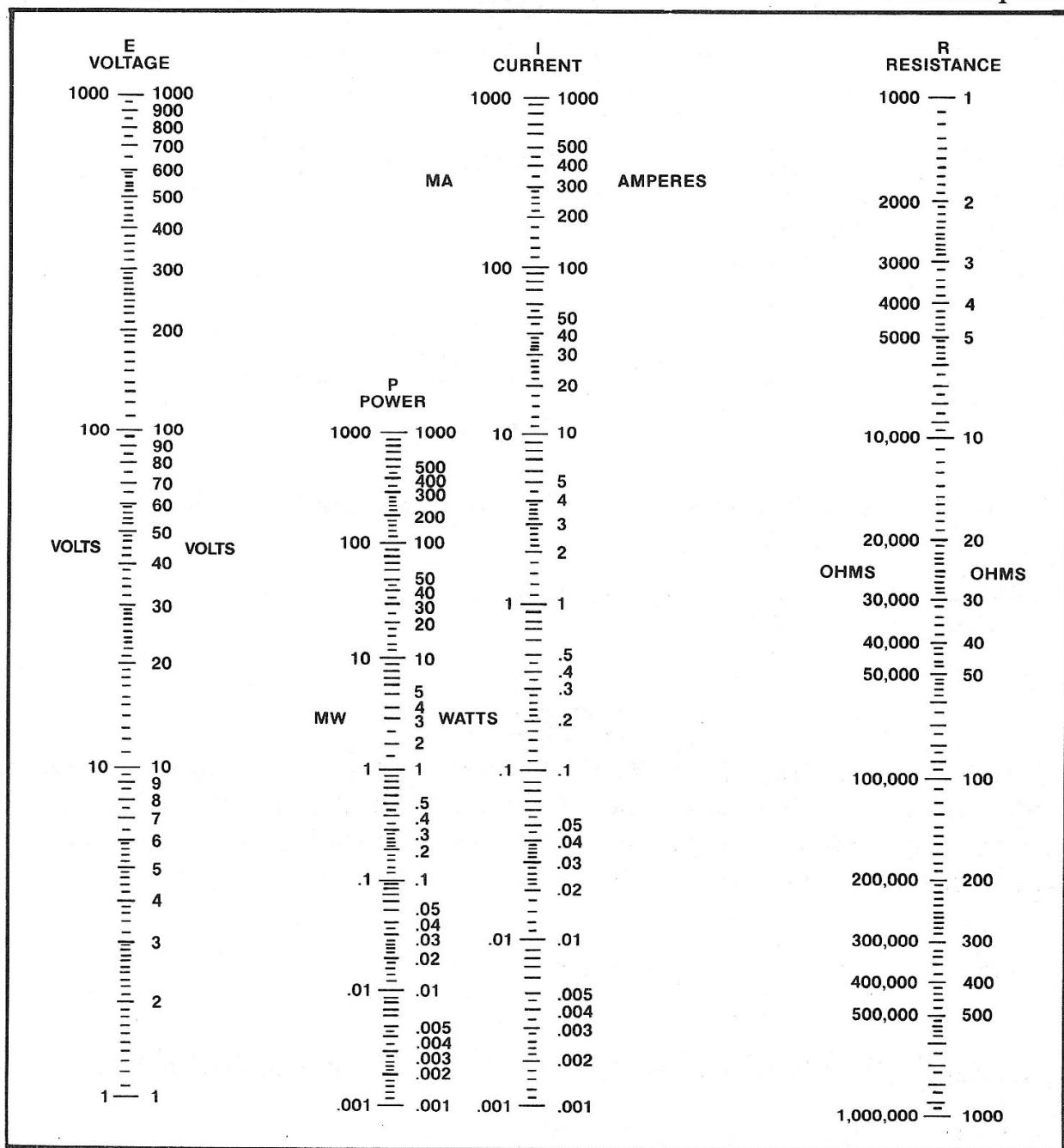


Figure 1-2. Ohm's Law Nomograph