

Verifying DC Ohm's Law (31:06)

Determine the current drawn and the power dissipated by a potentiometer set at 600Ω experiencing a 6V differential.

Determine the voltage necessary to push 12mA of current through a potentiometer set to 600Ω .

Determine the resistance necessary to limit current to 9mA for a potentiometer experiencing a 7.2V differential.

Calculate current through and power dissipated by $R_1 = 560\Omega$ and $R_2 = 560\Omega$ experiencing 0-12V in 2V increments. Plot current and power as a function of voltage.

V	I1 (mA)	P1 (mW)	I2 (mA)	P2 (mW)
0				
2				
4				
6				
8				
10				
12				

Comment on how an inadvertent open can influence observed properties of an electrical circuit.

Comment how an inadvertent short can influence observed properties of an electrical circuit.

Comment how improper use of instrumentation can influence observed properties of an electrical circuit.

Determine the current drawn and the power dissipated by a 150Ω resistor intended for low power applications of less than 250mW experiencing a 20V differential.

Comment on the utility of performing calculations prior to making observations.