Electrical Units Guide for Simple Resistive Circuits

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Name	Derivative	Integral	Algebraic	Units
Current	$i(t) = \frac{dq(t)}{dt}$	$q(t) = \int i(t)dt$	$I = \frac{Q}{T}$	$Ampere = \frac{Coulomb}{Second}$
Power	$P(t) = \frac{dW(t)}{dt}$	$W(t) = \int V(t)dt$	$P = IV$	$Power = Current \times Voltage$
Resistance	Constant	Constant	$R = \frac{V}{I}$	$Ohm = \frac{Voltage}{Current}$
Voltage	$V(t) = \frac{dW(t)}{dq}$	$W(t) = \int V(t)dq$	$V = \frac{W}{Q}$	$Volt = \frac{Joule}{Coulomb}$