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EE215 – FUNDAMENTALS OF ELECTRICAL ENGINEERING

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EE215

































































COMPARISON		
Resistor	Inductor	Capacitor
	-m-	—
$R\left[\Omega ight]$	<i>L</i> [H]	<i>C</i> [F]
$\Omega = V/A$	H = Vs/A	F = As/V
v = Ri	v = L di/dt	i = C dv/dt
$p = vi = i^2 R = v^2 / R$	p = Li di/dt	p = Cv dv/dt
$w = \int vi dt$	$w = \frac{1}{2}Li^2 *$	$w = \frac{1}{2}Cv^2 *$ *stored
$R_{\rm eq} = \Sigma_i R_i$	$L_{\rm eq} = \Sigma_i L_i$	$1/C_{eq} = \Sigma_i 1/C_i$ series
$1/R_{\rm eq} = \Sigma_i 1/R_i$	$1/L_{eq} = \Sigma_i 1/L_i$	$C_{\rm eq} = \Sigma_i C_i$ parallel
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