Eletrônica Analógica
Retificação

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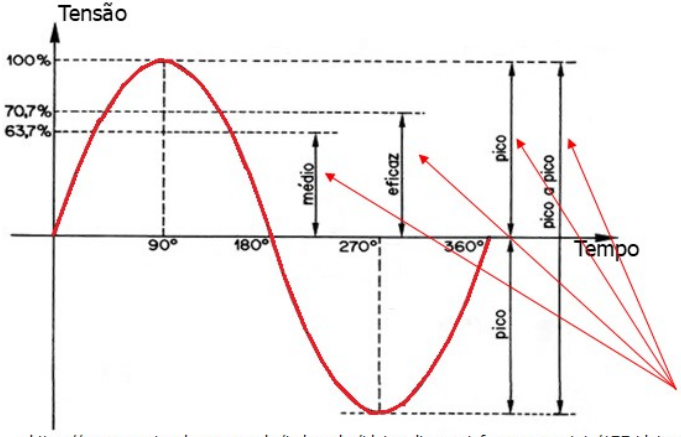
Rev. outubro de 2025

Descrição

- O fornecimento de Tensão da rede elétrica é Alternada



https://www.newtoncbraga.com.br/index.php/ideias-dicas-e-informacoes-uteis/177-ideias-praticas/12290-tensao-de-pico-eficaz-e-rms-ip1315.html

- Mas equipamentos eletrônicos requerem corrente contínua

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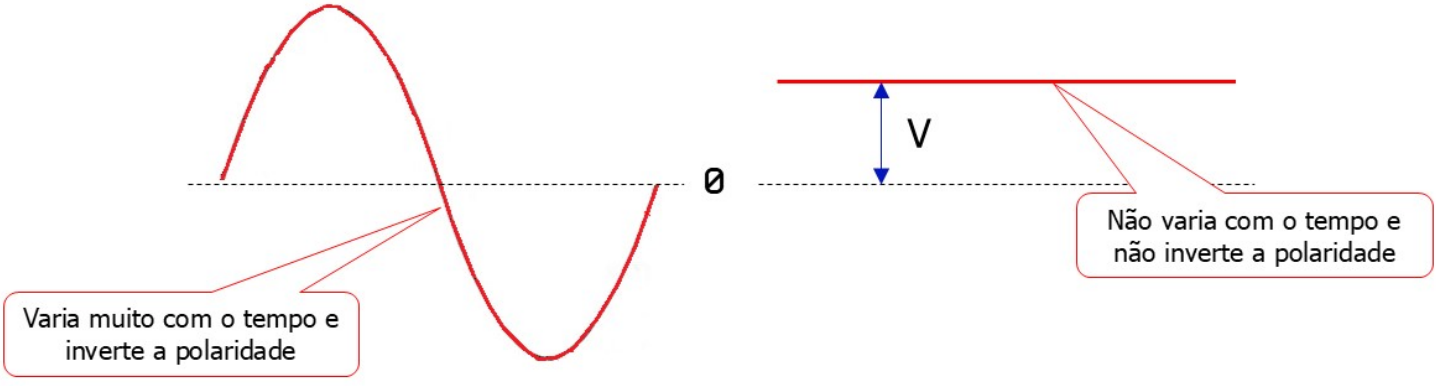

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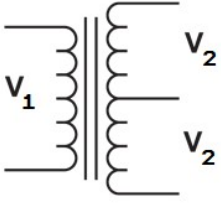
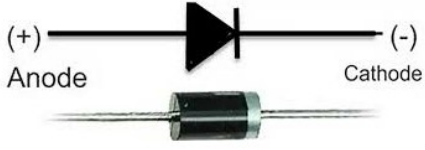
Processo de retificação com diodos





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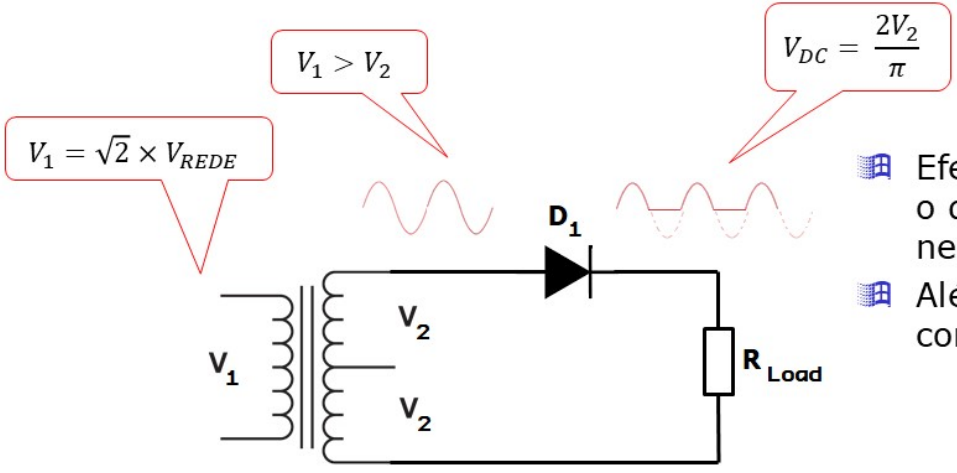
Detalhe



- Efetivamente o que acontece é que o diodo não conduz no semiciclo negativo
- Além disso isto não é corrente contínua. É pulsada positiva.

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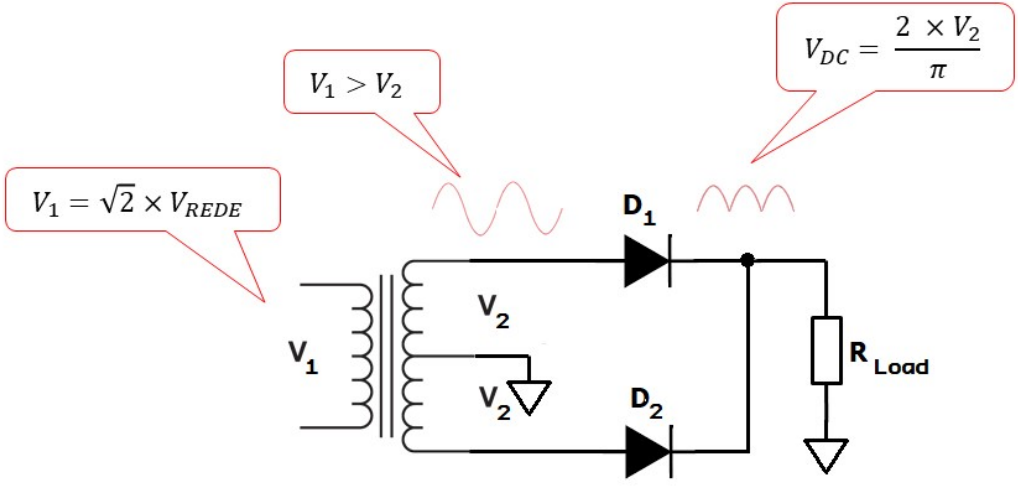
Retificação com Center tap



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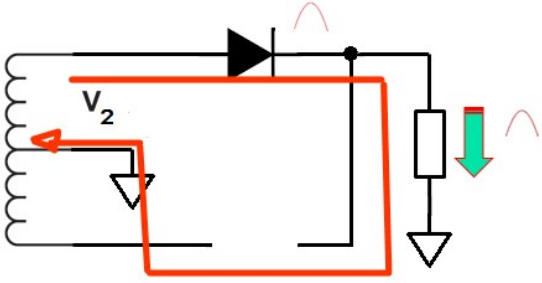
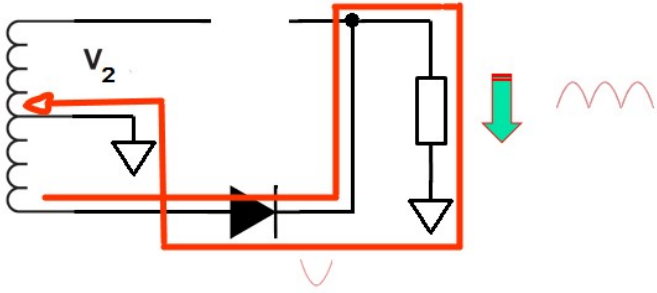
Explicando





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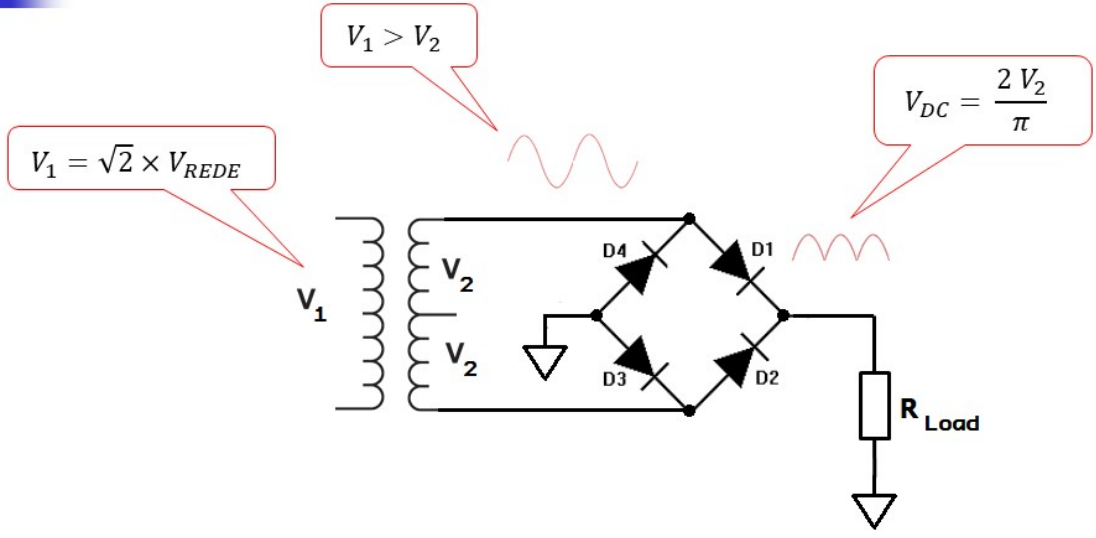
Retificação com Ponte



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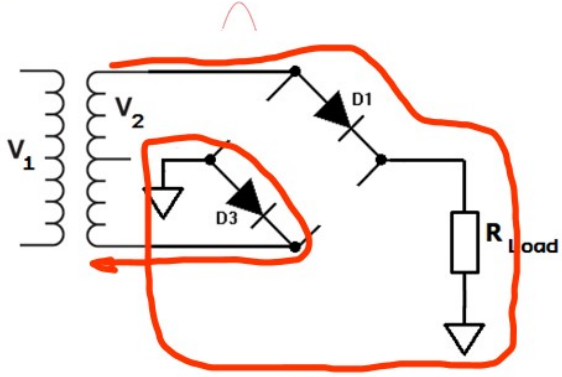
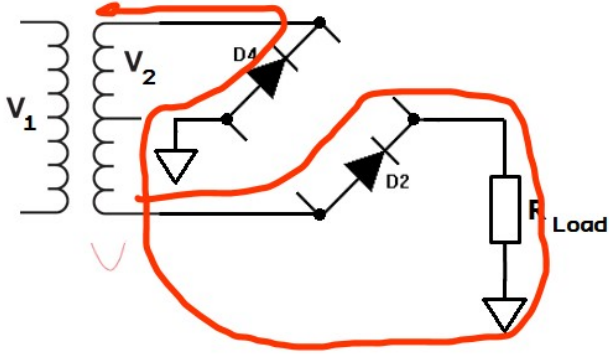
Explicando





- Observe que apenas dois diodos funcionam em cada ciclo

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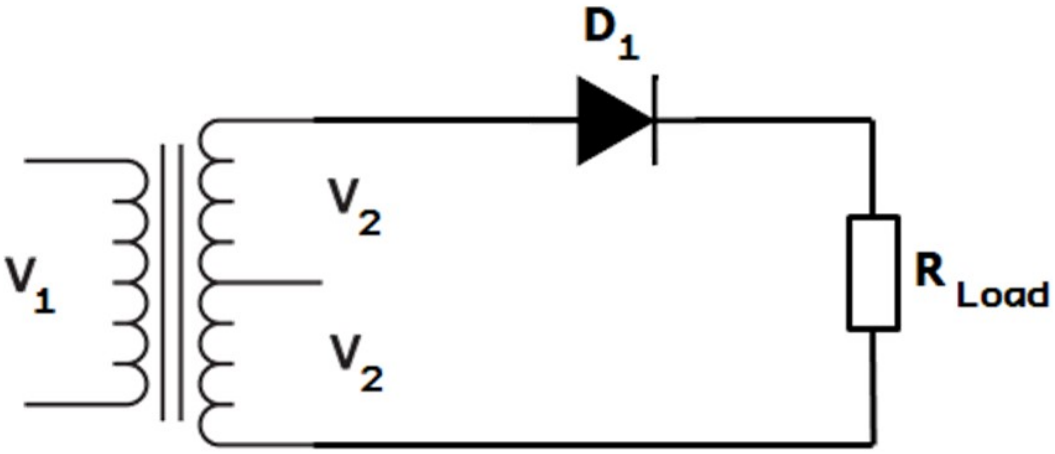
FILTRO CAPACITIVO

Inserindo um capacitor

CASO DO RETIFICADOR DE MEIA ONDA



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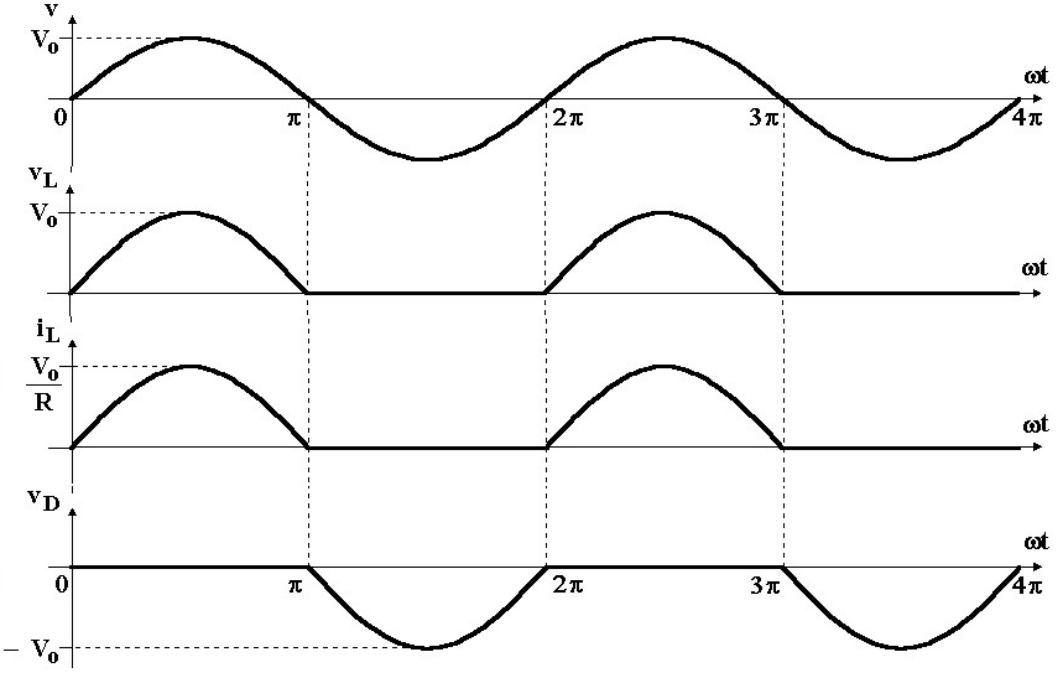
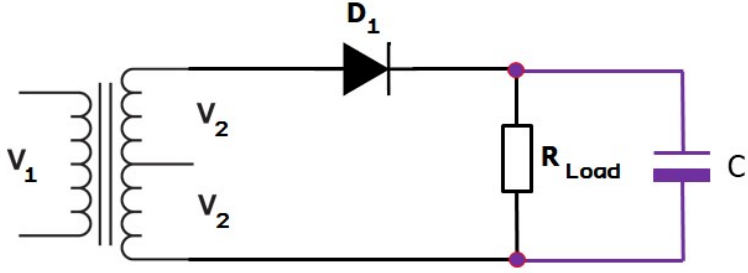
$V_o = V_{out}$

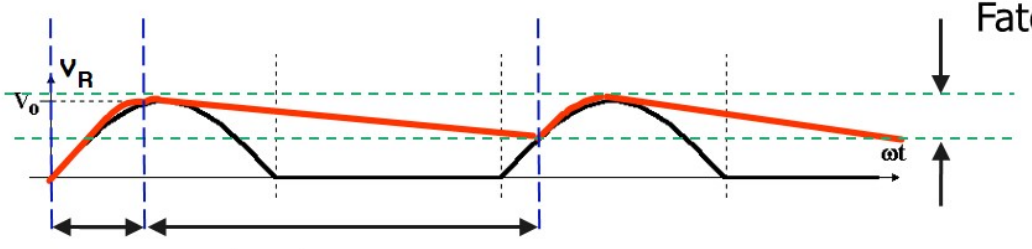
V_L = Tensão na carga

I_L = Corrente na carga

V_D = Tensão no Diodo







Fator de Ondulação
ou γ Ripple

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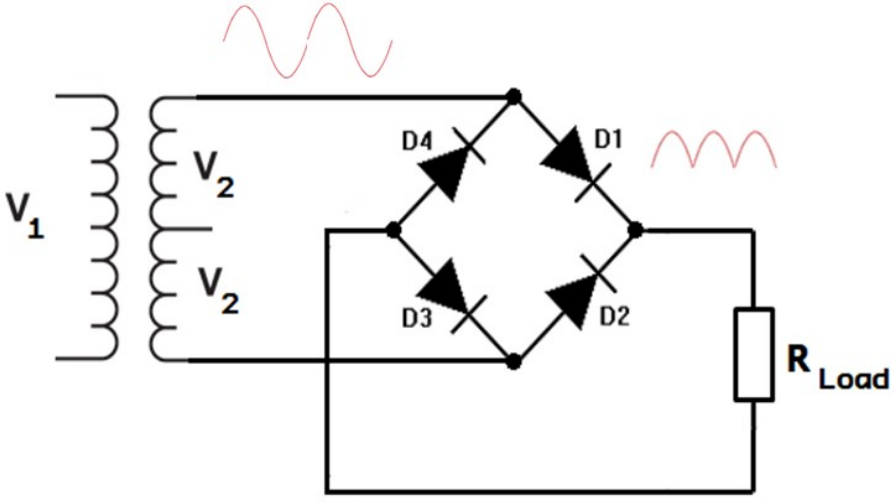
CASO DO RETIFICADOR DE ONDA COMPLETA



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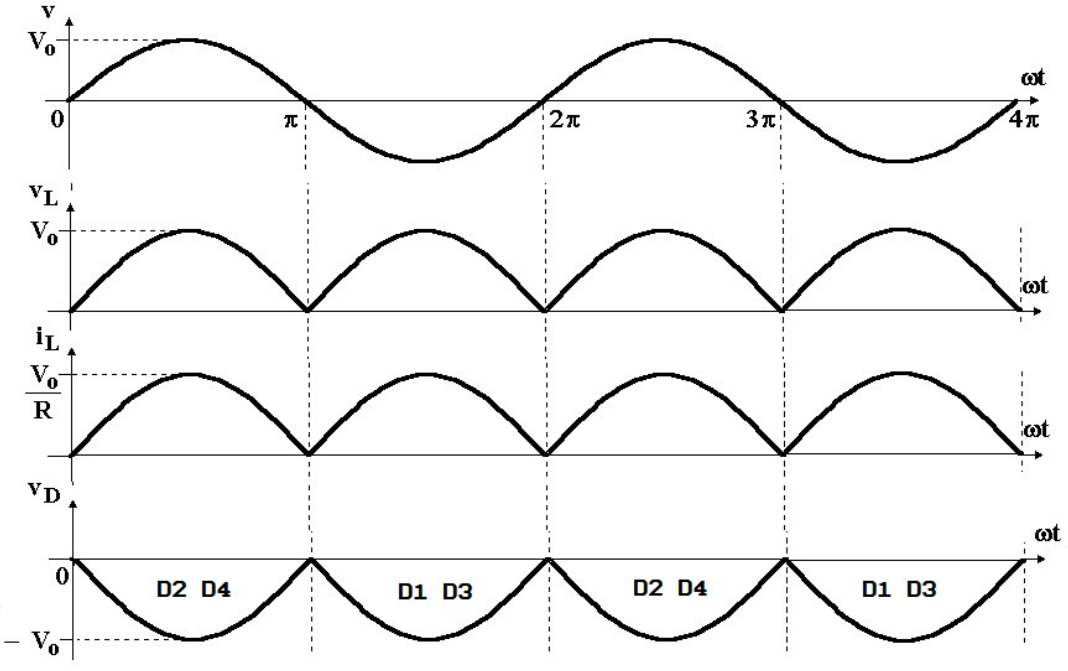
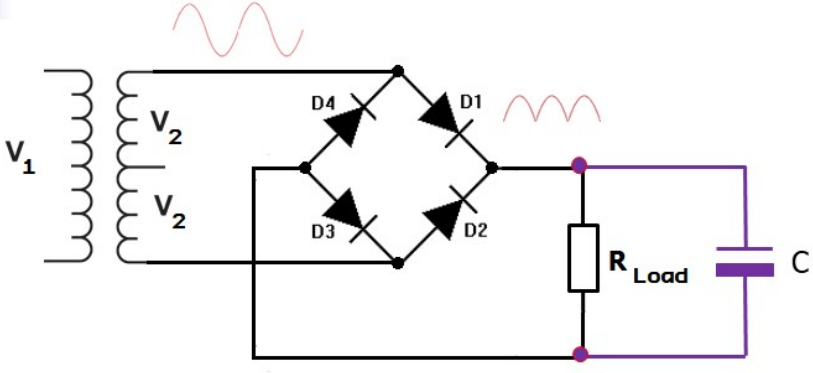
$V_o = V_2$

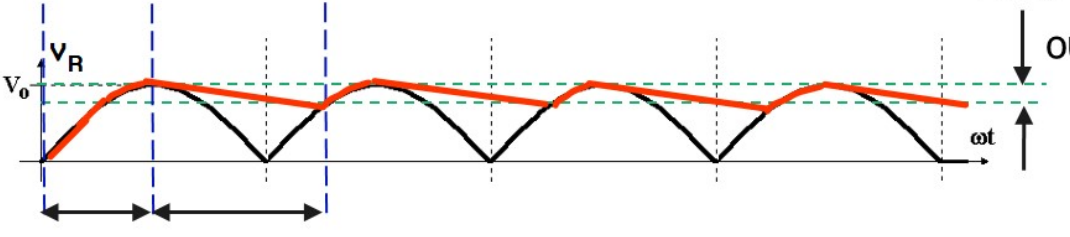
V_L = Tensão na carga

I_L = Corrente na carga

V_D = Tensão nos Diodos







Fator de Ondulação
ou γ Ripple

carga<descarga

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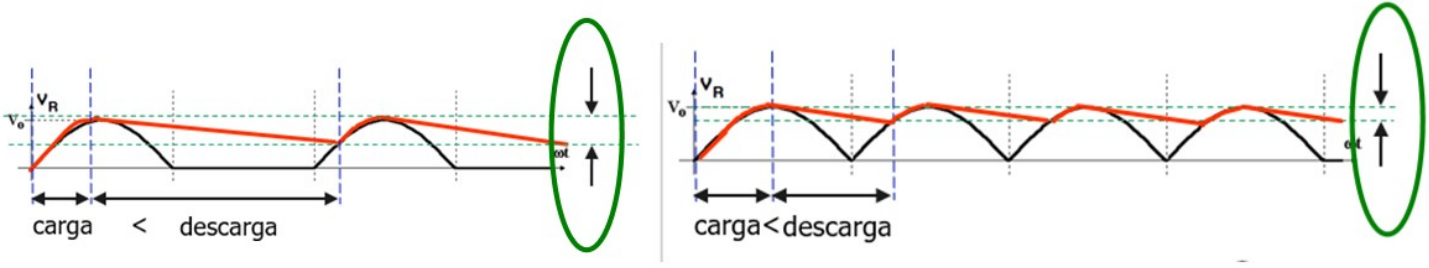
Comparando...



- Visualmente é fácil observar que o ripple (γ) da meia onda é maior que o ripple (γ) de onda completa

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