The Vishay PowerCAD Simulation tool is a free on-line tool that gives engineers a fast and convenient way to test and optimize DC/DC circuits built with Vishay Siliconix regulator ICs.

Using an intuitive interface, Vishay’s PowerCAD Simulation tool supports both experienced analog and power designers as well as junior or digital designers with less experience in high-power, high-frequency voltage regulator design.

RESOURCES
- The Vishay PowerCAD Simulation tool: http://vishay.transim.com/
- Demo Board Documentation of SiC403A/B, SiC402A/B, and SiC401A/B Synchronous Buck Regulators: www.vishay.com/doc?62923
- For technical questions contact powerictechsupport@vishay.com
Based on the required operating conditions, the engineer can select the appropriate regulator from the Vishay product offering and generate a full circuit schematic for the application.

Click on “New” and name your design.

Enter your parameters to filter the parts table, then select the part number to start your design.

Modify optional parameters based on your specifications.

Create Design
The schematic can then be edited as required for more advanced users or for performance comparison purposes.

Once the basic circuit is created, the designer can perform DC, transient, and start-up simulations with visibility of all the circuit node waveforms.
An efficiency analysis and optimization of the circuit with detailed power loss analysis may also be performed.

View and compare efficiency of your circuit design.

Generate a bill of materials (BOM).

You can review your design through the “More” tab.

Create a contact list, share your results with your own contacts or with Vishay FAEs for additional technical support, review your activity log, and browse by design.