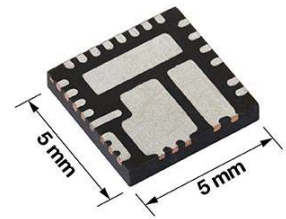


SiC466/7/8/9 and SiC476/7/8/9 2 A to 12 A Synchronous Buck Regulators in Compact 5x5 PowerPAK[®] Package Offer Peak Efficiencies of 98 %, Wide Input Voltage Ranges From 4.5 V to 60 V, and Internal Compensation to Reduce External Components

Product Benefits:

- High power voltage regulator in a compact 5x5 PowerPAK[®] package
- Versatile
 - Scalable solution: 2 A, 3 A, 4 A, 5 A, 6 A, 8 A, 10 A, and 12 A
 - Input voltages from 4.5 V to 55 V (SiC476/7/8/9) and 4.5 V to 60 V (SiC467/8/9)
 - Adjustable output voltage from 24 V down to 0.8 V
- Highly efficient
 - High light load efficiency driven by 156 μ A operating current
 - Peak efficiencies of 98 % driven by low $R_{DS(on)}$ power MOSFET
- Fast transient response
- Internal compensation reduces design complexity and component count
- Highly configurable
 - Adjustable switching from 100 kHz to 2 MHz
 - Adjustable soft start and current limits
 - Two operating modes: forced continuous conduction or power save
- Robust and reliable
 - Rugged trench MOSFET, UIS tested
 - Output overvoltage protection (OVP)
 - Output undervoltage protection (UVP)
 - Overcurrent circuit protection (OCP)
 - Short circuit protection (SCP) with auto retry
 - Over temperature protection (OTP)
 - Power good flag



Market Applications:

- DC/DC converters for industrial and factory automation, home automation, industrial computing, base station power supplies, 5G network equipment and small cells, wall transformer regulation, robotics, drones, battery management systems, power tools, and vending, ATM, and slot machines



The News:

Vishay Intertechnology introduces two new families of 2 A to 12 A microBUCK® synchronous buck regulators featuring wide input voltage ranges from 4.5 V to 55 V (SiC476/7/8/9) and 4.5 V to 60 V (SiC466/7/8/9). Combining rugged high performance n-channel trench MOSFETs with an advanced controller in the compact 5x5 PowerPAK package, the Vishay Siliconix devices deliver high efficiency and power density, while their internal compensation reduces the external component count and simplifies designs.

- High efficiency at both light loads and full loads allows designers to increase power density by reducing power losses
- Combined with the superior thermal design of the 5x5 PowerPAK package, the devices' efficiency enables cooler operation for improved long term reliability, while eliminating the need for a heatsink
 - This allows designers to shrink the PCB size, simplify thermal management, and reduce system costs
- All devices are footprint-compatible to provide designers with a scalable solution
- COT architecture delivers ultrafast transient response with minimum output capacitance and tight ripple regulation at light loads
 - Enables loop stability regardless of the type of output capacitor used, including low ESR ceramic capacitors

The Key Specifications:

Part number	V _{IN} range (V)	V _{OUT} range (V)	I _{OUT} (A)
SiC469	4.5 to 60	0.8 V to 24	2
SiC468			4
SiC467			6
SiC466			10
SiC479	4.5 to 55		3
SiC478			5
SiC477			8
SiC476			12

Availability:

Samples and production quantities of the SiC466/7/8/9 and SiC476/7/8/9 families are available now, with lead times of 12 weeks.

To access the product datasheets on the Vishay Website, go to
<http://www.vishay.com/ppg?76044> (SiC466, SiC467, SiC468, SiC469)
<http://www.vishay.com/ppg?77113> (SiC476, SiC477, SiC478, SiC479)

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