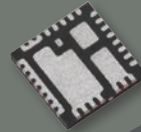


VRPower[®] Power Stage

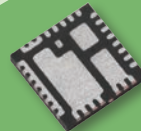
55 A, Up to 18 V Input Power Stage Plus With **Increased Protection and Temperature Sensing**

SiC64x SERIES



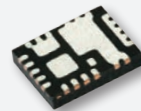
50 A, Up to 24 V Input Power Stage Plus With **Increased Protection and Temperature Sensing**

SiC65x SERIES



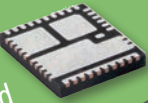
35 A, Up to 24 V Input Eco Power Stage in **3.5 mm x 4.5 mm Package**

SiC53x SERIES



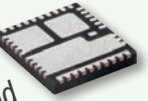
80 A, Up to 18 V Input Smart Power Stage With **Current and Temperature Sensing**

SiC82x SERIES



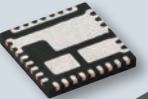
70 A, Up to 24 V Input Smart Power Stage With **Current and Temperature Sensing**

SiC83x SERIES



60 A, Up to 18 V Input Smart Power Stage With **Current and Temperature Sensing**

SiC645





VRPower® POWER STAGE

Focus Products

VRPower® Power Stage Overview

Smart Power Stage 40 A to 80 A

- Pico dead-time control
- IMON ± 2 %
- TMON ± 3 %

Gen 4.5
Gen 5
MOSFETs

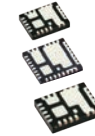


5 mm x 6 mm
5 mm x 5 mm

Power Stage Plus 35 A to 60 A

- Advanced dead-time control
- HS OCP protection
- Over-temperature protection
- Temperature range

Gen 4.5
MOSFETs

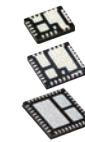


3.5 mm x 4.5 mm
5 mm x 5 mm

ECO Power Stage 30 A to 60 A

- 4.5 V_{IN} to 24 V_{IN}
- 3.3 V / 5 V PMW interface
- High frequency up to 2 Mhz
- Adaptive dead-time control
- ZCD / SMOD interface
- Low Iq (3 µA)

Gen 4
MOSFETs



3.5 mm x 4.5 mm
5 mm x 5 mm
6 mm x 6 mm

Pick the Right Part for Your Application

Notebook - Power Stage Roadmap

V in Max.	3.5 mm x 4.5 mm		5 mm x 5 mm			5 mm x 6 mm	
	18 V	24 V	18 V	24 V	28 V	18 V	24 V
80 A						SiC820 ●	
70 A							SiC830 ●
60 A			SiC645 SiC620				
55 A			SiC64x ■ SiC641 ●				
50 A				SiC651 ● SiC638/9 SiC631/4	SiC65x ■		
35 A		SiC537 ■ SiC533					
30 A		SiC536 ■ SiC532					
25 A	SiC521						

Smart PowerStage

Plus PowerStage

ECO PowerStage

■ Coming Soon

● New



VRPower® POWER STAGE

Focus Products

Product Family

Family	Package	Part Number	Input Voltage	Max. Current	Light Load			Features			Protections						
					SMOD	ZCD	PS4	IMON	TMON	FAULT	LS-UVLO	HS-UVLO	OCP	HS-Short	OTP	THW	
Smart Power Stage	5 mm x 5 mm	SiC645	4.5 V to 18 V	60 A	√			√	√	√	√	√	√	√		√	
	5 mm x 6 mm	SiC820	4.5 V to 18 V	80 A				√	√		√				√		
		SiC825						√	√	√	√	√	√		√		
		SiC830	4.5 V to 24 V	70 A				√	√		√				√		
		SiC835						√	√	√	√	√	√	√		√	
Power Stage Plus	3.5 mm x 4.5 mm	SiC537	4.5 V to 24 V	35 A		√	√		√		√	√	√		√		
		SiC547				√	√		√		√	√	√		√		
	5 mm x 5 mm	SiC641	4.5 V to 18 V	55 A		√	√		√		√	√	√	√	√	√	
		SiC642				√	√		√		√	√	√	√	√	√	
		SiC651	4.5 V to 24 V	50 A		√	√		√		√	√	√	√	√	√	
		SiC652				√	√		√		√	√	√	√	√	√	
Eco Power Stage	3.5 mm x 4.5 mm	SiC521	4.5 V to 18 V	30 A		√					√						
		SiC531	4.5 V to 24 V			√					√						
		SiC534			√	√				√							
		SiC533		√	√				√								
	5 mm x 5 mm	SiC620	4.5 V to 18 V	60 A		√						√					√
		SiC621				√	√				√						
		SiC632	4.5 V to 24 V	50 A		√						√					√
		SiC634				√	√				√						
		SiC638				√					√						√
		SiC639				√					√						√
	6 mm x 6 mm	SiC788	4.5 V to 18 V	50 A	√							√					√
		SiC789		60 A	√							√					√



VRPower® Power Stage Integrates a Driver IC and a Pair of MOSFETs to Offer an **Efficient Power Stage** for **Multi-Phase Applications**

Advantages of Vishay VRPower® Integrated Circuits

- Four compact industry standard footprint options
- Three level of features and protections
- Industry-leading efficiency

For the Following Applications

- Servers and workstations
- Data center and cloud
- Telecom ASIC power
- High performance notebooks
- Game consoles
- POL modules
- Graphics cards
- Mining hardware



Optimize your data center and server farm power consumption and performance with the current and temperature monitoring capabilities of the SiC820



Use our compact 3.5 mm x 4.5 mm VRPower® devices with $< 3 \mu\text{A}$ shutdown current in your ultrabook designs and save battery life

Useful Links

- VRPower® (DrMOS) Web Tables
www.vishay.com/power-ics/integrated-drmos/



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COMPLIANT

HALOGEN
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A **WORLD OF**
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