

# SIL60C2 Dual Row Pins

60 Amps

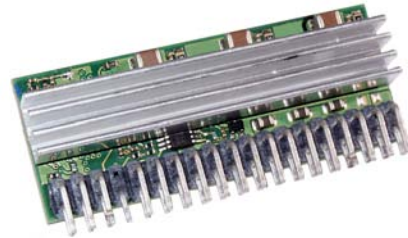
Total Power: 240 W  
Input Voltage: 4.5 - 13.8  
No. of Outputs: Single

## Special Features

- 2 bit VID adjustable output voltage
- Phase shedding for power saving during light loads
- High power density design means reduced board space requirement
- Power good output signal
- Operating ambient temp up to +70 °C with suitable derating and forced air cooling
- Remote ON/OFF (active high)
- 0 A minimum load
- Input under-voltage lockout
- EU directive 2002/95/EC compliant for RoHS

## Safety

Designed to meet EN60950 when used in end use equipment.



## Electrical Specifications

Output		
Output voltage		0.8 - 4.0 V
Output setpoint accuracy	With VID	1%
Line regulation	Low line to high line	±0.3%
Load regulation	Full load to min. load	±0.2%
Load line		0.225 μΩ
Min/Max Load		0 A/60 A
Overshoot	At turn on	2% max.
Over current protection		>88 A
Ripple and noise		<40 mV
5 Hz to 20 MHz		Vin=12 V, Vout=1.5 V
Transient	Deviation (dependent on output capacitance)	±5% mV 20 us recover to within regulation band
Input		
Input voltage		4.5 -13.8 V
Input current (max.)	Minimum load Remote ON/OFF	65 mA 20 mA
Input current (max.)		20.0 A @ Io max.
Start-up time	Power-up Remote ON/OFF	<20 ms <20 ms
General		
Efficiency	Vi = 12 V, Vo = 1.5 V, Iout=60 A	89%
Switching frequency	Fixed/ph	300 kHz
Material flammability		UL94V-0
Weight		TBD
MTBF	12 V @ 40 °C 100% load Bellcore 332	> 5,000,000 hours

## Environmental Specifications

Thermal Performance		
Ambient	Operating	0 °C to +70 °C
	Non-operating	-40 °C to +125 °C

Protection	
Short-circuit	Hiccup, Non-latching
Over-voltage	Latching
Over-temperature	Hiccup, Non-latching

Recommended System Capacitance		
Input Capacitance	ceramic	3x22 µF
Output Capacitance		1,500 µF

## Setting Output Voltage

Default output voltage is set with the 2 bit VID as follows:

Vid1	Vid0	Vout
1	1	0.8 V
1	0	1.0 V
0	1	1.2 V
0	0	1.4 V

The output voltage may be optionally adjusted with a resistor placed in the series with the sense line , from 0.8 V to 4.0 V.

To trim the output voltage, place a resistor in series with pin 6 (RS+). The formula for calculating the value of this resistor is:

$$R_{trim} = 2000 \times \left( \frac{V_{out} - VID_{SET}}{VID_{SET}} \right)$$

\*When trimming output voltage always choose the nearest VID V<sub>out</sub> setting.

## Operating Information

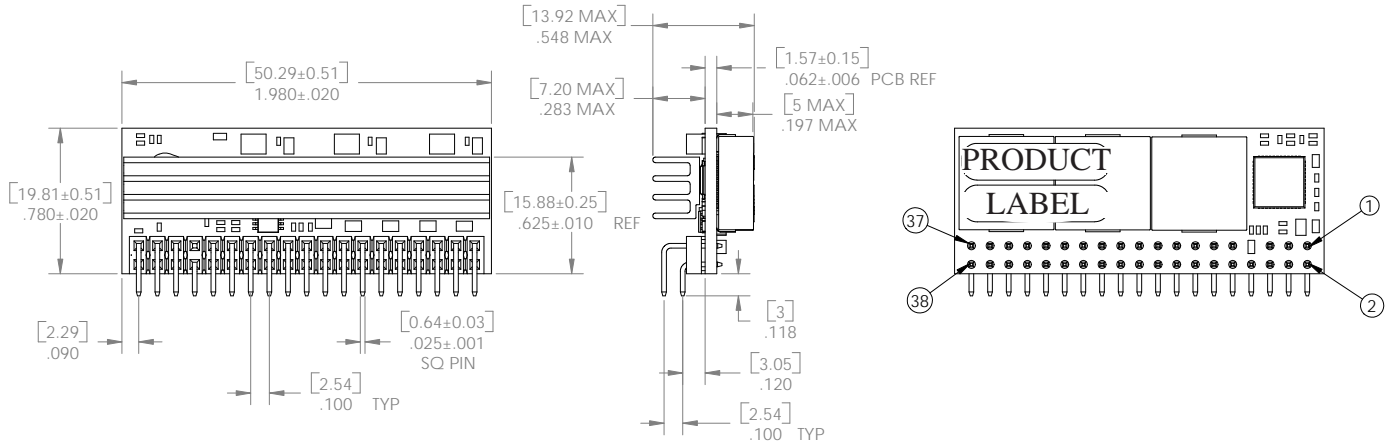
Ordering Information									
Output Power (Max.)	Input	Output	Output Current (Min.)	Output Current (Max.)	Efficiency (Typical)	Regulation Line	Load	Orientation	Model Number
240 W	4.5 - 13.8 V	0.8 - 4.0 Vdc	0 A	60 A	89%	±0.3%	±0.5%	Vertical	SIL60C2-00SADJ-VDJ

## Ordering Information

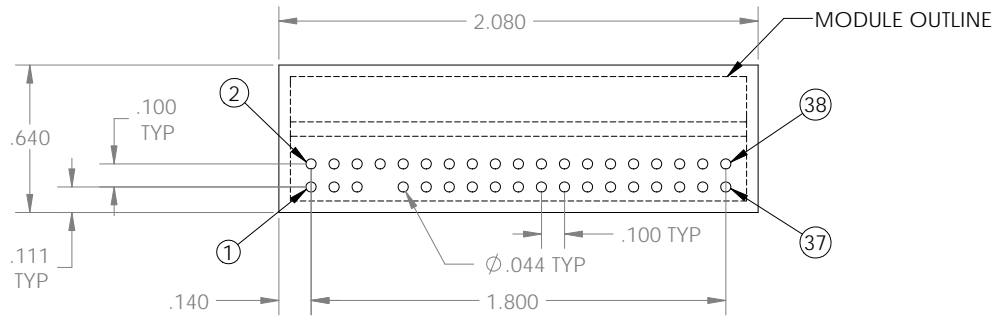
Product Family	Rated Output Current	Performance	Generation	Input Voltage	Output Voltage	Mounting Option	Pins	RoHS Compliance
<b>SIL</b>	<b>60</b>	<b>C</b>	<b>2</b>	<b>- 00</b>	<b>SADJ</b>	<b>- X</b>	<b>D</b>	<b>J</b>
<b>Product Family</b> SIL = Single In Line SMT = Surface Mount	<b>Rated Output Current</b> 60 = 60 A	<b>Performance</b> C = Cost Optimized	<b>Generation</b> 2 = Increased Current Density	<b>Input Voltage</b> 00 = 4.5-13.8 V	<b>Output Voltage</b> Single Adjustable Output	<b>Mounting Option</b> H =Horizontal V = Vertical	<b>Pin</b> D = dual row	<b>RoHS Compliance</b> J = Pb-free (RoHS 6/6 compliant)

# Mechanical Drawing

## Mechanical Drawing



## Footprint



Pin Assignments		Pin Assignments	
Single Output			
1. VID0	11. VIN	20. Vout	30. Ground
2. Viout*	12. VIN	21. Ground	31. Ground
3. VID1	13. VIN	22. Ground	32. Ground
4. PGood	14. VIN	23. Ground	33. Vout
5. RS-	15. Ground	24. Ground	34. Vout
6. RS+	16. Ground	25. Vout	35. Vout
7. Open	17. Vout	26. Vout	36. Vout
8. Enable	18. Vout	27. Vout	37. Ground
9. Ground	19. Vout	28. Vout	38. Ground
10. Ground		29. Ground	

\*Viout is a current monitoring pin. 31mV / A, ±15% tolerance.

### Americas

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: 760 930 4600  
Facsimile: 760 930 0698

### Europe (UK)

Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX  
United Kingdom  
Telephone: +44 (0) 1384 842 211  
Facsimile: +44 (0) 1384 843 355

### Asia (HK)

14/F, Lu Plaza  
2 Wing Yip Street  
Kwun Tong, Kowloon  
Hong Kong  
Telephone: +852 2176 3333  
Facsimile: +852 2176 3888

For global contact, visit:

**[www.Emerson.com/Embedded  
Power](http://www.Emerson.com/EmbeddedPower)**  
**[techsupport.embeddedpower  
@emerson.com](mailto:techsupport.embeddedpower@emerson.com)**

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

**Emerson Network Power.**  
The global leader in enabling  
business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- **Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

**EmersonNetworkPower.com**

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2011 Emerson Electric Co.

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9