

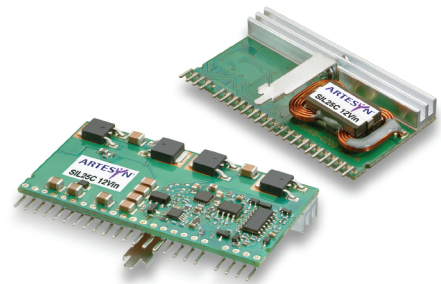
SIL25C Series

12 Vin single negative output

NEW Product



- **25 A current rating**
- **Input voltage range: 10.2 Vdc to 13.8 Vdc**
- **nominal output voltage: -5.05 Vdc**
- **Industry leading value**
 - Cost optimized design
- **Excellent transient response**
- **Output Voltage adjustability**
 - Supports silicon voltage migration
 - Resulting in reduced design-in and qualification time
- **Designed in reliability: MTBF of 3 million hours per Telcordia SR-332**
- **Available RoHS compliant**



The SIL25C Series is a new high density non-isolated dc-dc converter. The converter has a wide input range (10.2 Vdc to 13.8 Vdc) and offers a -4.5 Vdc to -5.5 Vdc output voltage range with a 25 A load. The series offers remote ON/OFF, overtemperature protection and overcurrent protection as standard. The remote sense feature enables the SIL25C compensate for voltage drops between the converters output and the load. With full international safety approvals including EN60950 and UL/cUL60950 the SIL25C reduces compliance costs and time to market.



All specifications are typical at nominal input, full load at 25 °C ambient unless otherwise stated

SPECIFICATIONS

OUTPUT SPECIFICATIONS

Voltage adjustability	(See Note 1)	-4.5 Vdc to -5.5 Vdc
Output setpoint accuracy	Using 1.0% trim resistors	±3.0%
Line regulation	Low line to high line	±1.0% max.
Load regulation	Full load to min. load	±1.0% max.
Min./max. load		0 A/25 A
Ripple and noise	(See Note 2)	100 mV pk-pk 5 Hz to 20 MHz 50 mV rms
Transient response	Deviation	75 mV typ. (See Note 3) 150 µs recovery to within regulation band

INPUT SPECIFICATIONS

Input voltage range	Nominal 12 V	10.2-13.8 +Vdc
Input current	No load Remote OFF	400 mA 30 mA
Input current (max.)	(See Note 4)	14.2 A max. @ Io max. and Vin = 10.8 V
Input reflected ripple	(See Note 2)	300 mA (pk-pk)
Remote ON/OFF Logic compatibility		Logic high ON >2.4 Vdc OFF <1.2 Vdc
Start-up time	Power up (See Note 5) Remote ON/OFF	<10 ms <10 ms

INPUT SPECIFICATIONS (CONTD.)

Turn ON threshold	10 Vdc
Turn OFF threshold	9.5 Vdc

GENERAL SPECIFICATIONS

Efficiency	90%
Switching frequency	Fixed (2 phase) 250 kHz typ. per phase
Approvals and standards (pending)	(See Note 7) TÜV Product Services IEC60950, UL/cUL60950
Material flammability	UL94V-0
Weight	28.3 g (1 oz)
MTBF	Telcordia SR-332 3,000,000 hours

ENVIRONMENTAL SPECIFICATIONS

Thermal performance	Operating ambient, temperature	-40 °C to +80 °C
(See Note 8)	Non-operating	-40 °C to +125 °C

PROTECTION

Short-circuit	Hiccup, non-latching
Over-temperature	Hiccup, non-latching

RECOMMENDED SYSTEM CAPACITANCE

Input capacitance	(See Note 9)	3 x 270 µF
Output capacitance	(See Note 9)	3 x 680 µF

International Safety Standard Approvals (pending)



UL/cUL CAN/CSA 22.2 No. TBD
UL60950 File No. TBD



TÜV Product Service (EN60950) Certificate No. TBD
CB report and certificate to TBD

SIL25C Series

12 Vin single negative output

DC-DC CONVERTERS

C Class Non-isolated

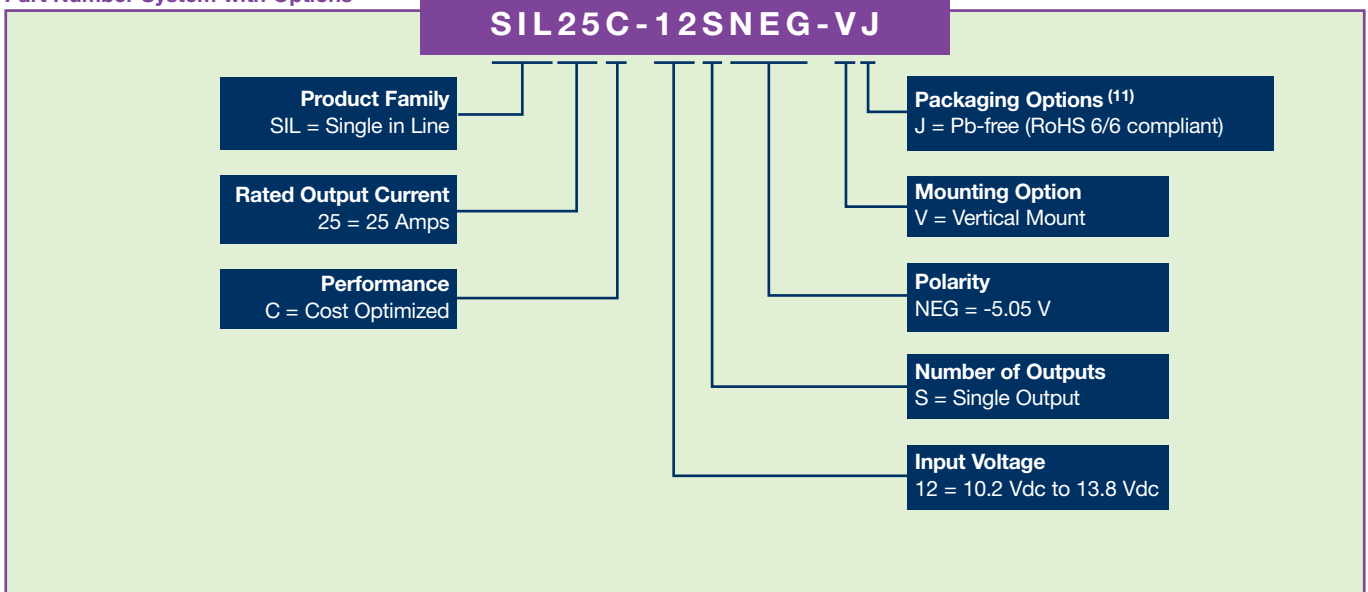
2

For the most current data and application support visit www.artesyn.com/powergroup/products.htm

NEW Product

OUTPUT POWER (MAX.)	INPUT VOLTAGE	OVP	OUTPUT VOLTAGE ⁽¹⁰⁾	OUTPUT CURRENT (MIN.)	OUTPUT CURRENT (MAX.)	EFFICIENCY (TYP.)	REGULATION		MODEL NUMBER ^(11,12)
							LINE	LOAD	
125 W	10.2-13.8 Vdc	N/A	-5.05 V	0 A	25 A	90%	±1.0%	±1.0%	SIL25C-12SNEG-VJ

Part Number System with Options

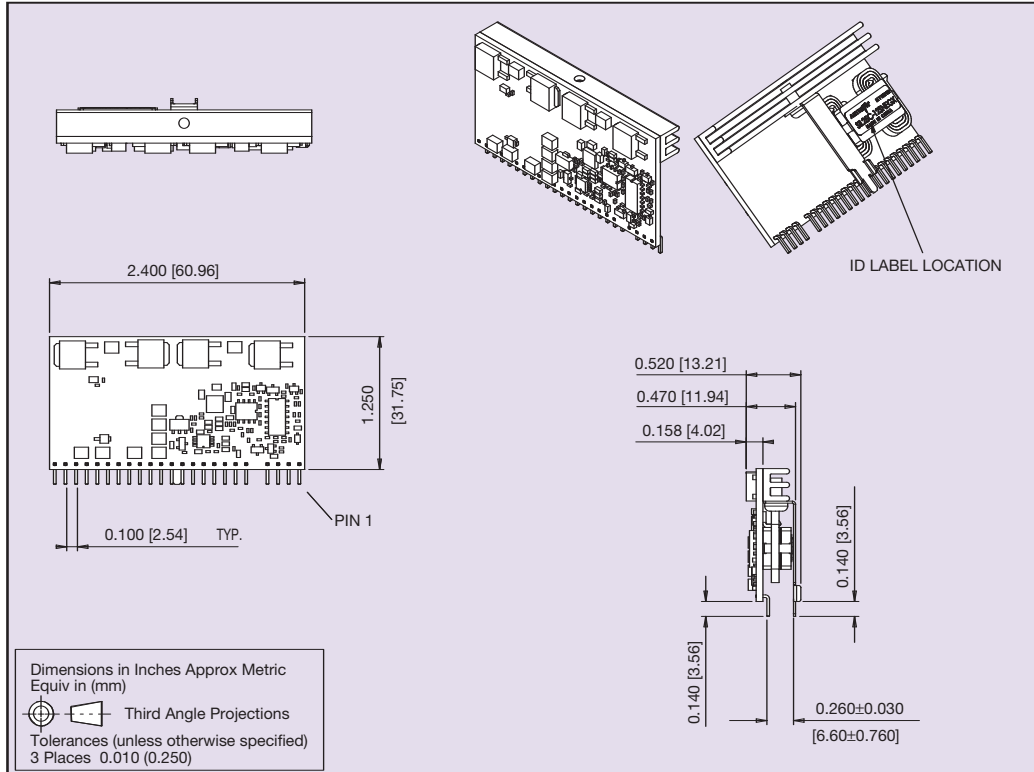


Notes

- 1 Uses external resistor. See Application Note 148 for details.
- 2 Measured with external filter. See Application Note 148 for details.
- 3 $di/dt = 1 \text{ A}/\mu\text{s}$, $V_{in} = \text{Nom}$, $T_c = 25 \text{ }^\circ\text{C}$, load change = 0.5 I_o max to 0.75 I_o max and 0.75 I_o max to 0.5 I_o max.
- 4 External input fusing is recommended.
- 5 Power up is the time from application of dc input to POWER GOOD high. Remote ON/OFF asserted high to POWER GOOD high.
- 6 Signal line assumed <3 m.
- 7 This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- 8 See Application Note 148 for operation above 50°C.
- 9 See Application Note 148 for ripple current requirements.
- 10 Output can be adjusted from -4.5 Vdc to -5.5 Vdc.
- 11 TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- 12 NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

SIL25C Series

12 Vin single negative output



PIN CONNECTIONS			
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	TRIM	13	Vin
2	Not Connected	14	Vin
3	Ground	15	Vout
4	Power Good	16	Vout
5	No Pin	17	Ground
6	Not Connected	18	Vout
7	Ground	19	Ground
8	Ground	20	Vout
9	Remote ON/OFF	21	Ground
10	Remote Sense (GND)	22	Vout
11	Remote Sense (V _o)	23	Ground
12	Vin	24	Vout

Mechanical Drawing and Pinout Table

Datasheet © Artesyn Technologies® 2005

The information and specifications contained in this datasheet are believed to be correct at time of publication. However, Artesyn Technologies accepts no responsibility for consequences arising from printing errors or inaccuracies. The information and specifications contained or described herein are subject to change in any manner at any time without notice. No rights under any patent accompany the sale of any such product(s) or information contained herein.

Please consult our website for the following items: ✓ Application Note ✓ Longform Datasheet

www.artesyn.com

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

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9