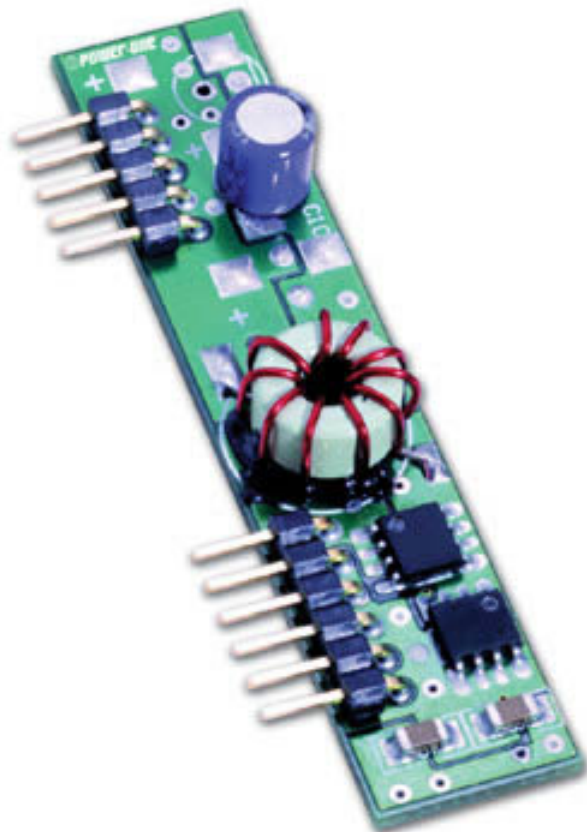


▶ 3A, 7A and 12A switching regulators

Power-One SIS series

- ▶ Thru-hole mount configuration
- ▶ Single outputs, 3A, 7A and 12A versions
- ▶ Efficiency in excess of 93%
- ▶ Output over-current protection
- ▶ Remote On/Off for system sequencing
- ▶ Output voltage trim



▶ SPECIFICATIONS

INPUT

Input voltage:	See product selector table
Turn-on input voltage:	4.3Vdc for 5Vdc nominal input 10.4Vdc for 12Vdc nominal input
Under voltage lockout:	4.19Vdc for 5Vdc nominal input 8.2Vdc for 12Vdc nominal input
Turn-on time:	15ms maximum into 100% resistive load
Inrush current:	0.04A ² s
External capacitor, required:	4.7μF for 3A versions 100μF for 7A and 12A versions

OUTPUT

Output setpoint accuracy:	±1.5% V _{out}
Line regulation:	1% V _{out}
Load regulation:	0.5% V _{out}
Total output regulation:	3% V _{out} , all load, input voltage and temperature conditions

Dynamic regulation:	50-25-50 lout load change Peak deviation: $\pm 50\text{mV}$ pk-pk Settling time: $30\mu\text{s}$ nominal
Admissible load capacitance:	1000 μF : 3A versions 2000 μF : 7A and 12A versions
Output current limit:	115 to 150% of lout
Switching frequency:	300kHz nominal, V series 200kHz nominal, X series
Temperature coefficient:	0.01%/ $^{\circ}\text{C}$
Trim range:	90 to 110% V_{out}
External capacitor required:	4.7 μF , 3A versions 100 μF , 7A versions 220 μF , 12A versions
On/Off control voltage:	5.5Vdc referenced to ground

ENVIRONMENTAL AND MECHANICAL

Operating temperature range:	-40* to +55 $^{\circ}\text{C}$ * A ceramic input capacitor for operation down to -40 $^{\circ}\text{C}$ of the following value is needed 4.7 μF : 3A versions 100 μF : 7A versions 220 μF : 12A versions
Storage temperature range:	-40 to +125 $^{\circ}\text{C}$
Shock 3-axis:	50g minimum, half-sine wave
Sinusoidal vibration:	1, GR-63-Core, section 5.A.2
MTBF:	5.4 million hours, per Bell core TR-NWT-000332
Size:	63.5 x 14.0 x 10.4mm vertical mounting 63.5 x 15.0 x 14.0mm horizontal mounting
Connections:	Pin outs All models

1	2	3	4	5	6
V_{out} +ve	V_{out} +ve	+sense	V_{out} +ve	common	common
7	8	9	10	11	
V_{in} +ve	V_{in} +ve	V_{in} +ve	trim	on/off	

▶ 3A product selector

Type	Input	Output	%	Product Code	Price
SIS03VE	4.5-5.5Vdc	3.3Vdc @ 3A	93	96037880	£16.26
SIS03VD	4.5-5.5Vdc	2.5Vdc @ 3A	91	96037881	£16.26
SIS03V2.1	4.5-5.5Vdc	2.1Vdc @ 3A	90	96037882	£16.26
SIS03VB	4.5-5.5Vdc	1.8Vdc @ 3A	88	96037883	£16.26
SIS03VA	4.5-5.5Vdc	1.5Vdc @ 3A	86	96037884	£16.26

SIS03VY	4.5-5.5Vdc	1.2Vdc @ 3A	84	96037885	£16.26
SIS03XE	10.8-13.21Vdc	3.3Vdc @ 3A	91	96037886	£16.26
SIS03XD	10.8-13.21Vdc	2.5Vdc @ 3A	90	96037887	£16.26
SIS03X2.1	10.8-13.21Vdc	2.1Vdc @ 3A	88	96037888	£16.26
SIS03XB	10.8-13.21Vdc	1.8Vdc @ 3A	86	96037889	£16.26
SIS03XA	10.8-13.21Vdc	1.5Vdc @ 3A	84	96037890	£16.26

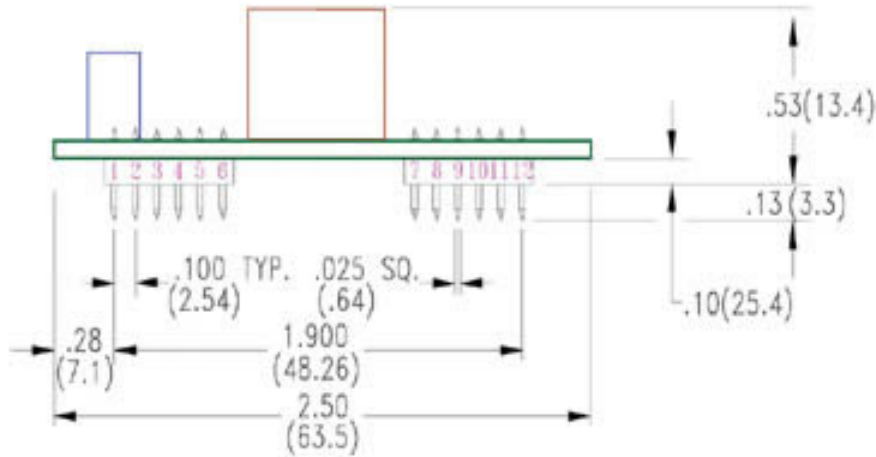
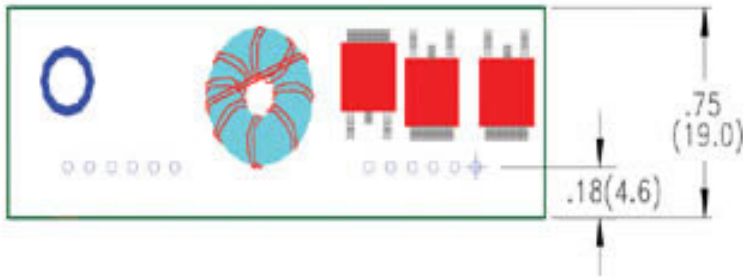
▶ 7A product selector

Type	Input	Output	%	Product Code	Price
SIS07VE	4.5-5.5Vdc	3.3Vdc @ 7A	91	96037891	£18.97
SIS07VD	4.5-5.5Vdc	2.5Vdc @ 7A	90	96037892	£18.97
SIS07V2.1	4.5-5.5Vdc	2.1Vdc @ 7A	89	96037893	£18.97
SIS07VB	4.5-5.5Vdc	1.8Vdc @ 7A	87	96037894	£18.97
SIS07VA	4.5-5.5Vdc	1.5Vdc @ 7A	85	96037895	£18.97
SIS07VY	4.5-5.5Vdc	1.2Vdc @ 7A	83	96037896	£18.97
SIS07XE	10.8-13.21Vdc	3.3Vdc @ 7A	90	96037897	£18.97
SIS07XD	10.8-13.21Vdc	2.5Vdc @ 7A	88	96037898	£18.97
SIS07X2.1	10.8-13.21Vdc	2.1Vdc @ 7A	86	96037899	£18.97
SIS07XB	10.8-13.21Vdc	1.5Vdc @ 7A	83	96037900	£18.97
SIS07XA	10.8-13.21Vdc	1.2Vdc @ 7A	80	96037901	£18.97

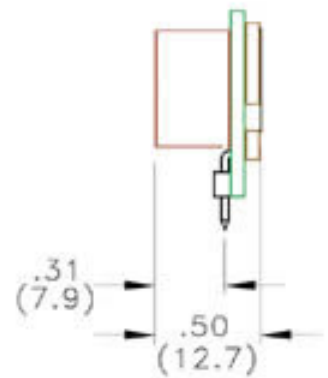
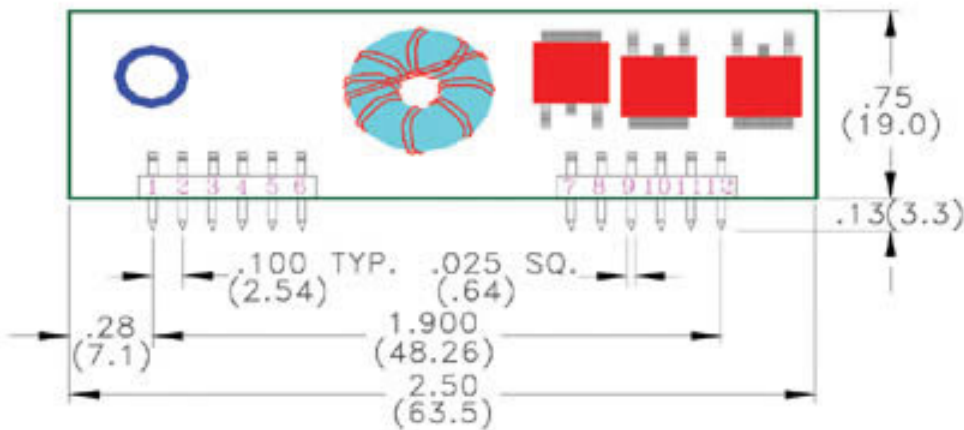
▶ 12A product selector

Type	Input	Output	%	Product Code	Price
SIS12VE	4.5-5.5Vdc	3.3Vdc @ 12A	91	96037902	£21.68
SIS12VD	4.5-5.5Vdc	2.5Vdc @ 12A	88	96037903	£21.68
SIS12V2.1	4.5-5.5Vdc	2.1Vdc @ 12A	86	96037904	£21.68
SIS12VB	4.5-5.5Vdc	1.8Vdc @ 12A	84	96037905	£21.68
SIS12VA	4.5-5.5Vdc	1.5Vdc @ 12A	80	96037906	£21.68
SIS12VY	4.5-5.5Vdc	1.2Vdc @ 12A	77	96037907	£21.68
SIS12XE	10.8-13.2Vdc	3.3Vdc @ 12A	88	96037908	£21.68
SIS12XD	10.8-13.2Vdc	2.5Vdc @ 12A	86	96037909	£21.68
SIS12X2.1	10.8-13.2Vdc	2.1Vdc @ 12A	84	96037910	£21.68
SIS12XB	10.8-13.2Vdc	1.8Vdc @ 12A	81	96037911	£21.68
SIS12XA	10.8-13.2Vdc	1.5Vdc @ 12A	78	96037912	£21.68

Mechanical Drawing *Dimensions shown in inches (millimeters)*



(a). Horizontal Mount Option



(b). Vertical Mount Standard



DATA SHEET

● **Sales 01273 570 220** ● **Help Lines 01273 608 331** ● **Fax 01273 570 215**

Centenary Industrial Estate, Hollingdean Road, Brighton, UK, BN2 4AW
website : www.amplicon.co.uk email : sales@amplicon.co.uk