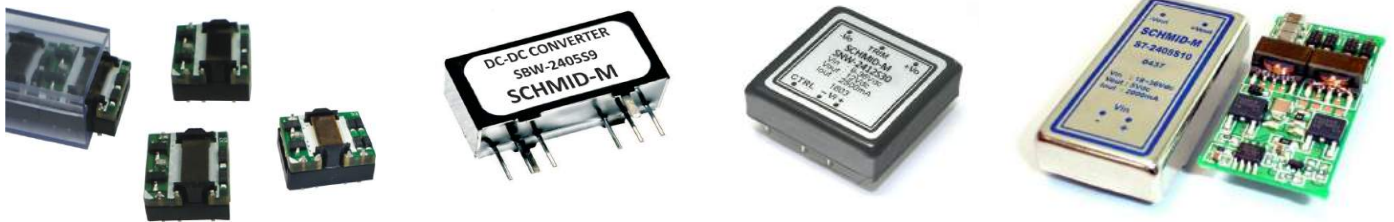


SCHMID-M

...since 1989



DC-DC Converter & AC-DC Converter PRODUCT Catalog



DC/DC Converter

page	Model Number	Watt	Case
3	SB XT-W2R2	0,25 Watt	SMD
4	SB XT-1WR3	1 Watt	SMD
5	T1-1W	1 Watt	SMD
6	SURB MT-3WR3	3 Watt	SMD
7	SA -1W	1 Watt	SIL4 & DIL8
8	S1 -1W	1 Watt	SIL7 & DIL14
9	SMB-1W	1 Watt	SIL6
10	SB-3W	3 Watt	SIL8
11	SBW-3W	3 Watt	SIL9
12	SB-6W	6 Watt	SIL8
13	SBW-6W	6 Watt	SIL8
14	SB-9W	9 Watt	SIL8
15	SBW-9W	9 Watt	SIL8
16	SD-10W	10 Watt	DIL24
17	SV-10W	10 Watt	DIL24
18	SN-15W	15 Watt	1x1
19	SNW-15W	15 Watt	1x1
20	ST-30W	30 Watt	2x1
21	STW-30W	30 Watt	2x1
22	ST-40W	40 Watt	2x1
23	SM40A	40 Watt	2x2
24	STW-50W	50 Watt	2x1
25	STW-60W	60 Watt	2x1
26	SURF24_QB-100W	100 Watt	61,8x40,x27,7
27	SURF48_QB-200W	200 Watt	61,8x40,x27,7
28	SLD300T	300 Watt	Full Brick
29	SLD400T	400 Watt	Full Brick

Non Isolated DC/DC Converter

page	Model Number	Watt	Case
30	SK78T-500R3	0,5A	SMD
31	SK78T-1000R3	1A	SMD
32	SK78-500R3	0,5A	SIP3
33	S01D-1A	1A	SIP3
34	S01D-2A	2A	SIP3
35	S01D-3A	3A	open frame

AC/DC Converter

page	Model Number	Watt	Case
36	SLS01	1W	open frame
37	SLS05	5W	open frame
38	SLD10	10W	DIP,chassis,DIN-RAIL
39	SLD20	20W	DIP,chassis,DIN-RAIL
40	SLH40	40W	DIP,chassis,DIN-RAIL
41	SLH60	60W	DIP,chassis,DIN-RAIL
42	SALR100	100W	127x88,9x17,2mm
43	SALR150	150W	127x88,9x17,2mm

SB_XT-W2R2 DC/DC Converter



FEATURES

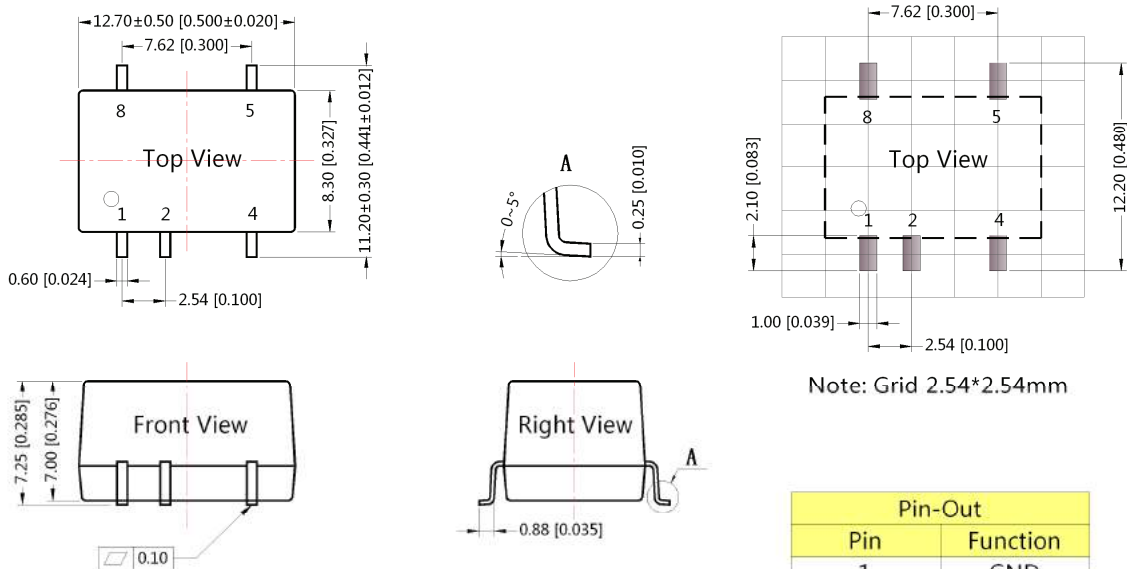
- Continuous short-circuit protection
- Operating temperature range: -40°C to +105°C
- High efficiency up to 79%
- Miniature SMD package
- Isolation: 1.5kVDC, 3kV available
- Ultra-Low ripple & noise
- International standard pin-out

MODEL SELECTION GUIDE

also available in dual output

Part No.	Input Voltage (VDC)	Output		Efficiency (%Min./Typ.) @ Full Load	Max. Capacitive Load (µF)
	Nominal (Range)	Output Voltage (VDC)	Output Current (mA)(Max./Min.)		
SB0305XT-W2R2	3.3 (2.97-3.63)	5	50/5	69/74	220
SB0503XT-W2R2	5 (4.5-5.5)	3.3	76/8	69/74	
SB0505XT-W2R2		5	50/5	72/77	
SB1205XT-W2R2	12 (10.8-13.2)	5	50/5	70/75	
SB1209XT-W2R2		9	28/3	74/79	
SB1212XT-W2R2		12	21/2	72/77	
SB2405XT-W2R2	24 (21.6-26.4)	5	50/5	64/69	

MECHANICAL SPECIFICATIONS



Pin-Out	
Pin	Function
1	GND
2	Vin
4	0V
5	+Vo
8	NC

Note:
Unit: mm[inch]
General tolerances: ±0.25[±0.010]

SB_XT-1WR3 DC/DC Converter



FEATURES

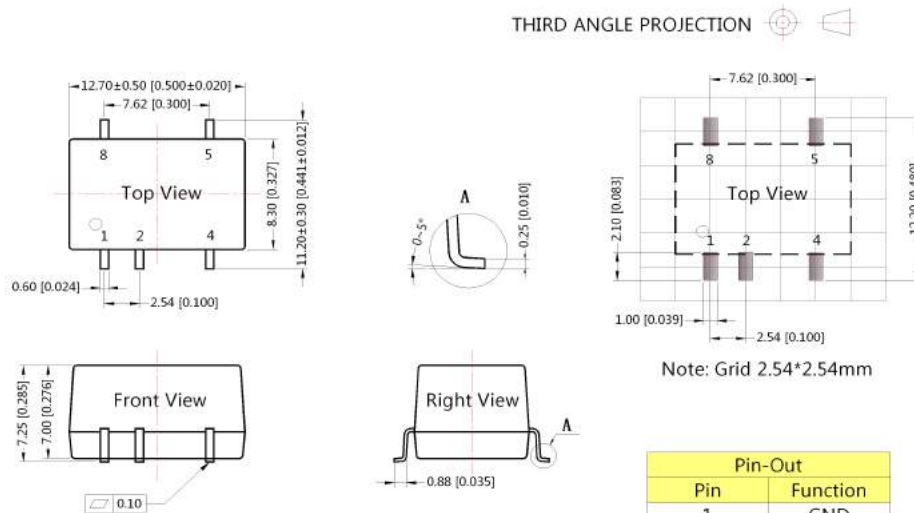
- Isolation: 1.5kV, 3kV available
- Operating temperature: -40°C to +105°C
- Miniature SMD package
- Internal surface mounted design
- No external component required
- International standard pin-out

MODEL SELECTION GUIDE

also available in dual output

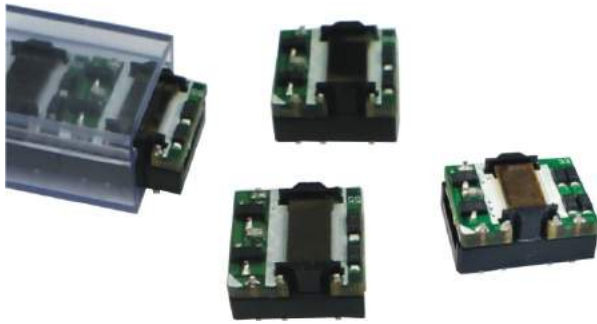
Part No.	Input Voltage (VDC)	Output		Efficiency (% Min./Typ.) @ Full Load	Max. Capacitive Load (µF)
	Nominal (Range)	Output Voltage (VDC)	Output Current (mA) (Max./Min.)		
SB0303XT-1WR2	3.3 (2.97-3.63)	3.3	303/30	68/72	220
SB0305XT-1WR2		5	200/20	70/74	
SB0312XT-1WR2		12	84/9	76/80	
SB0324XT-1WR2		24	42/4	76/80	
SB0503XT-1WR2	5 (4.5-5.5)	3.3	303/30	70/74	
SB0505XT-1WR2		5	200/20	76/80	
SB0509XT-1WR2		9	111/12	76/80	
SB0512XT-1WR2		12	84/9	76/80	
SB0524XT-1WR2		24	42/4	76/80	
SB1203XT-1WR2	12 (10.8-13.2)	3.3	303/30	70/74	
SB1205XT-1WR2		5	200/20	76/80	
SB1209XT-1WR2		9	111/12	76/80	
SB1212XT-1WR2		12	84/9	77/81	
SB1215XT-1WR2		15	67/7	77/81	
SB2405XT-1WR2	24 (21.6-26.4)	5	200/20	76/80	
SB2409XT-1WR2		9	111/12	76/80	
SB2412XT-1WR2		12	84/9	76/80	
SB2424XT-1WR2		24	42/4	77/81	

MECHANICAL SPECIFICATIONS



Note:
Unit: mm[inch]
Pin section tolerances: ±0.10[±0.004]
General tolerances: ±0.25[±0.010]

NC: No Connection



FEATURES

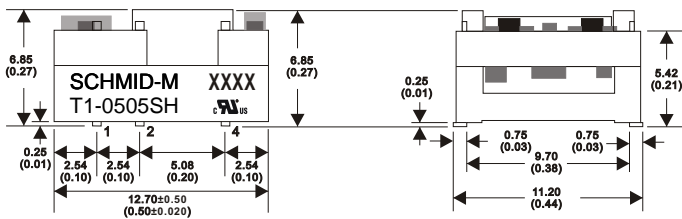
- SMD 8Pin / 10Pin Package
- 4200 VDC High Isolation
- Efficiency up to 78%
- -40 ~ 105°C Operation Temperature Range
- Rated working voltage for 250Vrms and 400Vdc
- Low coupling capacity
- Qualified for Lead-free Reflow Solder Process
- According to IPC/JEDEC J-STD-020D.1
- Tape & Reel Package Available

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (V dc)	INPUT Current		OUTPUT Voltage (V dc)	OUTPUT Current Full load (mA)	EFFICIENCY @FL (%; typ.)	Capacitor Load @FL (μF, max.)
		No-Load (mA, max.)	Full Load (mA, typ.)				
T1-0303SH	3.3 (2.97 ~ 3.63)	50	416	3.3	303	73	220
T1-0305SH	3.3 (2.97 ~ 3.63)	50	404	5	200	75	220
T1-0503SH	5 (4.5 ~ 5.5)	40	274	3.3	303	73	220
T1-0505SH	5 (4.5 ~ 5.5)	40	264	5	200	76	220
T1-0303SH-R	3.3 (2.97 ~ 3.63)	50	416	3.3	303	73	220
T1-0305SH-R	3.3 (2.97 ~ 3.63)	50	404	5	200	75	220
T1-0503SH-R	5 (4.5 ~ 5.5)	40	274	3.3	303	73	220
T1-0505SH-R	5 (4.5 ~ 5.5)	40	264	5	200	76	220
T1-0303DH	3.3 (2.97 ~ 3.63)	50	404	±3.3	±151	75	±100
T1-0305DH	3.3 (2.97 ~ 3.63)	50	389	±5	±100	78	±100
T1-0503DH	5 (4.5 ~ 5.5)	40	267	±3.3	±151	75	±100
T1-0505DH	5 (4.5 ~ 5.5)	40	257	±5	±100	78	±100
T1-0303DH-R	3.3 (2.97 ~ 3.63)	50	404	±3.3	±151	75	±100
T1-0305DH-R	3.3 (2.97 ~ 3.63)	50	389	±5	±100	78	±100
T1-0503DH-R	5 (4.5 ~ 5.5)	40	267	±3.3	±151	75	±100
T1-0505DH-R	5 (4.5 ~ 5.5)	40	257	±5	±100	78	±100

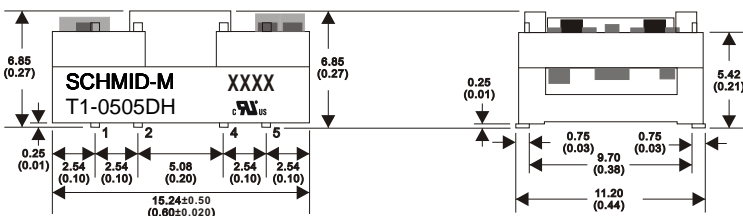
MECHANICAL SPECIFICATIONS

SMD 8Pin Package



PIN CONNECTIONS		
PIN NUMBER	SINGLE	
1	- V Input	
2	+V Input	
4	- V Output	
5	+V Output	
8	N.C	

SMD 10Pin Package



PIN CONNECTIONS		
PIN NUMBER	DUAL	
1	-V Input	
2	+V Input	
4	Common	
5	- V Output	
7	+V Output	
10	N.C	



FEATURES

- Ultra wide input voltage rang (4:1)
- High efficiency up to 84%
- No-load power consumption as low as 0.10W
- Isolation voltage:1.5K VDC
- Input Under-voltage Protection, output short-circuit protection , over-current protection
- Operating temperature range: -40°C to +85°C
- International standard pin-out
- IEC60950 , UL60950 , EN60950 approval

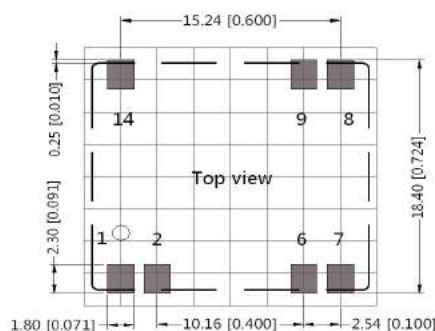
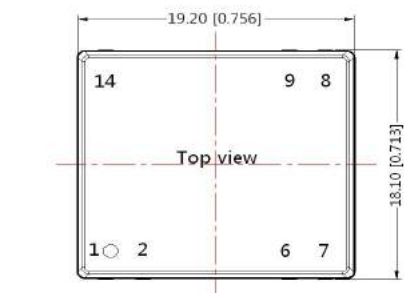
MODEL SELECTION GUIDE

Certification	Part No.	Input Voltage (VDC)		Output		Efficiency ^② (% Min./Typ.) @ Full Load	Max. Capacitive Load(μF)
		Nominal (Range)	Max. ^①	Output Voltage (VDC)	Output Current (mA) (Max./Min.)		
--	SURB2403MT-3WR3	24 (9-36)	40	3.3	728/0	73/75	2200
UL /CE/ CB	SURB2405MT-3WR3			5	600/0	78/80	2200
--	SURB2409MT-3WR3			9	333/0	78/80	1000
UL/ CE/ CB	SURB2412MT-3WR3			12	250/0	80/82	680
	SURB2415MT-3WR3			15	200/0	81/83	470
	SURB2424MT-3WR3			24	125/0	80/82	100
CE	SURB4803MT-3WR3	48 (18-75)	80	3.3	728/0	73/75	2200
	SURB4805MT-3WR3			5	600/0	77/79	2200
	SURB4812MT-3WR3			12	250/0	80/82	680
	SURB4815MT-3WR3			15	200/0	82/84	470
	SURB4824MT-3WR3			24	125/0	80/82	100

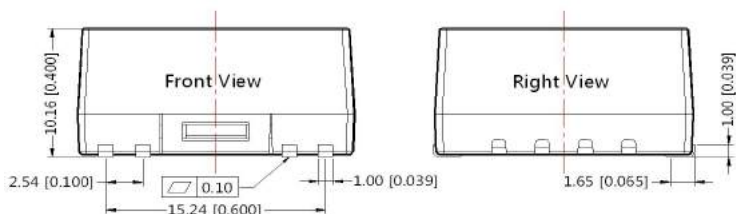
Notes:

- ①Exceeding the maximum input voltage may cause permanent damage;
 ②The efficiency value is measured in the input nominal voltage and output rated load.

THIRD ANGLE PROJECTION



Note: Grid 2.54*2.54mm



Note:
 Unit: mm[inch]
 Pin section tolerances: ±0.10[±0.004]
 General tolerances: ±0.50[±0.020]

Pin-Out	
Pin	Function
1	GND
2	Ctrl
6	NC
7	NC
8	+Vo
9	0V
14	Vin

NC: No Connection



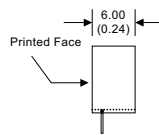
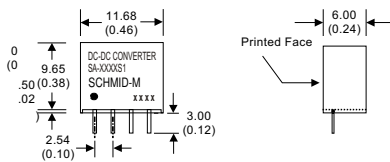
FEATURES

- 4 Pin SIL / 8 Pin DIL Package
- 1000 VDC Isolation
- Up to 3000 VDC Isolation
- Low Ripple and Noise
- Efficiency up to 83%
- -40 ~ 85°C Operation Temperature Range
- Non-Conductive Black Plastic Case
- EMI Complies With EN55022 Class B

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(μF)
		No-Load (mA)	Full Load (mA)		Full load (mA)			
SA-3R33R3S1	3.3	25	421	3.3	303	72	220	
SA-0505 S1	5	25	247	5	200	81	220	
SA-0509 S1	5	26	250	9	111	80	220	
SA-0512 S1	5	25	300	12	100	80	220	
SA-0515 S1	5	35	244	15	67	82	220	
SA-0524 S1	5	35	289	24	50	83	220	
SA-1205 S1	12	16	105	5	200	79	220	
SA-1209 S1	12	15	107	9	111	78	220	
SA-1212 S1	12	15	125	12	100	80	220	
SA-1215 S1	12	15	105	15	67	79	220	
SA-1218 S1	12	20	104	18	56	80	220	
SA-1224 S1	12	25	123	24	50	81	220	
SA-1505 S1	15	9	82	5	200	81	220	
SA-1509 S1	15	10	90	9	111	74	220	
SA-1512 S1	15	13	100	12	100	80	220	
SA-1515 S1	15	15	84	15	67	79	220	
SA-1524 S1	15	10	99	24	50	81	220	
SA-2405 S1	24	8	52	5	200	80	220	
SA-2409 S1	24	7	54	9	111	77	220	
SA-2412 S1	24	8	62	12	100	80	220	
SA-2415 S1	24	8	51	15	67	81	220	
SA-2424 S1	24	9	60	24	50	83	220	

MECHANICAL SPECIFICATIONS



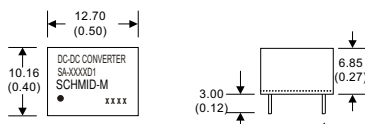
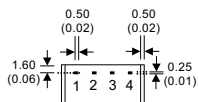
* The thickness of 48V input voltage model is 7.50(0.29)

4 Pin SIL Package

- Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)

PIN CONNECTIONS	
PIN NUMBER	SINGLE
1	-V Input
2	+V Input
3	-V Output
4	+V Output

(The Pin Connection of high isolation one is the same with normal one.)



8 Pin DIL Package

- Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)

PIN CONNECTIONS	
PIN NUMBER	SINGLE
1	-V Input
4	+V Input
5	+V Output
7	-V Output

(The Pin Connection of high isolation one is the same with normal one.)



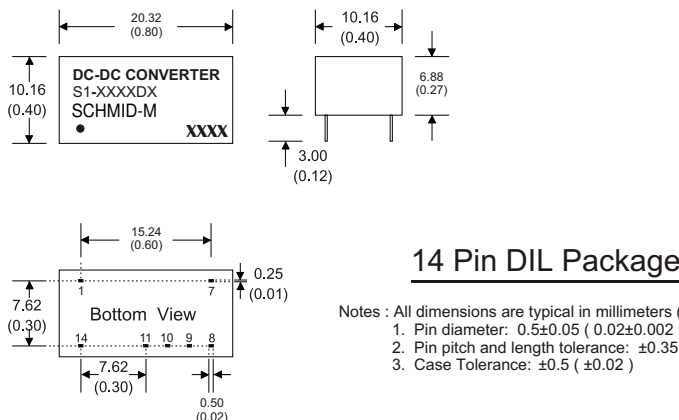
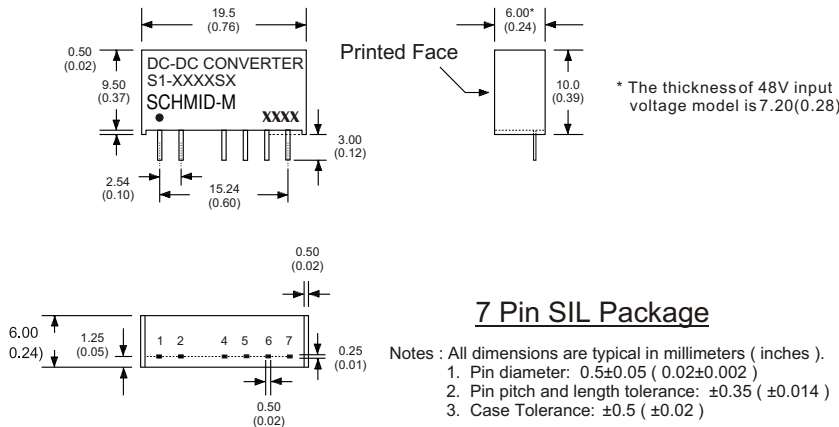
FEATURES

- 7 Pin SIL / 14 Pin DIL Package
- 1000 VDC Isolation
- Up to 6000 VDC Isolation
- Low Ripple and Noise
- Efficiency up to 86%
- -40 ~ 85°C Operation Temperature Range
- Non-Conductive Black Plastic Case
- EMI Complies With EN55022 Class B

MODEL SELECTION GUIDE *also available in dual output*

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(μF)
		No-Load (mA)	Full Load (mA)		Full load (mA)			
S1-0505S S	5	17	247	5	200	81	220	
S1-0509 SS	5	15	244	9	111	82	220	
S1-0512 SS	5	17	253	12	83	79	220	
S1-0515 SS	5	17	233	15	67	86	220	
S1-2405 SS	24	6	54	5	200	77	220	
S1-2412 SS	24	6	53	12	83	78	220	
S1-2415 SS	24	5	52	15	67	80	220	
S1-0512 S	5	20	250	±12	±42	80	±100	
S1-0515 S	5	20	244	±15	±33	82	±100	
S1-1515 S	15	20	87	±15	±33	77	±100	
S1-2405 S	24	6	56	±5.0	±100	74	±100	
S1-4805D	48	6	32	±5.0	±100	65	±100	
S1-4812D	48	6	29	±12	±42	71	±100	

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS				
PIN NUMBER	SINGLE	DUAL	SINGLE-H	DUAL-H
1	+V Input	+V Input	+V Input	+V Input
2	-V Input	-V Input	-V Input	-V Input
4	-V Output	-V Output	N.P.	N.P.
5	N.P.	Common	-V Output	-V Output
6	+V Output	+V Output	N.P.	Common
7	N.P.	N.P.	+V Output	+V Output

PIN CONNECTIONS				
PIN NUMBER	SINGLE	DUAL	SINGLE-H	DUAL-H
1	-V Input	-V Input	-V Input	-V Input
7	N.C.	N.C.	N.C.	N.C.
8	N.P.	Common	+V Output	+V Output
9	+V Output	+V Output	N.P.	Common
10	N.P.	N.P.	-V Output	-V Output
11	-V Output	-V Output	N.P.	N.P.
14	+V Input	+V Input	+V Input	+V Input



FEATURES

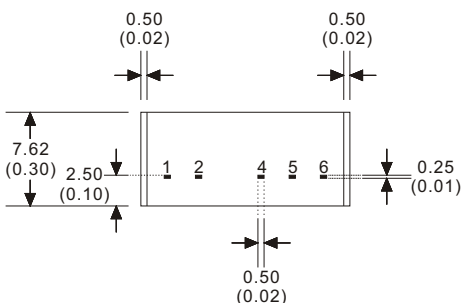
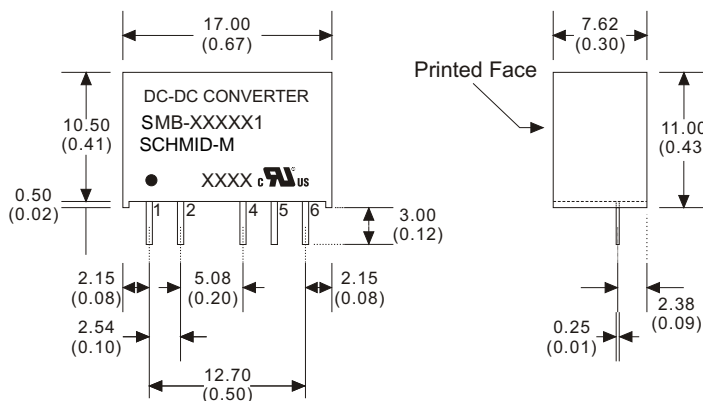
- 6 Pins SIL Package, Full SMD Technology Inside.
- Wide 2:1 Input Range
- 1500VDC Isolation
- Fully regulated output
- No minimum load required
- Continuous Short Circuit Protection
- Efficiency up to 81%
- Low Ripple and Noise
- 40°C ~ +85°C Operating Temperature Range

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL (%)	Capacitive Load (µF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SMB-0505S1	4.5-9	35	263	5	0	200	76	1680
SMB-0512S1	4.5-9	35	253	12	0	83	79	820
SMB-0515S1	4.5-9	35	250	15	0	67	80	680
SMB-0524S1	4.5-9	35	250	24	0	42	80	470
SMB-1205S1	9-18	20	107	5	0	200	78	1680
SMB-1212S1	9-18	20	105	12	0	83	80	820
SMB-1215S1	9-18	20	103	15	0	67	81	680
SMB-1224S1	9-18	20	105	24	0	42	80	470
SMB-2405S1	18-36	10	54	5	0	200	78	1680
SMB-2412S1	18-36	10	52	12	0	83	80	820
SMB-2415S1	18-36	10	52	15	0	67	80	680
SMB-2424S1	18-36	10	52	24	0	42	81	470
SMB-4805S1	36-75	7	28	5	0	200	76	1680
SMB-4812S1	36-75	7	27	12	0	83	78	820
SMB-4815S1	36-75	7	27	15	0	67	78	680
SMB-4824S1	36-75	7	27	24	0	42	77	470

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
4	+V Output	+V Output
5	N.P.	Common
6	-V Output	-V Output

6 Pin SIL Package

- Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Pin to case tolerance: ±0.5 (±0.02)
 4. Case Tolerance: ±0.5 (±0.02)
 5. Stand-off tolerance: ±0.1 (±0.004)



FEATURES

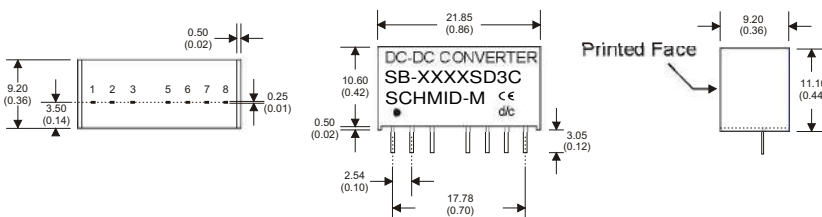
- 8 Pin SIL
- Wide 2:1 Input Range
- Full SMD Technology
- 1600 VDC Isolation
- Continuous Short Circuit Protection
- Efficiency up to 84%
- -40 ~ 71°C Operation Temperature Range
- Plastic Case Standard, Optional Metal Case
- Remote on/off Control (Optional)

MODEL SELECTION GUIDE

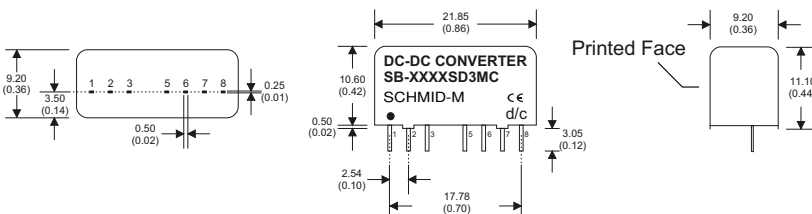
also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SB-053R3S3C	4.5-9	65	640	3.3	175	700	74	2200
SB-0505S3C	4.5-9	70	800	5	150	600	76	1000
SB-0512S3C	4.5-9	75	750	12	62.5	250	82	470
SB-0515S3C	4.5-9	75	750	15	50	200	82	220
SB-123R3S3C	9-18	25	260	3.3	175	700	76	2200
SB-1205S3C	9-18	15	320	5	150	600	81	1000
SB-1212S3C	9-18	35	305	12	62.5	250	84	470
SB-1215S3C	9-18	35	305	15	50	200	84	220
SB-243R3S3C	18-36	15	133	3.3	175	700	74	2200
SB-2405S3C	18-36	15	160	5	150	600	79	1000
SB-2412S3C	18-36	20	156	12	62.5	250	82	470
SB-2415S3C	18-36	20	152	15	50	200	84	220
SB-483R3S3C	36-72	10	66	3.3	175	700	75	2200
SB-4805S3C	36-72	10	82	5	150	600	78	1000
SB-4812S3C	36-72	15	78	12	62.5	250	81	470
SB-4815S3C	36-72	15	78	15	50	200	81	220

MECHANICAL SPECIFICATIONS



8 Pin SIL Package
Non-Conductive Plastic



8 Pin SIL Package
Nickel-Coated Copper

Notes : All dimensions are typical in millimeters (inches).
 1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
 2. Pin pitch tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)

PIN CONNECTIONS

PIN NUMBER	SINGLE+C	DUAL+C
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
5	N.C.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output

PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	N.P.	N.C.
5	N.P.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output



FEATURES

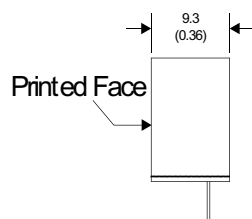
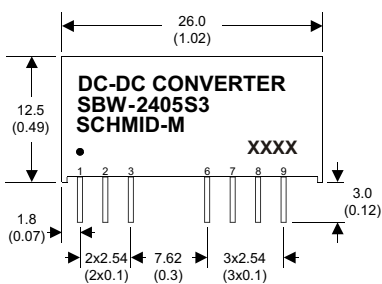
- 9 Pin SIL
- Wide 4:1 Input Range
- Full SMD Technology
- 1500 VDC Isolation
- Continuous Short Circuit Protection
- Efficiency up to 85%
- -40 ~ 75°C Operation Temperature Range
- Remote on/off Control

MODEL SELECTION GUIDE

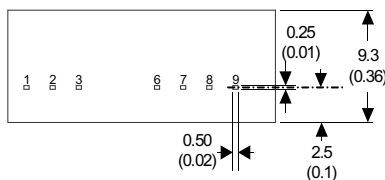
also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL (%)	Capacitor Load (uF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SBW-243R3S3	9-36	10	125	3.3	0	700	77	2200uF
SBW-2405S3	9-36	10	153	5	0	600	82	1000uF
SBW-2412S3	9-36	10	149	12	0	250	84	165uF
SBW-2415S3	9-36	10	148	15	0	200	85	100uF
SBW-483R3S3	18-75	5	65	3.3	0	700	75	2200uF
SBW-4805S3	18-75	5	78	5	0	600	81	1000uF
SBW-4812S3	18-75	5	75	12	0	250	84	165uF
SBW-4815S3	18-75	5	75	15	0	200	84	100uF
SBW-2405SD3	9-36	10	155	±5	0	±300	81	±470uF
SBW-2412SD3	9-36	10	149	±12	0	±125	84	±100uF
SBW-2415SD3	9-36	10	149	±15	0	±100	84	±47uF
SBW-4805SD3	18-75	5	78	±5	0	±300	81	±470uF
SBW-4812SD3	18-75	5	75	±12	0	±125	84	±100uF
SBW-4815SD3	18-75	5	76	±15	0	±100	83	±47uF

MECHANICAL SPECIFICATIONS



9 Pin SIL Package
Non-Conductive Plastic



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
6	+V Output	+V Output
7	N.C.	Common
8	N.C.	N.C.
9	-V Output	-V Output

Notes: All dimensions are typical in millimeters (inches).
 1. Pin diameter: 0.5 ±0.05 (0.02 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)



FEATURES

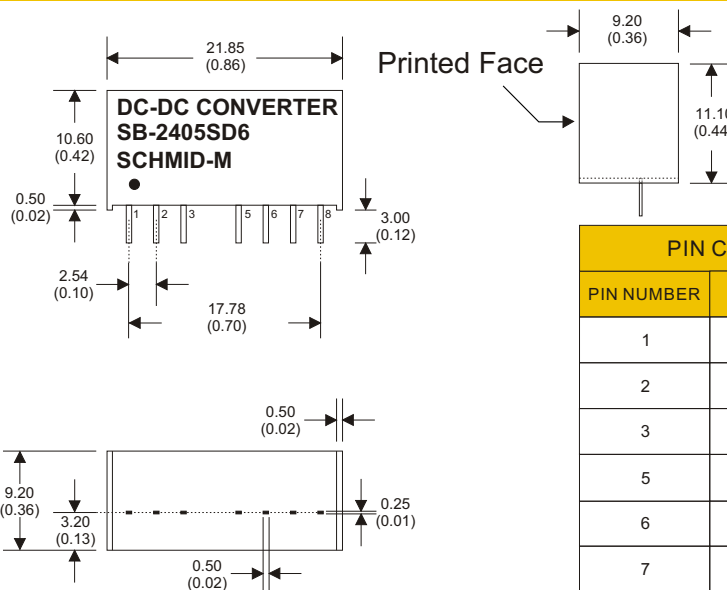
- Highest Power Density In 8 Pin SIL Package
- Wide 2:1 Input Range
- Smallest Footprint 6W Converter
- No Minimum Load Required
- 1500 VDC Isolation , Up to 3000VDC
- Continuous Short Circuit Protection
- Efficiency up to 86%
- -40°C ~+ 65°C Operation Temperature Range
- Remote on/off Control (Optional)

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SB-053R3S6	4.5-9	105	1114	3.3	0	1300	77	660uF
SB-0505S6	4.5-9	105	1481	5	0	1200	81	330uF
SB-0509S6	4.5-9	105	1445	9	0	666	83	2000uF
SB-0512S6	4.5-9	105	1428	12	0	500	84	1600uF
SB-0515S6	4.5-9	105	1428	15	0	400	84	1400uF
SB-0524S6	4.5-9	105	1428	24	0	250	84	680uF
SB-123R3S6	9-18	55	458	3.3	0	1300	78	660uF
SB-1205S6	9-18	55	602	5	0	1200	83	330uF
SB-1209S6	9-18	55	595	9	0	666	84	2000uF
SB-1212S6	9-18	55	588	12	0	500	85	1600uF
SB-1215S6	9-18	55	588	15	0	400	85	1400uF
SB-1224S6	9-18	55	595	24	0	250	84	680uF
SB-243R3S6	18-36	30	229	3.3	0	1300	78	660uF
SB-2405S6	18-36	30	301	5	0	1200	83	330uF
SB-2409S6	18-36	30	294	9	0	666	85	2000uF
SB-2412S6	18-36	30	294	12	0	500	85	1600uF
SB-2415S6	18-36	30	290	15	0	400	86	1400uF
SB-2424S6	18-36	30	294	24	0	250	85	680uF
SB-483R3S6	36-75	15	114	3.3	0	1300	78	660uF
SB-4805S6	36-75	15	152	5	0	1200	82	330uF
SB-4809S6	36-75	15	148	9	0	666	84	2000uF
SB-4812S6	36-75	15	147	12	0	500	85	1600uF
SB-4815S6	36-75	15	145	15	0	400	86	1400uF
SB-4824S6	36-75	15	148	24	0	250	84	680uF

MECHANICAL SPECIFICATIONS



8 Pin SIL Package

- Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Pin to case tolerance: ±0.5 (±0.02)
 4. Case Tolerance: ±0.5 (±0.02)
 5. Stand-off tolerance: ±0.1 (±0.004)

PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	N.P.	N.C.
5	N.P.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output

PIN CONNECTIONS		
PIN NUMBER	SINGLE + C	DUAL + C
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
5	N.C.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output



FEATURES

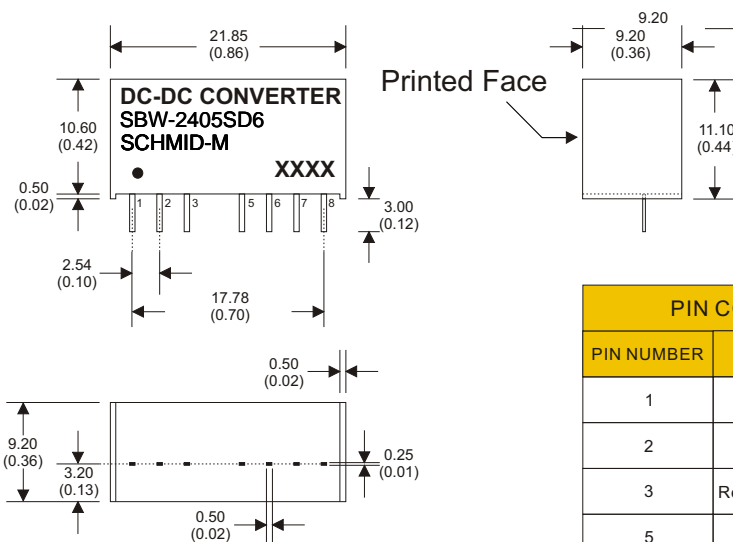
- Highest Power Density In 8 Pin SIL Package
- Wide 4:1 Input Range
- Smallest Footprint 6W Converter
- No Minimum Load Required
- 500 VDC Isolation , Up to 3000VDC (Optional)
- Continuous Short Circuit Protection
- Efficiency up to 88%
- -40°C ~+ 71°C Operation Temperature Range
- Remote on/off Control

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SBW-243R3S6	9-36	6	261	3.3	0	1500	79	4700uF
SBW-2405S6	9-36	6	298	5	0	1200	84	2200uF
SBW-2409S6	9-36	6	290	9	0	666	86	1000uF
SBW-2412S6	9-36	6	287	12	0	500	87	470uF
SBW-2415S6	9-36	6	287	15	0	400	87	220uF
SBW-2424S6	9-36	6	287	24	0	250	87	100uF
SBW-2405SD6	9-36	6	298	±5	0	±600	84	±330uF
SBW-2412SD6	9-36	6	291	±12	0	±250	86	±220uF
SBW-2415SD6	9-36	6	287	±15	0	±200	87	±100uF
SBW-483R3S6	18-75	6	131	3.3	0	1500	79	4700uF
SBW-4805S6	18-75	6	151	5	0	1200	83	2200uF
SBW-4809S6	18-75	6	147	9	0	666	85	1000uF
SBW-4812S6	18-75	6	144	12	0	500	87	470uF
SBW-4815S6	18-75	6	144	15	0	400	87	220uF
SBW-4824S6	18-75	6	144	24	0	250	87	100uF
SBW-4805SD6	18-75	6	152	±5	0	±600	82	±330uF
SBW-4812SD6	18-75	6	147	±12	0	±250	85	±220uF
SBW-4815SD6	18-75	6	145	±15	0	±200	86	±100uF

MECHANICAL SPECIFICATIONS



8 Pin SIL Package

- Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5±0.05 (0.02±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Pin to case tolerance: ±0.5 (±0.02)
 4. Case Tolerance: ±0.5 (±0.02)
 5. Stand-off tolerance: ±0.1 (±0.004)

PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
5	N.C.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output

PIN CONNECTIONS

PIN NUMBER	SINGLE + C	DUAL + C
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
5	N.P.	N.P.
6	+V Output	+V Output
7	-V Output	Common
8	N.C.	-V Output



FEATURES

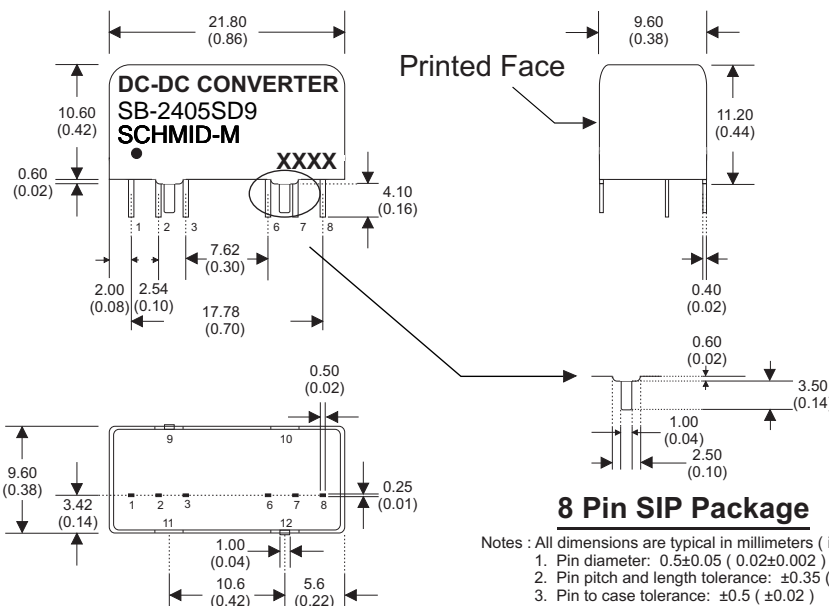
- Highest Power Density In 8 Pin SIP Package
- Wide 2:1 Input Voltage Range
- Smallest Footprint 9W Converter
- -40°C ~+ 85°C Operation Temperature Range
- Efficiency Up To 90%
- Indefinite Short-Circuit Protection
- I/O Isolation 1600VDC
- Remote On/Off Control
- Fully RoHS Compliant

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL (% , typ.)	Capacitor Load @FL (µF, max.)
		No-Load mA, max.)	Full Load (mA, typ.)		Min. load (mA)	Full load (mA)		
SB-123R3S9	9-18,12V Nom.	15	679	3.3	0	2000	81	2600
SB-1205S9	9-18,12V Nom.	15	784	5	0	1600	85	1300
SB-1209S9	9-18,12V Nom.	15	862	9	0	1000	87	800
SB-1212S9	9-18,12V Nom.	15	852	12	0	750	88	560
SB-1215S9	9-18,12V Nom.	15	843	15	0	600	89	470
SB-1224S9	9-18,12V Nom.	15	843	24	0	375	89	200
SB-243R3S9	18-36,24V Nom.	15	344	3.3	0	2000	80	2600
SB-2405S9	18-36,24V Nom.	15	392	5	0	1600	85	1300
SB-2409S9	18-36,24V Nom.	15	426	9	0	1000	88	800
SB-2412S9	18-36,24V Nom.	15	421	12	0	750	89	560
SB-2415S9	18-36,24V Nom.	15	417	15	0	600	90	470
SB-2424S9	18-36,24V Nom.	15	417	24	0	375	90	200
SB-483R3S9	36-75,48V Nom.	10	168	3.3	0	2000	82	2600
SB-4805S9	36-75,48V Nom.	10	196	5	0	1600	85	1300
SB-4809S9	36-75,48V Nom.	10	213	9	0	1000	88	800
SB-4812S9	36-75,48V Nom.	10	211	12	0	750	89	560
SB-4815S9	36-75,48V Nom.	10	211	15	0	600	89	470
SB-4824S9	36-75,48V Nom.	10	211	24	0	375	89	200

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
6	+V Output	+V Output
7	-V Output	Common
8	N.C	-V Output
9	Case	Case
10	Stand Off	Stand Off
11	Stand Off	Stand Off
12	Case	Case



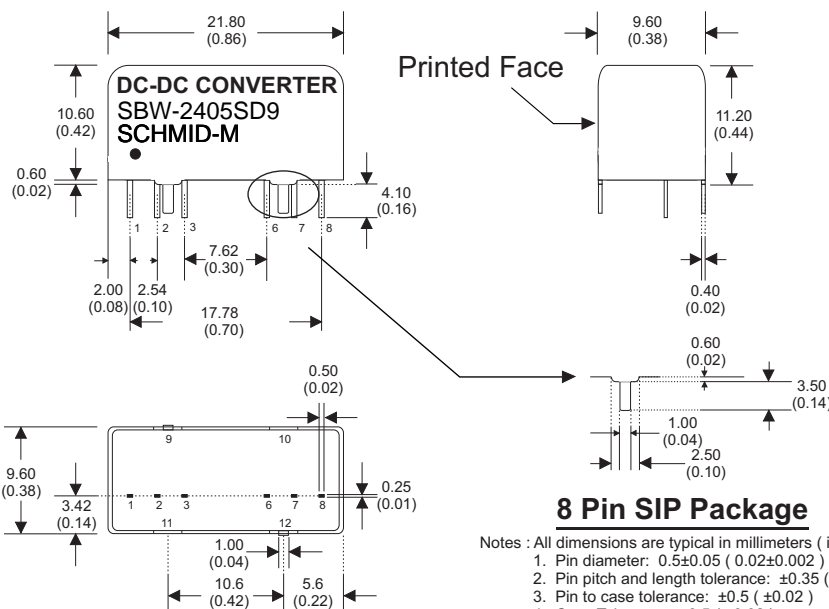
FEATURES

- Highest Power Density In 8 Pin SIP Package
- Wide 4:1 Input Voltage Range
- Smallest Footprint 9W Converter
- -40°C ~+ 85°C Operation Temperature Range
- Efficiency Up To 89%
- Indefinite Short-Circuit Protection
- I/O Isolation 1600VDC
- Remote On/Off Control
- Fully RoHS Compliant

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL (% , typ.)	Capacitor Load @FL (µF, max.)
		No-Load (mA, max.)	Full Load (mA, typ.)		Min. load (mA)	Full load (mA)		
SBW-243R3S9	9-36	9	335	3.3	0	2000	82	2600
SBW-2405S9	9-36	9	392	5	0	1600	85	1300
SBW-2409S9	9-36	9	426	9	0	1000	88	800
SBW-2412S9	9-36	9	426	12	0	750	88	560
SBW-2415S9	9-36	9	421	15	0	600	89	560
SBW-2424S9	9-36	9	421	24	0	375	89	200
SBW-2405SD9	9-36	9	392	±5	0	±800	85	±800
SBW-2412SD9	9-36	9	426	±12	0	±375	88	±390
SBW-2415SD9	9-36	9	431	±15	0	±300	87	±200
SBW-483R3S9	18-75	5	168	3.3	0	2000	82	2600
SBW-4805S9	18-75	5	196	5	0	1600	85	1300
SBW-4809S9	18-75	5	216	9	0	1000	87	800
SBW-4812S9	18-75	5	213	12	0	750	88	560
SBW-4815S9	18-75	5	211	15	0	600	89	560
SBW-4824S9	18-75	5	211	24	0	375	89	200
SBW-4805SD9	18-75	5	196	±5	0	±800	85	±800
SBW-4812SD9	18-75	5	216	±12	0	±375	87	±390
SBW-4815SD9	18-75	5	216	±15	0	±300	87	±200

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
6	+V Output	+V Output
7	-V Output	Common
8	N.C	-V Output
9	Case	Case
10	Stand Off	Stand Off
11	Stand Off	Stand Off
12	Case	Case



FEATURES

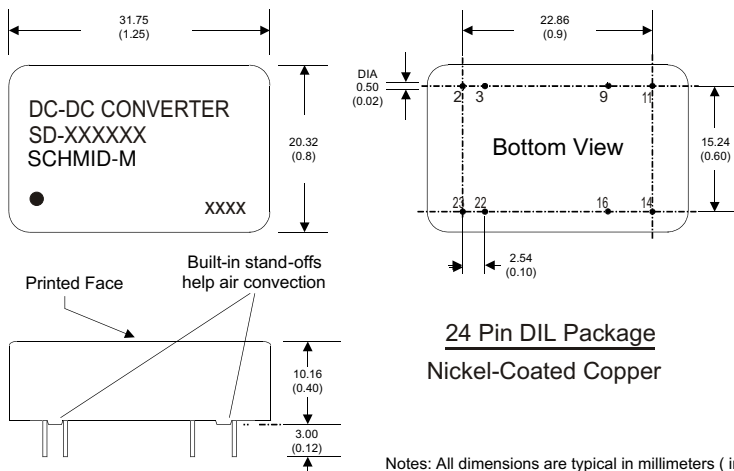
- Wide 2:1 Input Range
- Full SMD Technology
- 1500 VDC Isolation
- Efficiency up to 90%
- -40 ~ 85 °C Operation Temperature Range
- Continuous Short Circuit Protection
- Over Voltage Protection
- Low no load Input Current
- Soft Start
- High Power Density: 10W in DIL-24 Package

MODEL SELECTION GUIDE

also available in dual output

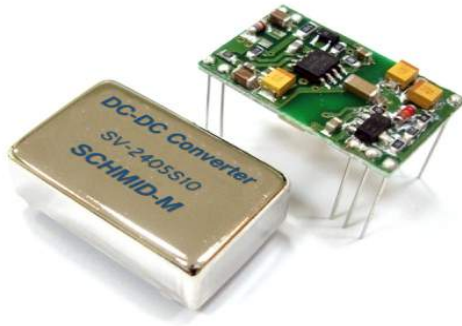
MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(µF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SD-122R5S10	9-18	10	791	2.5	0	3000	81	2200
SD-123R3S10	9-18	10	1006	3.3	0	3000	84	2200
SD-1205S10	9-18	10	992	5	0	2000	86	2200
SD-1212S10	9-18	10	980	12	0	833	87	820
SD-1215S10	9-18	10	958	15	0	667	89	470
SD-1212D10	9-18	10	980	±12	0	±416	87	±220
SD-1215D10	9-18	10	969	±15	0	±333	88	±150
SD-242R5S10	18-36	10	381	2.5	0	3000	84	2200
SD-243R3S10	18-36	10	497	3.3	0	3000	85	2200
SD-2405S10	18-36	10	479	5	0	2000	89	2200
SD-2412S10	18-36	10	485	12	0	833	88	820
SD-2415S10	18-36	10	485	15	0	667	88	470
SD-2412D10	18-36	10	485	±12	0	±416	88	±220
SD-2415D10	18-36	10	474	±15	0	±333	90	±150
SD-482R5S10	36-75	10	191	2.5	0	3000	84	2200
SD-483R3S10	36-75	10	249	3.3	0	3000	85	2200
SD-4805S10	36-75	10	242	5	0	2000	88	2200

MECHANICAL SPECIFICATIONS



Notes: All dimensions are typical in millimeters (inches).
 1. Pin diameter: 0.5 ±0.05 (0.02 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)

PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
2	-V Input	-V Input
3	-V Input	-V Input
9	N.P.	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input



FEATURES

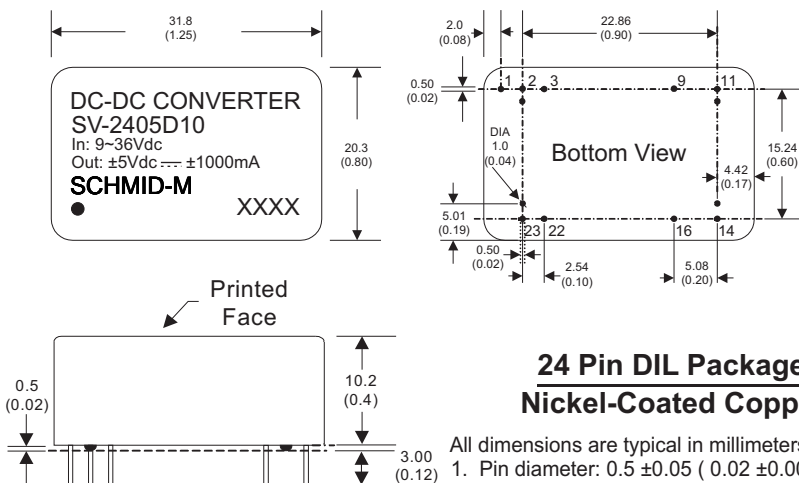
- Wide 4:1 Input Range
- Full SMD Technology
- 1600 VDC Isolation
- Efficiency up to 88%
- -40 ~ 85 °C Operation Temperature Range
- No Minimum Load Required
- Continuous Short Circuit Protection
- Over Voltage Protection
- Over Load Protection
- Low no load Input Current
- Soft Start
- High Power Density: 10W in DIL-24 Package
- Remote On/Off

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(µF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SV-243R3S10	9-36	15	440	3.3	0	2700	85	1330
SV-2405S10	9-36	15	480	5	0	2000	87	1330
SV-2412S10	9-36	15	475	12	0	833	88	288
SV-2415S10	9-36	15	475	15	0	667	88	200
SV-2405D10	9-36	15	495	5	0	1000	85	900
SV-2412D10	9-36	15	480	12	0	417	87	133
SV-2415D10	9-36	15	480	15	0	330	87	90
SV-483R3S10	18-75	15	225	3.3	0	2700	84	1330
SV-4805S10	18-75	15	240	5	0	2000	87	1330
SV-4812S10	18-75	15	240	12	0	833	87	288
SV-4815S10	18-75	15	240	15	0	667	87	200
SV-4805D10	18-75	15	250	5	0	1000	85	900
SV-4812D10	18-75	15	240	12	0	417	88	133
SV-4815D10	18-75	15	240	15	0	330	88	90

MECHANICAL SPECIFICATIONS



24 Pin DIL Package Nickel-Coated Copper

- All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5 ±0.05 (0.02 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)
 4. Stand-off tolerance: ±0.1 (±0.004)

PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	Remote On/Off	Remote On/Off
2	-V Input	-V Input
3	-V Input	-V Input
9	N.P.	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input



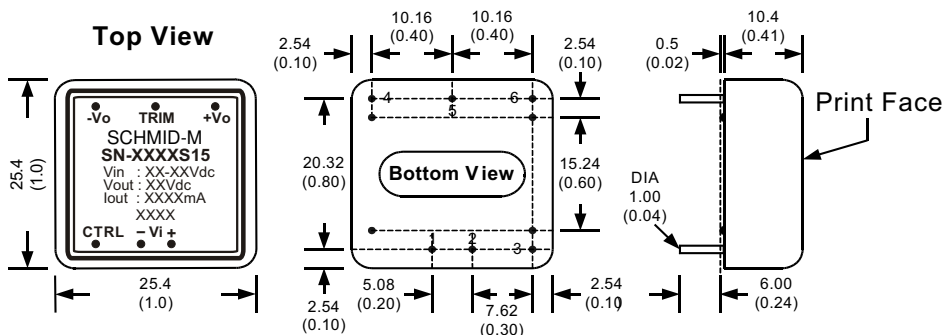
FEATURES

- Wide 2:1 Input Range
- Full SMD Technology
- Soft Start
- No Minimum Load Required
- Efficiency up to 89%
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Over Current Protection
- Over Voltage Protection
- 1600 VDC Isolation
- Operating Temperature Range -40 ~ 85°C max.

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(μF)
		No-Load (mA)	Full Load (mA)		Nin. load (mA)	Full load (mA)		
SN-123R3S15	9-18	20	1310	3.3	0	4000	85	1000
SN-1205S15	9-18	20	1471	5	0	3000	86	1000
SN-1212S15	9-18	20	1494	12	0	1300	88	330
SN-1215S15	9-18	20	1420	15	0	1000	89	220
SN-243R3S15	18-36	15	647	3.3	0	4000	86	1000
SN-2405S15	18-36	15	727	5	0	3000	87	1000
SN-2412S15	18-36	15	747	12	0	1300	88	330
SN-2415S15	18-36	15	710	15	0	1000	89	220
SN-483R3S15	36-75	10	327	3.3	0	4000	85	1000
SN-4805S15	36-75	10	368	5	0	3000	86	1000
SN-4812S15	36-75	10	374	12	0	1300	88	330
SN-4815S15	36-75	10	359	15	0	1000	88	220
SN-1205D15	9-18	20	1488	±5	0	±1500	85	±470
SN-1212D15	9-18	20	1420	±12	0	±625	89	±220
SN-1215D15	9-18	20	1437	±15	0	±500	89	±100
SN-2405D15	18-36	15	744	±5	0	±1500	85	±470
SN-2412D15	18-36	15	718	±12	0	±625	88	±220
SN-2415D15	18-36	15	710	±15	0	±500	89	±100
SN-4805D15	36-75	10	377	±5	0	±1500	84	±470
SN-4812D15	36-75	10	363	±12	0	±625	87	±220
SN-4815D15	36-75	10	359	±15	0	±500	88	±100

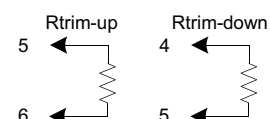
MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	+Vout	+Vout
5	Trim	Com
6	-Vout	-Vout

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. (single output models only)



All dimensions are typical in millimeters (inches).

1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
2. Pin pitch and length tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)
4. Stand-off tolerance: ±0.1 (±0.004)



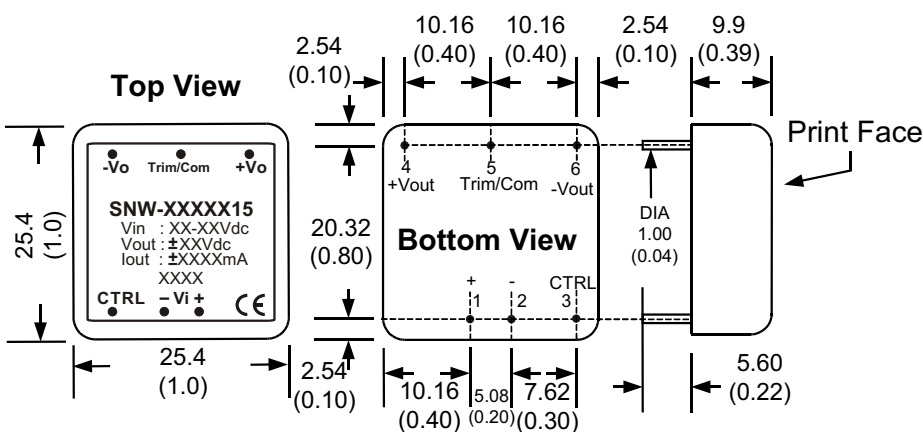
FEATURES

- Ultra Wide 4:1 Input Range
- Soft Start
- 1600 VDC Isolation
- Efficiency up to 89%
- Extended Operating Temperature Range -40 ~ 85°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Over Current Protection
- Over Voltage Protection
- No Minimum Load Required
- 50% Volume than traditional products

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(μF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SNW-243R3S15	9-36	15	647	3.3	0	4000	86	1000
SNW-2405S15	9-36	15	727	5	0	3000	87	1000
SNW-2412S15	9-36	15	747	12	0	1300	88	330
SNW-2415S15	9-36	15	710	15	0	1000	89	220
SNW-483R3S15	18-75	10	331	3.3	0	4000	84	1000
SNW-4805S15	18-75	10	368	5	0	3000	86	1000
SNW-4812S15	18-75	10	378	12	0	1300	87	330
SNW-4815S15	18-75	10	360	15	0	1000	88	220
SNW-2405D15	9-36	15	744	±5	0	±1500	85	±470
SNW-2412D15	9-36	15	718	±12	0	±625	88	±220
SNW-2415D15	9-36	15	710	±15	0	±500	89	±100
SNW-4805D15	18-75	10	376	±5	0	±1500	84	±470
SNW-4812D15	18-75	10	363	±12	0	±625	87	±220
SNW-4815D15	18-75	10	359	±15	0	±500	88	±100

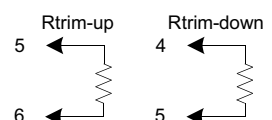
MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	+Vout	+Vout
5	Trim	Com
6	-Vout	-Vout

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. (single output models only)



All dimensions are typical in millimeters (inches).

1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
2. Pin pitch tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)



Features

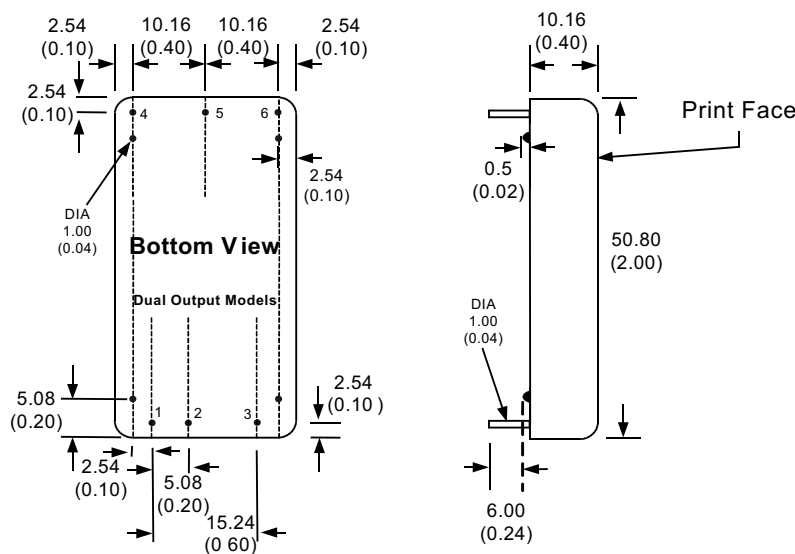
- Ultra Wide 2:1 Input Range
- Full SMD Technology
- 1600 VDC Isolation
- Efficiency up to 92%
- Extended Operating Temperature Range -40 ~ 75°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Current Protection
- Over Voltage Protection
- Over Temperature Protection
- Soft Start
- Optional Heat-sink

MODEL SELECTION GUIDE

also available in dual output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(μF)
		No-Load (mA)	Full Load (mA)		Min-Load (mA)	Full Load (mA)		
ST-123R3S30	9-18	80	2426	3.3	0	8000	89	20000
ST-1205S30	9-18	180	2874	5	0	6000	91	14000
ST-125R1S30	9-18	160	2874	5.1	0	6000	92	14000
ST-1212S30	9-18	30	2809	12	0	2500	91	2000
ST-1215S30	9-18	30	2809	15	0	2000	92	2000
ST-243R3S30	18-36	70	1185	3.3	0	8000	91	20000
ST-2405S30	18-36	100	1420	5	0	6000	92	14000
ST-245R1S30	18-36	100	1448	5.1	0	6000	92	14000
ST-2412S30	18-36	20	1436	12	0	2500	92	2000
ST-2415S30	18-36	40	1420	15	0	2000	92	2000
ST-483R3S30	36-75	50	593	3.3	0	8000	90	20000
ST-4805S30	36-75	70	702	5	0	6000	91	14000
ST-485R1S30	36-75	70	724	5.1	0	6000	91	14000
ST-4812S30	36-75	30	718	12	0	2500	91	2000
ST-4815S30	36-75	30	710	15	0	2000	91	2000

MECHANICAL SPECIFICATIONS



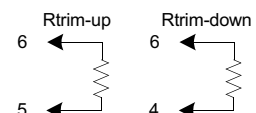
- All dimensions are typical in millimeters (inches).
1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)
 4. Stand-off Tolerance: ±0.1 (±0.004)

PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	+Vout	+Vout
5	-Vout	Com
6	Trim	-Vout

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. (single output models only)





Features

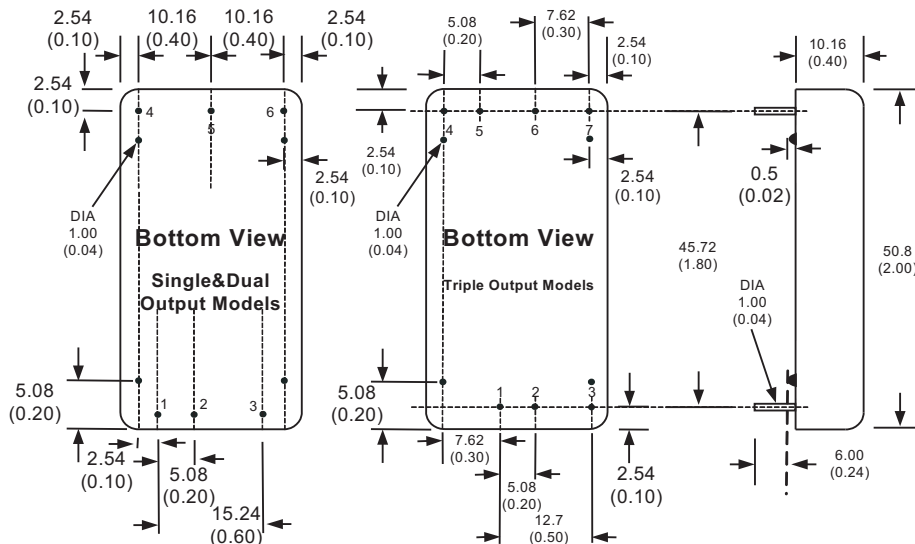
- Ultra Wide 4:1 Input Range
- Full SMD Technology
- 1600 VDC Isolation
- Efficiency up to 91%
- Extended Operating Temperature Range -40 ~ 75°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Current Protection
- Over Voltage Protection
- Over Temperature Protection
- Soft Start
- Optional Heat-sink

MODEL SELECTION GUIDE

also available in dual output & triple output

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Auxiliary (Vdc)	OUTPUT Current		EFFICIENCY @FL (% , typ.)	Capacitor Load @FL (µF, max.)
		No-Load (mA, max.)	Full Load (mA, typ.)			Min. load (mA)	Full load (mA)		
STW-243R3S30	9-36	100	1199	3.3		0	7500	89	20000
STW-2405S30	9-36	100	1437	5		0	6000	90	14000
STW-245R1S30	9-36	100	1465	5.1		0	6000	90	14000
STW-2412S30	9-36	50	1453	12		0	2500	89	2000
STW-2415S30	9-36	50	1453	15		0	2000	89	2000
STW-483R3S30	18-75	100	599	3.3		0	7500	89	20000
STW-4805S30	18-75	100	718	5		0	6000	90	14000
STW-485R1S30	18-75	100	732	5.1		0	6000	90	14000
STW-4812S30	18-75	50	718	12		0	2500	90	2000
STW-4815S30	18-75	50	710	15		0	2000	91	2000

MECHANICAL SPECIFICATIONS

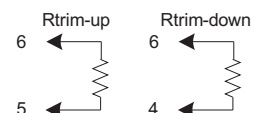


PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL	Triple
1	+Vin	+Vin	+Vin
2	-Vin	-Vin	-Vin
3	CTRL	CTRL	CTRL
4	+Vout	+Vout	+Aux
5	-Vout	Com	-Aux
6	Trim	-Vout	Com
7	No pin	No pin	+Vout

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. (single output models only)



All dimensions are typical in millimeters (inches).

1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
2. Pin pitch and length tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)
4. Stand-off tolerance: ±0.1 (±0.004)



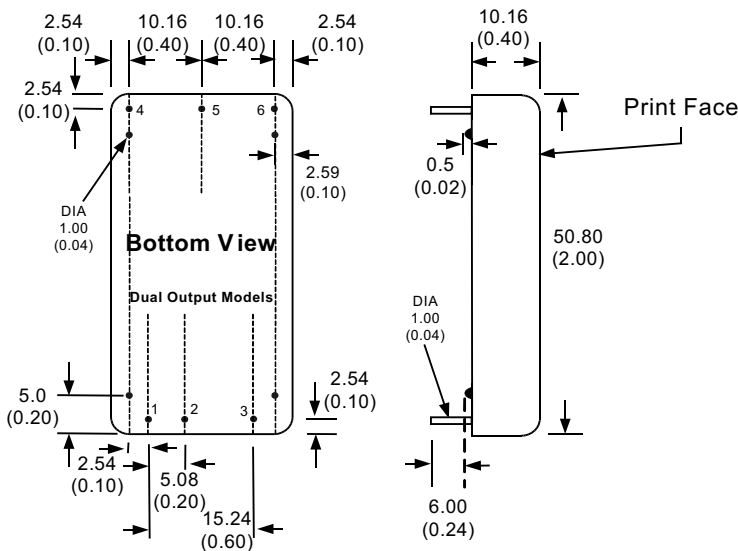
Features

- Wide 2:1 Input Range
- 1600 VDC Isolation
- Efficiency up to 92%
- Extended Operating Temperature: -40 ~ 71°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Load Protection
- Over Voltage Protection
- Soft Start
- High Power Density: 40W in 2"x1"x0.4" package
- No Minimum Load Required

MODEL SELECTION GUIDE

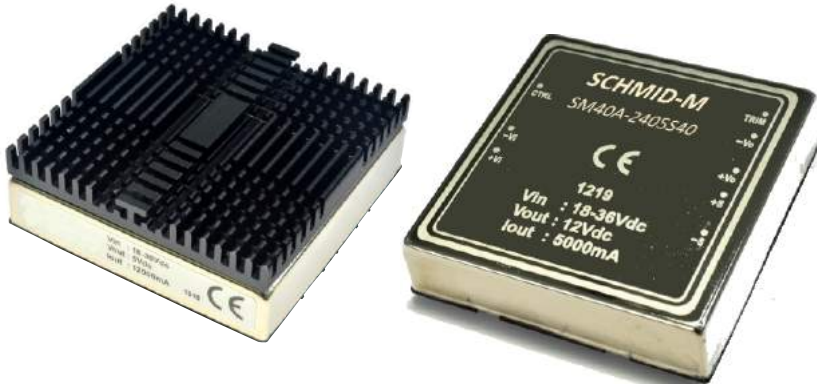
MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Min-Load (mA)	Full Load (mA)		
ST-123R3S40	9-18	100	2444	3.3	0	8000	90	21800
ST-1205S40	9-18	160	3663	5	0	8000	91	13600
ST-1212S40	9-18	40	3663	12	0	3333	91	2300
ST-1215S40	9-18	50	3663	15	0	2666	91	1500
ST-243R3S40	18-36	60	1208	3.3	0	8000	91	21800
ST-2405S40	18-36	90	1811	5	0	8000	92	13600
ST-2412S40	18-36	30	1831	12	0	3333	91	2300
ST-2415S40	18-36	40	1811	15	0	2666	92	1500
ST-483R3S40	36-75	40	604	3.3	0	8000	91	21800
ST-4805S40	36-75	60	905	5	0	8000	92	13600
ST-4812S40	36-75	20	915	12	0	3333	91	2300
ST-4815S40	36-75	20	905	15	0	2666	92	1500
ST-1212D40	9-18	50	3663	±12	0	±1666	91	±1200
ST-4815D40	36-75	40	906	±15	0	±1333	92	±750

MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	+Vout	+Vout
5	-Vout	Com
6	Trim	-Vout

- All dimensions are typical in millimeters (inches).
1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)
 4. Stand-off Tolerance: ±0.1 (±0.004)



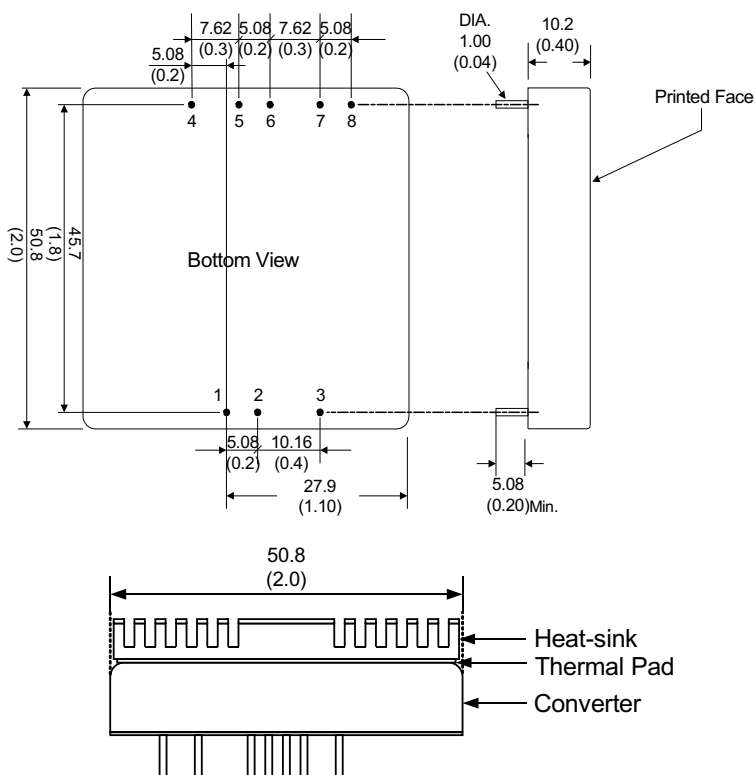
Features

- Wide 4:1 Input Range
- Full SMD Technology
- 1600 VDC Isolation
- Efficiency up to 92%
- -40 ~ 85°C Operation Temperature Range
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Current Protection
- Over Voltage Protection
- Over Temperature Protection
- Soft Start

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL(%)	Capacitor Load(uF)
		No-Load (mA)	Full Load (mA)		Min. load (mA)	Full load (mA)		
SM40A-243R3S40	9-36	80	1598	3.3	0	10000	89	25000
SM40A-2405S40	9-36	100	1893	5	0	8000	91	13000
SM40A-2412S40	9-36	50	1925	12	0	3350	90	2300
SM40A-2415S40	9-36	50	1904	15	0	2650	90	1500
SM40A-483R3S40	18-75	60	799	3.3	0	10000	89	25000
SM40A-4805S40	18-75	60	936	5	0	8000	92	13000
SM40A-4812S40	18-75	30	963	12	0	3350	90	2300
SM40A-4815S40	18-75	30	941	15	0	2650	91	1500
SM40A-2412D40	9-36	60	1919	±12	0	±1650	89	±1200
SM40A-2415D40	9-36	60	1962	±15	0	±1350	89	±750
SM40A-4812D40	18-75	30	948	±12	0	±1650	90	±1200
SM40A-4815D40	18-75	30	970	±15	0	±1350	90	±750

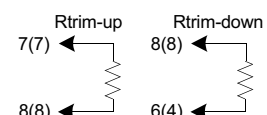
MECHANICAL SPECIFICATIONS



PIN CONNECTIONS		
PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	-Sense	+Vout
5	+Sense	Com
6	+Vout	Com
7	-Vout	-Vout
8	Trim	Trim

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. () for dual output trim.



All dimensions are typical in millimeters (inches).

1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
2. Pin pitch and length tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)



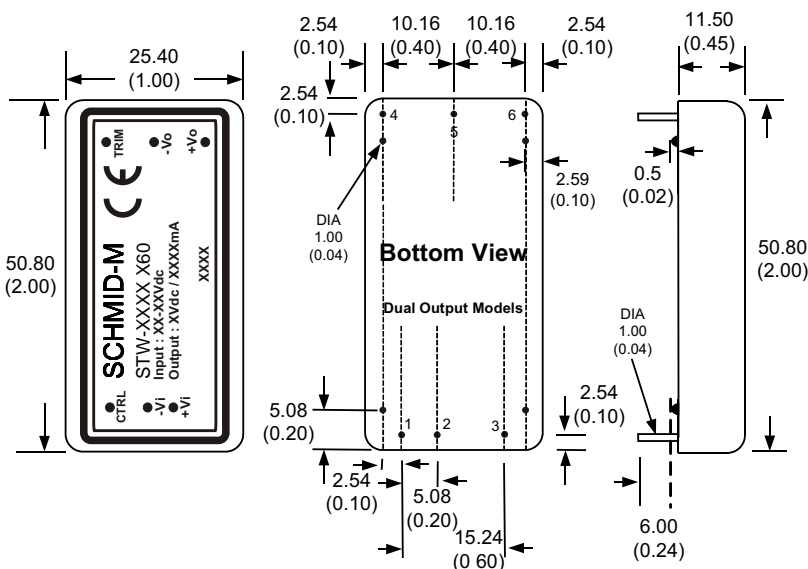
Features

- Wide 4:1 Input Range
- 1600 VDC Isolation
- Efficiency up to 93%
- Extended Operating Temperature Range -40 ~ 100°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Current Protection
- Over Voltage Protection
- Over Temperature Protection
- Soft Start
- No minimum load required

MODEL SELECTION GUIDE

MODEL NUMBER	INPUT Voltage Range (Vdc)	INPUT Current		OUTPUT Voltage (Vdc)	OUTPUT Current		EFFICIENCY @FL (% , typ.)	Capacitor Load @FL (µF, max.)
		No-Load (mA, max.)	Full Load (mA, typ.)		Min. load (mA)	Full load (mA)		
STW-2405S60	9-36, 24V Nominal	25	2703	5	0	12000	92.5	30000
STW-2412S60	9-36, 24V Nominal	25	2703	12	0	5000	92.5	5850
STW-2415S60	9-36, 24V Nominal	25	2688	15	0	4000	93	3900
STW-4805S60	18-75, 48V Nominal	25	1344	5	0	12000	93	30000
STW-4812S60	18-75, 48V Nominal	25	1351	12	0	5000	92.5	5850
STW-4815S60	18-75, 48V Nominal	25	1344	15	0	4000	93	3900
STW-2412D60	9-36, 24V Nominal	40	2747	±12	0	±2500	91	±3900
STW-2415D60	9-36, 24V Nominal	50	2747	±15	0	±2000	91	±2400
STW-4812D60	18-75, 48V Nominal	40	1373	±12	0	±2500	91	±3900
STW-4815D60	18-75, 48V Nominal	50	1373	±15	0	±2000	91	±2400

MECHANICAL SPECIFICATIONS

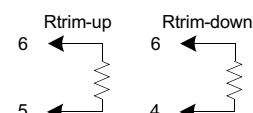


PIN CONNECTIONS

PIN NUMBER	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	+Vout	+Vout
5	-Vout	Com
6	Trim	-Vout

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method as below. (single output models only)



- All dimensions are typical in millimeters (inches).
1. Pin diameter: 1.0 ±0.05 (0.04 ±0.002)
 2. Pin pitch and length tolerance: ±0.35 (±0.014)
 3. Case Tolerance: ±0.5 (±0.02)
 4. Stand-off Tolerance: ±0.1 (±0.004)



Series with suffix "H" are heat sink mounting;

Features

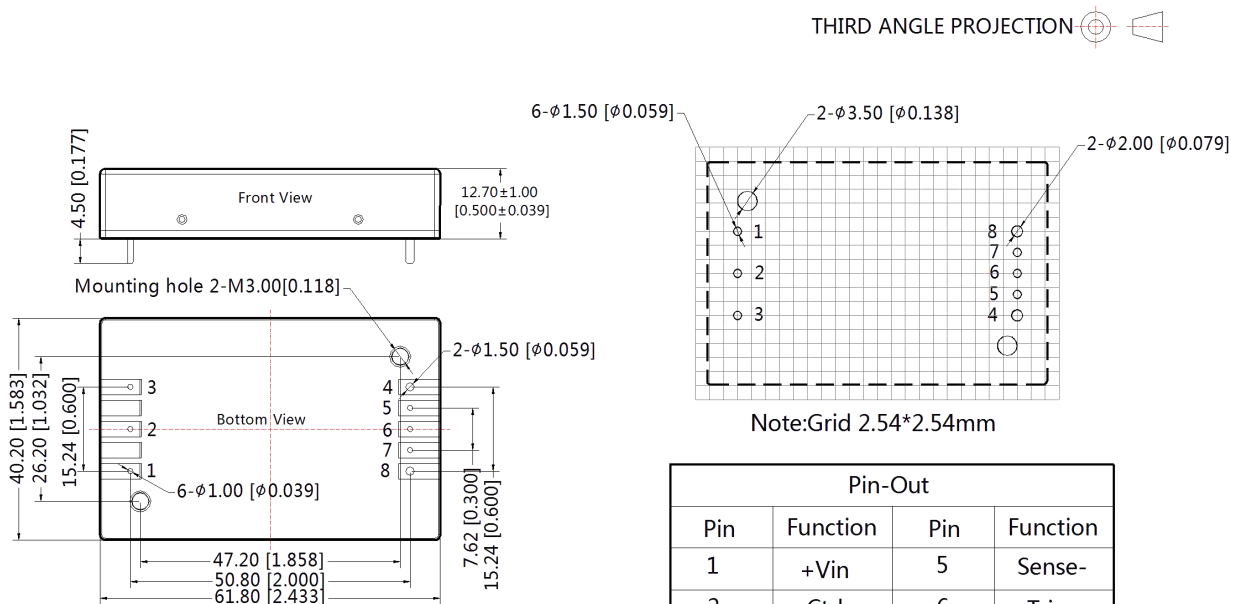
- Ultra wide input voltage range (4:1)
- High efficiency up to 90%
- Isolation voltage: 2.25K VDC
- Input under-voltage protection, output short circuit, over-current, over-voltage, over-temperature protection
- Operating temperature range: -40°C to +85°C
- Five-sided metal shielding package
- International standard pin-out: 1/4 brick
- Meets requirements of railway standard EN50155

Selection Guide

Part No. ^①	Input Voltage (VDC)		Output		Efficiency (%Min./Typ.) @ Full Load	Max. Capacitive Load(μF)
	Nominal (Range)	Max. ^②	Output Voltage(VDC)	Output Current (A)(Max.)		
SURF2405QB-100W(F/H)R3	24 (9-36)	40	5	20	87/89	6000
SURF2412QB-100W(F/H)R3			12	8.3	88/90	2000
SURF2415QB-100W(F/H)R3			15	6.7	88/90	2000
SURF2424QB-100W(F/H)R3			24	4.2	88/90	1000
SURF2428QB-100W(F/H)R3			28	3.6	88/90	1000
SURF2448QB-100W(F/H)R3			48	2.1	88/90	470

Note:
 ①'F' means product with aluminium bottom case;Series with suffix "H" are heat sink mounting; If the application has a higher requirement for heat dissipation, you can choose modules with heat sink;
 ②Exceeding the maximum input voltage may cause permanent damage.

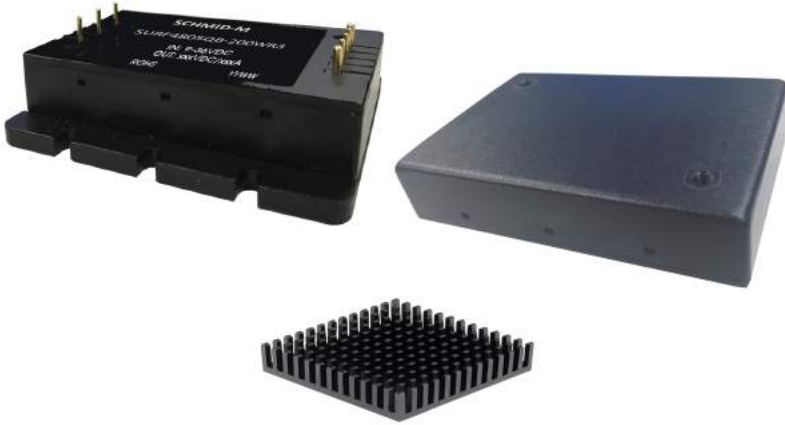
MECHANICAL SPECIFICATIONS



Pin-Out			
Pin	Function	Pin	Function
1	+Vin	5	Sense-
2	Ctrl	6	Trim
3	-Vin	7	Sense+
4	0V	8	+Vo

Note:
 Unit: mm[inch]
 Pin1, 2, 3, 5, 6, 7's diameter: 1.00[0.039]
 Pin4, 8's diameter: 1.50[0.059]
 Pin diameter tolerances: ±0.10[±0.004]
 General tolerances: ±0.50[±0.020]
 Mounting hole screwing torque: Max 0.4 N·m

SURF48_QB-200 DC/DC Converter



Series with suffix "H" are heat sink mounting;

Features

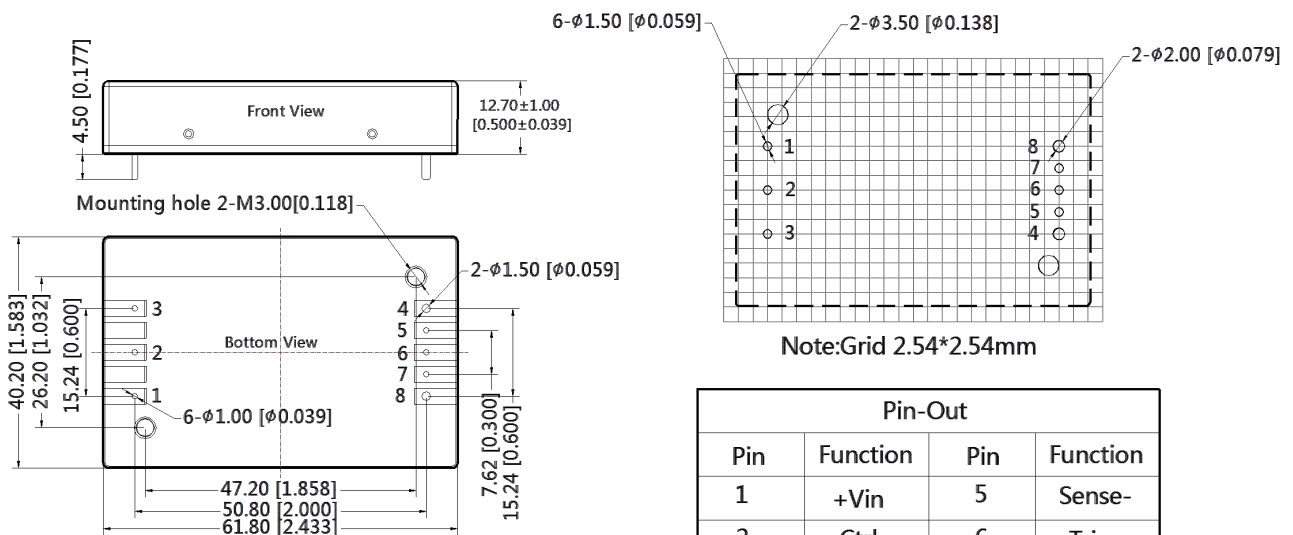
- Ultra wide input voltage range (4:1)
- High efficiency up to 91%
- Isolation voltage: 2.25K VDC
- Input under-voltage protection, Output short circuit, over-current, over-voltage, over-temperature protection
- Operating temperature range: -40°C to +85°C
- Five-sided metal shielding package
- International standard pin-out: 1/4 brick

Selection Guide

Part No.	Input Voltage (VDC)		Output		Efficiency (%Min./Typ.) @ Full Load	Max. Capacitive Load(μF)
	Nominal (Range)	Max. [Ⓞ]	Output Voltage(VDC)	Output Current (A)(Max.)		
SURF4805QB-200W(F/H)R3	48 (18-75)	80	5	40	86/88	6000
SURF4812QB-200W(F/H)R3			12	16.7	89/91	2000
SURF4815QB-200W(F/H)R3			15	13.3	87/89	2000
SURF4824QB-200W(F/H)R3			24	8.4	89/91	1000
SURF4848QB-200W(F/H)R3			48	4.2	89/91	450

Note: ① Exceeding the maximum input voltage may cause permanent damage.

THIRD ANGLE PROJECTION



Note:
 Unit: mm[inch]
 Pin1, 2, 3, 5, 6, 7's diameter: 1.00[0.039]
 Pin4, 8's diameter: 1.50[0.059]
 Pin diameter tolerances: ±0.10[±0.004]
 General tolerances: ±0.50[±0.020]
 Mounting hole screwing torque: Max 0.4 N·m

Pin-Out			
Pin	Function	Pin	Function
1	+Vin	5	Sense-
2	Ctrl	6	Trim
3	-Vin	7	Sense+
4	0V	8	+Vo

1102005101-B0

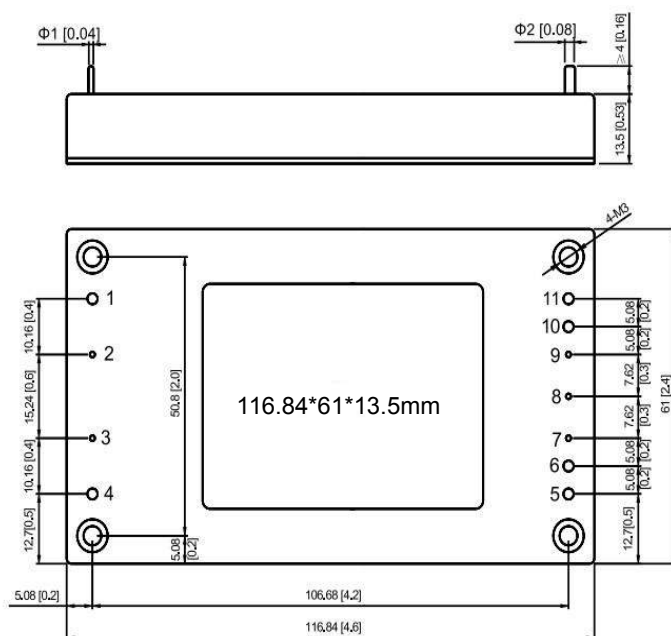


Features

- Wide Input voltage range (2:1)
- Typical Efficiency:85%
- Switching frequency: 300KHz
- Output Over current protect, Short circuit protection
- input under voltage protection, over voltage protection
- input-output isolated
- PCB Board in-line type installs
- High reliability
- Optional heat sink

Product Program

PART #	Input voltage range	VO1	
		V	A
SLD300T-24S05	24 V(18~36V)	5	60
SLD300T-24S12		12	25
SLD300T-24S15		15	20
SLD300T-24S24		24	12.5
SLD300T-24S28		28	10.7
SLD300T-24S36		36	8.3
SLD300T-24S48		48	6.25
SLD300T-48S05	48V(36~72V)	5	60
SLD300T-48S12		12	25
SLD300T-48S15		15	20
SLD300T-48S24		24	12.5
SLD300T-48S28		28	10.7
SLD300T-48S36		36	8.3
SLD300T-48S48		48	6.25
SLD300T-110S12	110V(72~144V)	12	25
SLD300T-110S15		15	20
SLD300T-110S24		24	12.5
SLD300T-110S28		28	10.7
SLD300T-110S36		36	8.3
SLD300T-110S48		48	6.25



PIN CONNECTIONS

PIN NUMBER	SINGLE
1	-Vin
2	Case
3	REM
4	+Vin
5	+Vout
6	+Vout
7	+S
8	TRIM
9	-S
10	-Vout
11	-Vout

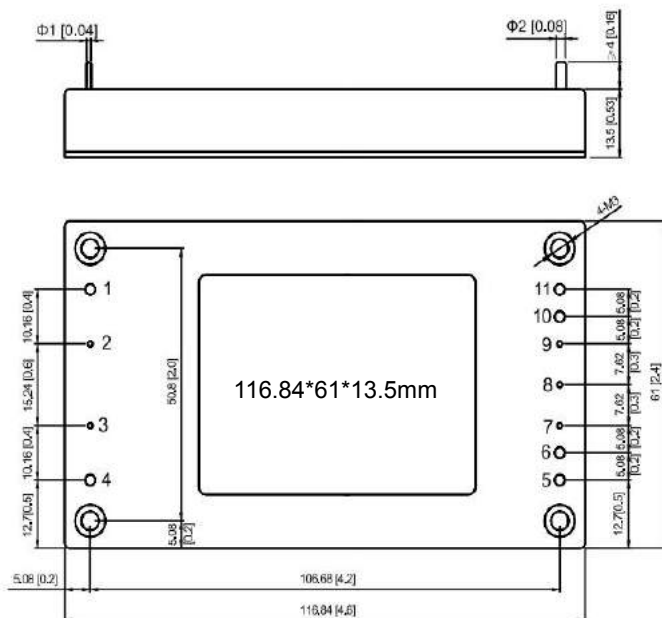


Features

- Wide Input voltage range (2:1)
- Typical Efficiency:85%
- Switching frequency: 300KHz
- Output Over current protect,Short circuit protection
- input under voltage protection,over voltage protection
- input-output isolated
- PCB Board in-line type installs
- High reliability
- Optional heat sink

Product Program

PART #	Input voltage range	VO1	
		V	A
SLD400T-24S05	24 V(18~36V)	5	80
SLD400T-24S12		12	33.3
SLD400T-24S15		15	26.7
SLD400T-24S24		24	16.7
SLD400T-24S28		28	14.3
SLD400T-24S36		36	11.1
SLD400T-24S48		48	8.3
SLD400T-48S05		48V(36~72V)	5
SLD400T-48S12	12		33.3
SLD400T-48S15	15		26.7
SLD400T-48S24	24		16.7
SLD400T-48S28	28		14.3
SLD400T-48S36	36		11.1
SLD400T-110S12	110V(72~144V)	12	33.3
SLD400T-110S15		15	26.7
SLD400T-110S24		24	16.7
SLD400T-110S28		28	14.3
SLD400T-110S36		36	11.1
SLD400T-110S48		48	8.3



PIN CONNECTIONS

PIN NUMBER	SINGLE
1	-Vin
2	Case
3	REM
4	+Vin
5	+Vout
6	+Vout
7	+S
8	TRIM
9	-S
10	-Vout
11	-Vout



Features

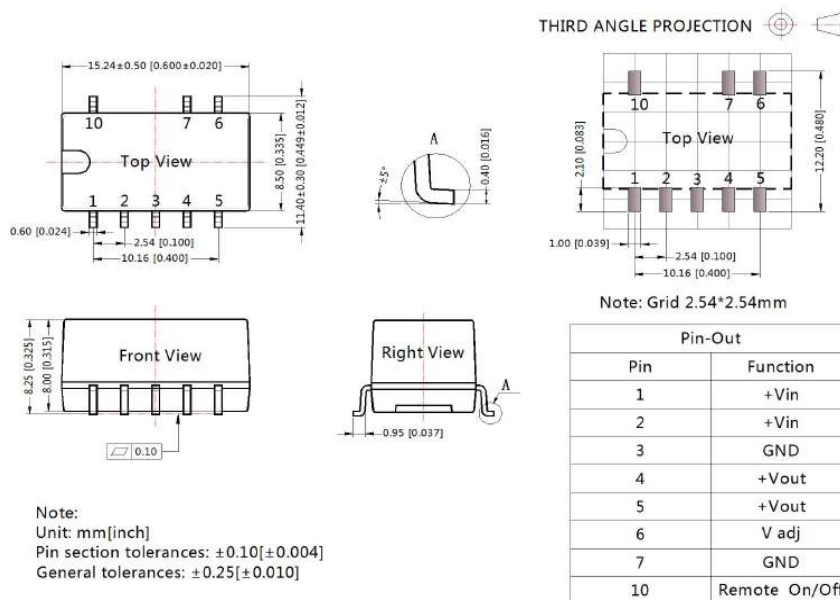
- High efficiency up to 95%
- No-load input current as low as 0.2mA
- Operating temperature range: -40°C to +85°C
- Output short circuit protection
- SMD package
- Meets EN62368 standards (Pending)

Selection Guide

Certification	Part Number	Input Voltage (VDC)	Output		Efficiency (%/Typ.) (Min. Vin)/ (Max. Vin) @Full Load	Max. Capacitive Load(μF)
		Nominal (Range)	Output Voltage (VDC)	Max. Output Current (mA)		
CE (Pending)	SK7801T-500R3	12 (4.75-28)	1.5	500	76/67	680
	SK78X2T-500R3	12 (4.75-28)	1.8	500	76/69	680
	SK7802T-500R3	12 (4.75-32)	2.5	500	81/74	680
	SK7803T-500R3	24 (4.75-36)	3.3	500	86/80	680
	SK7805T-500R3	24 (6.5-36)	5	500	90/84	680
	SK78X6T-500R3	24 (8-36)	6.5	500	92/87	680
	SK7809T-500R3	24 (12-36)	9	500	93/90	680
	SK7812T-500R3	24 (15-36)	12	500	94/91	680
	SK7815T-500R3	24 (19-36)	15	500	95/93	680

Note: For input voltage higher than 30 VDC, a 22μF/50V input capacitor is required.

MECHANICAL SPECIFICATIONS



Note:
Unit: mm[inch]
Pin section tolerances: ±0.10[±0.004]
General tolerances: ±0.25[±0.010]

NC: Pin to be isolated from circuitry



Features

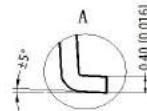
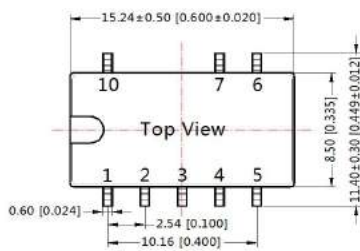
- High efficiency up to 95%
- No-load input current as low as 0.2mA
- Operating temperature range: -40°C to +85°C
- Output short circuit protection
- SMD package
- Meets EN62368 standards (Pending)

Selection Guide

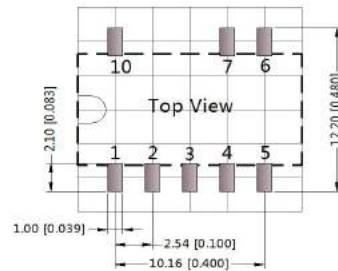
Certification	Part Number	Input Voltage (VDC)	Output		Efficiency (%/Typ.) (Min. Vin)/ (Max. Vin) @Full Load	Max. Capacitive Load(μF)
		Nominal (Range)	Output Voltage (VDC)	Max. Output Current (mA)		
CE (Pending)	SK7801T-1000R3	12 (4.75-32)	1.5	1000	76/66	680
	SK78X2T-1000R3	12 (4.75-32)	1.8	1000	79/69	680
	SK7802T-1000R3	12 (4.75-32)	2.5	1000	86/74	680
	SK7803T-1000R3	24 (6.5-36)	3.3	1000	90/80	680
	SK7805T-1000R3	24 (8-36)	5	1000	93/85	680
	SK78X6T-1000R3	24 (10-36)	6.5	1000	93/86	680
	SK7809T-1000R3	24 (13-36)	9	1000	94/89	680
	SK7812T-1000R3	24 (16-36)	12	800	95/92	680

Note: For input voltage higher than 30 VDC, a 22μF/50V input capacitor is required.

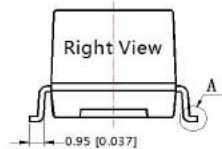
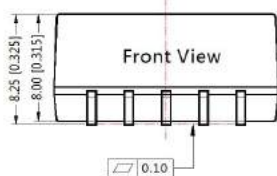
MECHANICAL SPECIFICATIONS



THIRD ANGLE PROJECTION



Note: Grid 2.54*2.54mm



Note:
Unit: mm[inch]
Pin section tolerances: ±0.10[±0.004]
General tolerances: ±0.25[±0.010]

Pin-Out	
Pin	Function
1	+Vin
2	+Vin
3	GND
4	+Vout
5	+Vout
6	V adj
7	GND
10	Remote On/Off

NC: Pin to be isolated from circuitry



Features

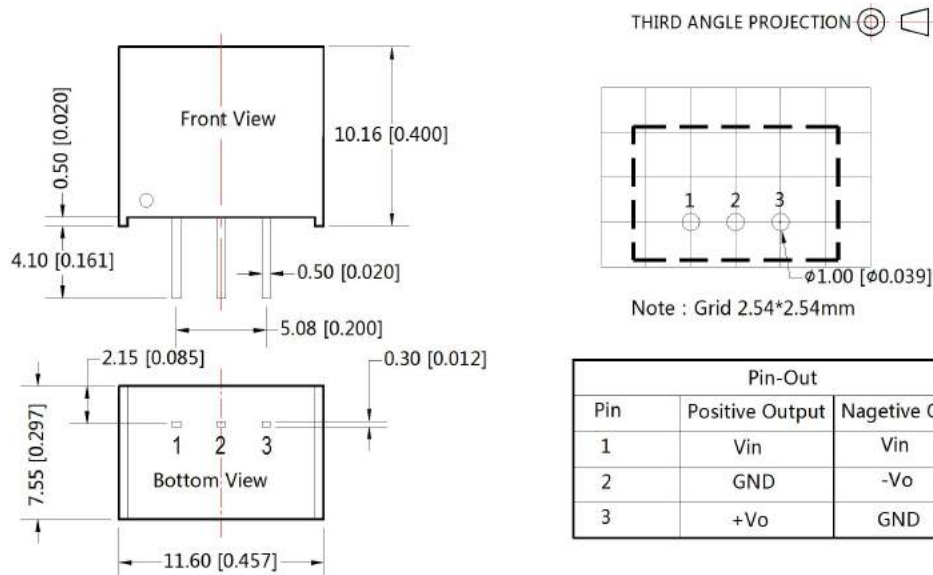
- High efficiency up to 95%
- No-load input current as low as 0.2mA
- Operating temperature range: -40°C to +85°C
- Support the negative output
- Output short circuit protection
- Pin-out compatible with LM78XX linear regulators
- UL60950,EN60950 approval

Selection Guide

Certification	Part Number	Input Voltage (VDC)	Output		Efficiency (%/Typ.) (Min. Vin)/ (Max. Vin) @Full Load	Max. Capacitive Load(μF)
		Nominal (Range)	Output Voltage (VDC)	Max. Output Current (mA)		
UL/CE	SK7803-500R3	24 (4.75-36)	3.3	500	86/80	680
	SK7805-500R3	24 (6.5-36)	5.0	500	90/84	680
		12 (7-31)	-5.0	-300	80/81	330
	SK7809-500R3	24 (12-36)	9	500	93/90	680
	SK7812-500R3	24 (15-36)	12	500	94/91	680
		12 (8-24)	-12	-150	84/85	330
	SK7815-500R3	24 (19-36)	15	500	95/93	680
		12 (8-21)	-15	-150	85/87	330

Note: For input voltage higher than 30 VDC, a 22μF/50V input capacitor is required.

MECHANICAL SPECIFICATIONS



Note:
Unit :mm[inch]
Pin section tolerances:±0.10[±0.004]
General tolerances:±0.25[±0.010]

1100000405-B0



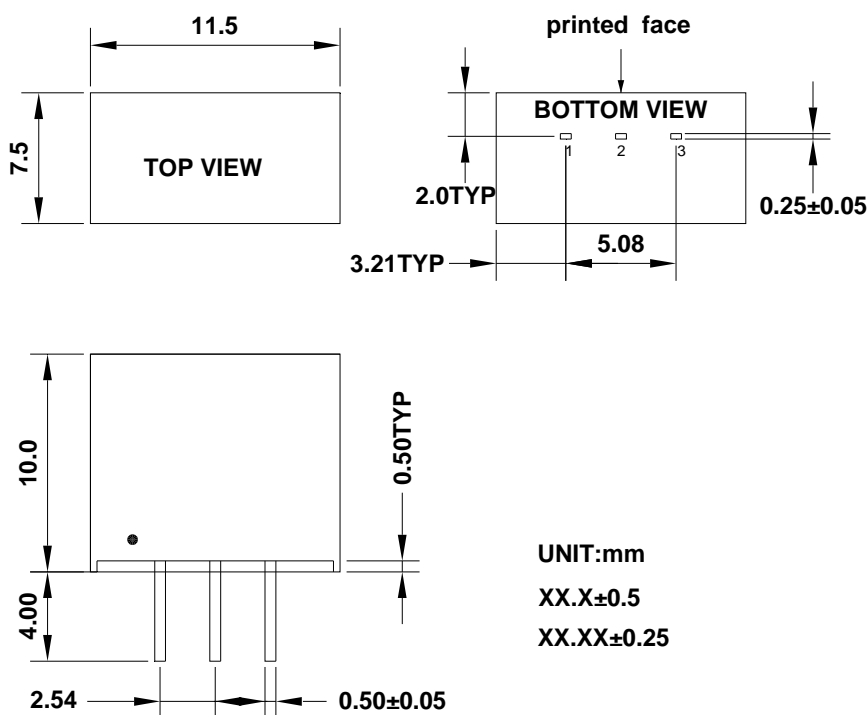
Features

- 3PIN SIP Package
- Pin-out compatible with LM78XX Linear
- UL94V-0 Package Material
- Operating Temperature: -40°C TO +85°C
- Efficiency up to 96%, Non isolated, no need for heatsinks
- Short circuit protection

Selection Guide

Part Number	Input Range	Output Voltage	Output Current	Efficiency	
	Vdc	Vdc	mA	Min. Vin(%)	Max. Vin(%)
S01D-1R2-1A	4.6-36	1.2	1000	74	62
S01D-1R5-1A	4.6-36	1.5	1000	78	65
S01D-1R8-1A	4.6-36	1.8	1000	82	69
S01D-2R5-1A	4.6-36	2.5	1000	87	75
S01D-3R3-1A	4.75-36	3.3	1000	91	78
S01D-05-1A	6.5-36	5.0	1000	92	84
S01D-6R5-1A	9.0-36	6.5	1000	93	87
S01D-09-1A	12-36	9.0	1000	95	90
S01D-12-1A	15-36	12	1000	95	92
S01D-15-1A	18-36	15	1000	96	94

MECHANICAL SPECIFICATIONS



PIN Connection

PIN	1	2	3
SINGLE	+Vin	GND	+Vout



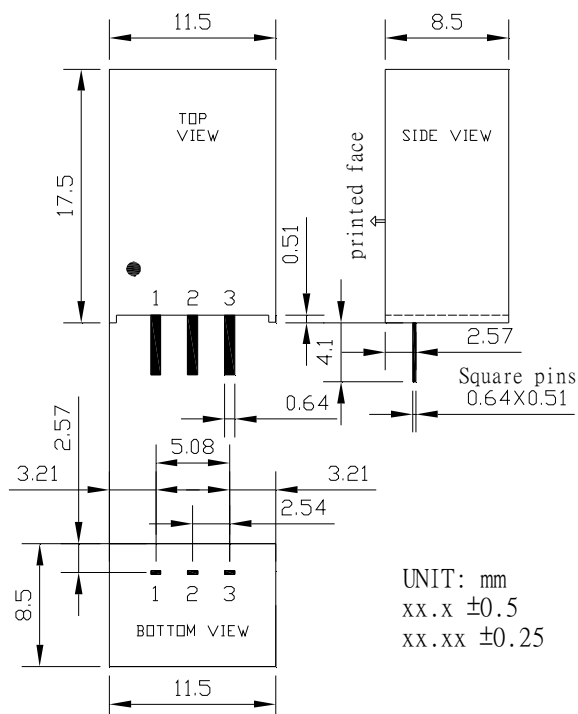
Features

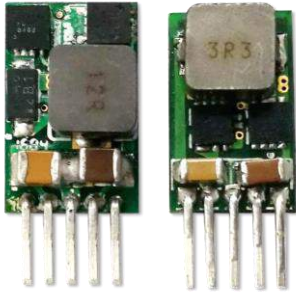
- 3PIN SIP Package
- Pin-out compatible with LM78XX Linears
- UL94V-0 Package Material
- Operating Temperature: -40°C TO +85°C
- Efficiency up to 96%, Non isolated, no need for heatsinks
- Short circuit protection
- Wide input voltage ranges 4.75~36VDC

Selection Guide

Part Number	Input Range	Output Voltage	Output Current	Efficiency	
	Vdc	Vdc	mA	Min. Vin(%)	Max. Vin(%)
S01D-1R8-2A	4.75-36	1.8	2000	89	80
S01D-2R5-2A	4.75-36	2.5	2000	91	83
S01D-3R3-2A	4.75-36	3.3	2000	90	86
S01D-05-2A	6.5-36	5.0	2000	92	89
S01D-6R5-2A	9.0-36	6.5	2000	93	91
S01D-09-2A	12-36	9.0	2000	94	92
S01D-12-2A	15-36	12	2000	95	93
S01D-15-2A	18-36	15	2000	96	94

MECHANICAL SPECIFICATIONS





Features

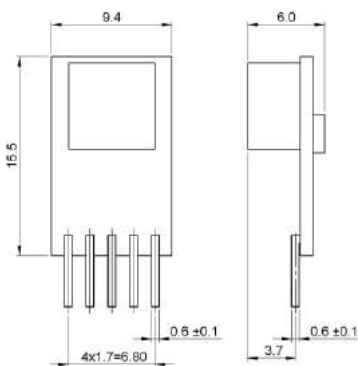
- Open frame packages
- Remote On/Off
- Adjustable output voltages
- Operating Temperature: -40°C TO +85°C
- Efficiency up to 95%, Non isolated, no need for heatsink
- Short circuit protection
- Wide input voltage ranges 4.5~14VDC and 10~30 VDC

Selection Guide

Part Number	Input Voltage (VDC)	Output		Efficiency	
	Nominal (Range)	Output Voltage (VDC)	Output Current (mA)		
S01D-1206-3A	4.5-14	0.59 - 6.0	3000	93	
S01D-2406-3A	10-30	3.0 - 6.0	3000	91	
S01D-2415-3A	10-30	5.0 - 15	3000	95	

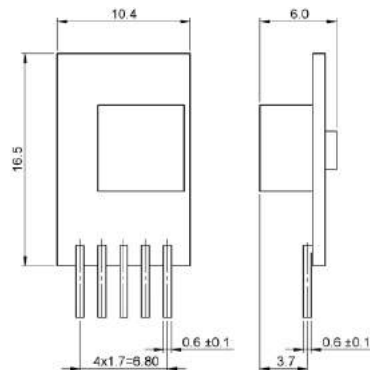
MECHANICAL SPECIFICATIONS

S01D-1206-3A

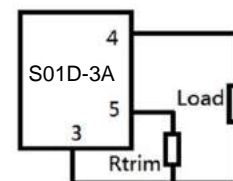


Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

S01D-2406-3A / S01D-2415-3A



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25



Part Number	R trim [KΩ]
S01D-1206-3A	1.18/(Vo-0.59)
S01D-2406-3A	11.2/(Vo-3)
S01D-2415-3A	8.4/(Vo-5)



Features

- Ultra wide input voltage range: 85 - 305VAC/70 - 430VDC
- AC and DC dual-use (input from the same terminal)
- Compact size, High power density
- Output short circuit, over-current protection
- IEC60950, UL60950, EN60950 approval

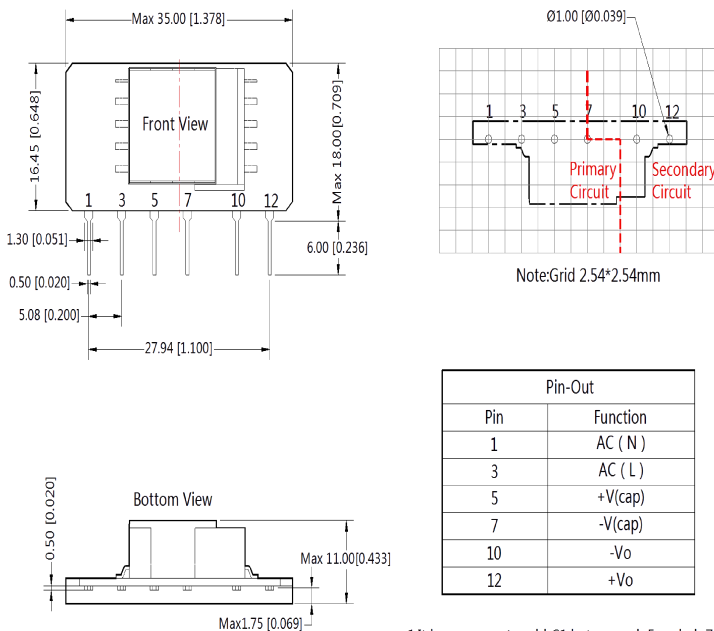
Selection Guide

Certification	Part No.	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC, %/Typ.)	Max. Capacitive Load (uF)
UL/CE/CB	SLS01-15B05SS(-F)*	1W	5V/200mA	66	220
	SLS01-15B09SS(-F)		9V/111mA	67	100
	SLS01-15B12SS(-F)		12V/83mA	70	100
	SLS01-15B15SS(-F)		15V/67mA	69	100
	SLS01-15B24SS(-F)		24V/42mA	68	100

Note: *The model of 90 degrees of corner is with -F. For example the SLS01-15B12SS of 90 degrees of corner product is SLS01-15B12SS-F.

MECHANICAL SPECIFICATIONS

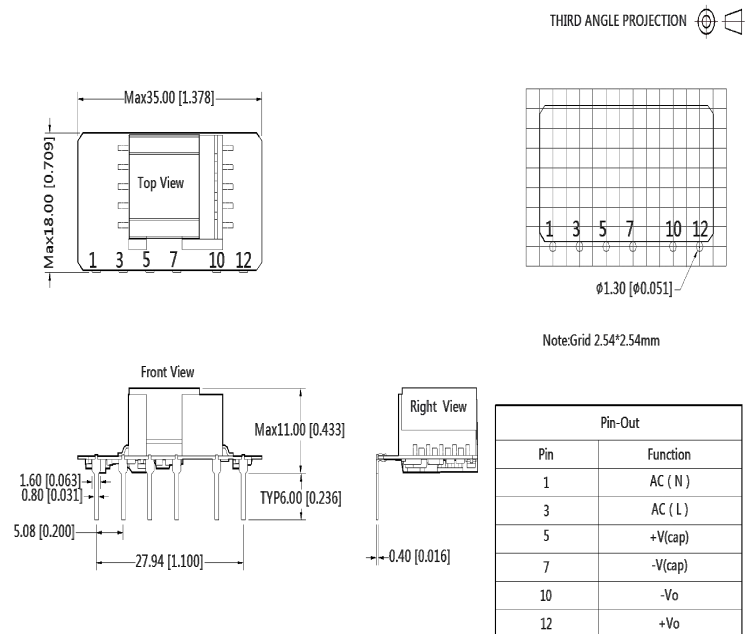
SLS01-15BxxSS Dimensions and Recommended Layout



Note:
Unit: mm[inch]
Pin section tolerances: $\pm 0.10[\pm 0.004]$
General tolerances: $\pm 0.50[\pm 0.020]$
The layout of the device is for reference only, please refer to the actual product

1.It is necessary to add C1 between pin5 and pin7 ;
2.It is necessary to add pi-type filter circuit to the output,such as the typical application of Figure 1;
3.It is needed to have distance ≥ 6.4 mm for safety between external componets in primary circuit and secondary circuit.

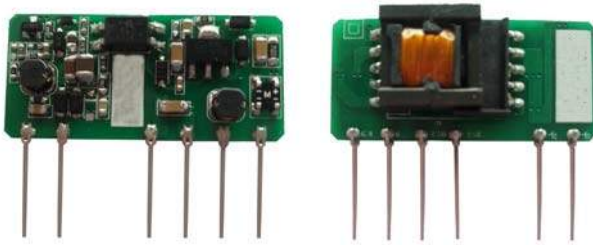
SLS01-15BxxSS-F Dimensions and Recommended Layout



Note:
Unit :mm[inch]
Pin section tolerances $\pm 0.10[\pm 0.004]$
General tolerances $\pm 0.50[\pm 0.020]$
The layout of the device is for reference only, please refer to the actual product

1.It is necessary to add C1 between pin5 and Pin7 ;
2.It is necessary to add pi-type filter circuit to the output,such as the typical application of Figure 1.

3LS0000015-A0



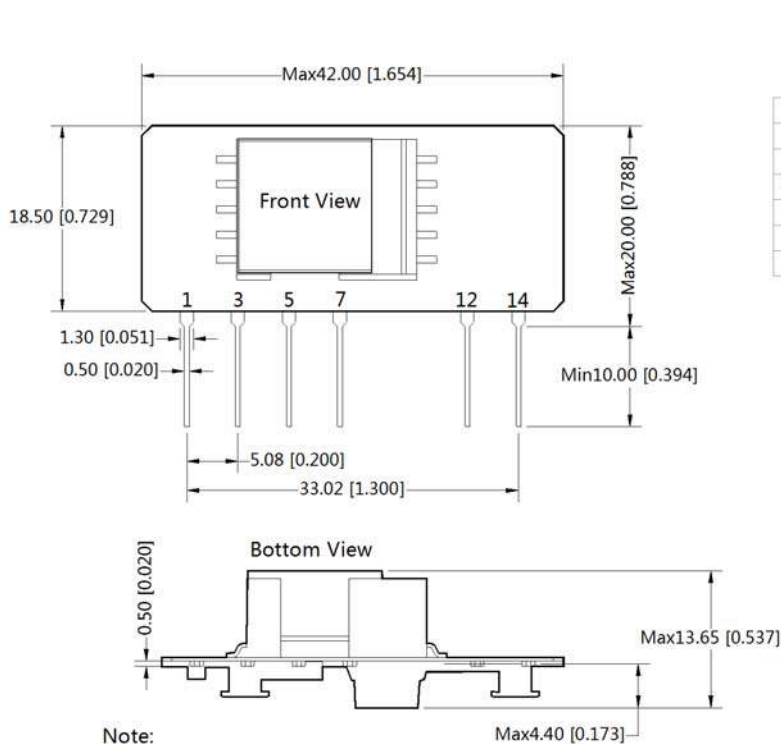
Features

- Wide input voltage range: 85~264VAC/100~400VDC
- Over current protection and short circuit protection
- High efficiency, high safety isolation 3000VAC
- Urtal-slim SIP package
- Industrial grade
- Meet IEC60950, UL60950 and EN60950 standards
- UL60950, EN60950 approval
- 3 years of quality assurance

Selection Guide

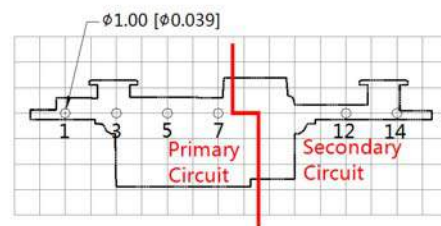
Certification	Model	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC,%/Typ.)	Max. Capacitive Load (uF)
UL/CE	SLS05-15B03SS	3.3W	3.3V/1A	67	2200
	SLS05-15B05SS		5V/1A	74	1500
	SLS05-15B09SS		9V/0.56A	75	680
	SLS05-15B12SS		12V/0.42A	76	470
	SLS05-15B15SS		15V/0.34A	77	330
	SLS05-15B24SS		24V/0.21A	79	100

MECHANICAL SPECIFICATIONS



Note:
 Unit :mm[inch]
 Pin section tolerances :±0.10[±0.004]
 General tolerances:±0.50[±0.020]

THIRD ANGLE PROJECTION



Note:Grid 2.54*2.54mm

Pin-Out	
Pin	Function
1	AC(N)
3	AC(L)
5	+V(cap)
7	-V(cap)
12	-Vo
14	+Vo

- 1.It is necessary to add C1 between pin5 and pin7.
- 2.It is necessary to add circuit to the output,such as the typical application of Figure 1.
- 3.It is needed to have distance $\geq 6.4\text{mm}$ for safety between external componets in primary circuit and secondary circuit.

3LS0000016-B0



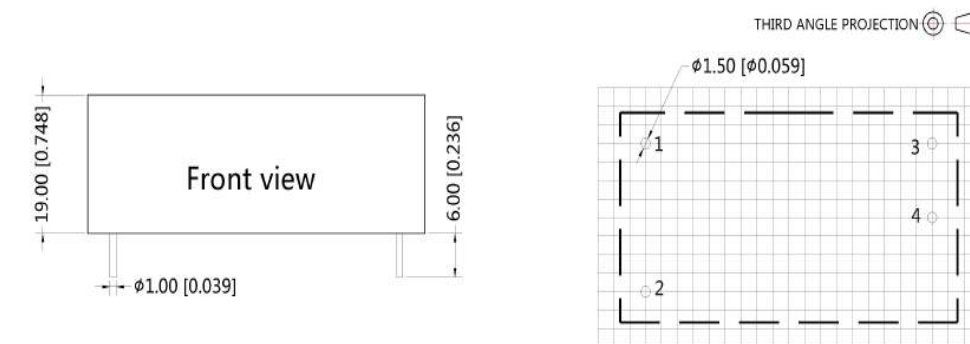
Features

- Universal input voltage range: 85~264VAC/100~370VDC
- Operating temperature range: -25°C to +70°C
- Output short circuit, over-current, over-voltage protections
- UL60950(industrial level), EN60601(Medical safety according to EN 60601 -1 3rd edition) approval
- Mounting: PCB mounting, Chassis mounting, Din-Rail mounting available

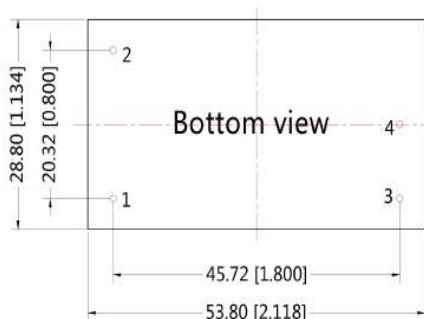
Selection Guide

Certification	Part No.	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC, %/Typ.)	Max. Capacitive Load (µF)
UL/CE	SLD10-20B03	6.6W	3.3V/2000mA	71	15000
	SLD10-20B05	10W	5V/2000mA	76	12000
	SLD10-20B09		9V/1100mA	80	6000
	SLD10-20B12		12V/900mA	81	2000
	SLD10-20B15		15V/700mA	82	1500
	SLD10-20B24		24V/450mA	83	500

MECHANICAL SPECIFICATIONS



Note : Grid 2.54*2.54mm



Note:
 Unit :mm[inch]
 Pin diameter tolerances :±0.10[±0.004]
 General tolerances:±0.50[±0.020]

Pin-Out	
Pin	Function
1	AC(N)
2	AC(L)
3	+Vo
4	-Vo

Features

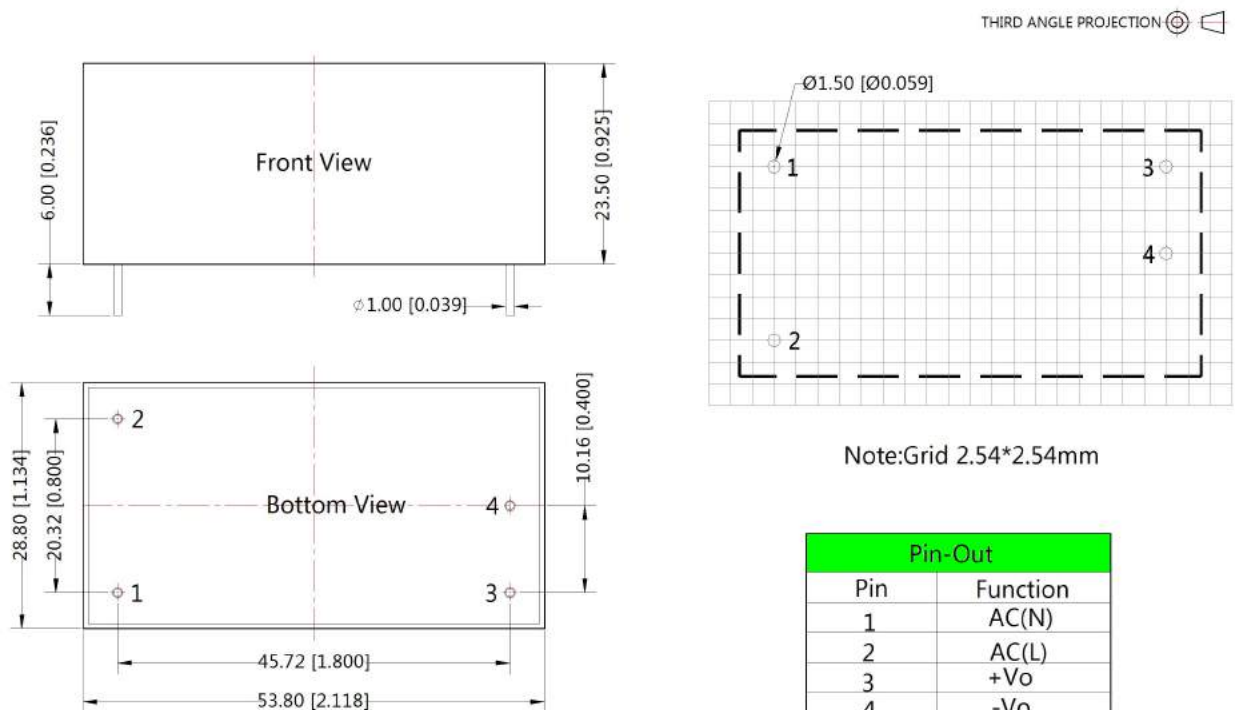
- Universal Input:85~264VAC/100~370VDC
- AC and DC dual-use(input from the same terminal)
- High efficiency, low power consumption, meet energy star standards
- Low ripple & noise
- Compact size
- Output short circuit, over-current, over-voltage protection
- Mounting: PCB mounting, Chassis mounting, DIN-Rail mounting available
- UL60950, EN60950 approval



Selection Guide

Certification	Model	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC,%/Typ.)	Max. Capacitive Load (μF)
UL/CE	SLD20-10B03	11.88W	3.3V/3600mA	74	10000
	SLD20-10B05	18W	5V/3600mA	78	10000
	SLD20-10B12	20W	12V/1660mA	82	5400
	SLD20-10B15		15V/1330mA	83	2700
	SLD20-10B24		24V/833mA	83	1500

MECHANICAL SPECIFICATIONS



Note:
 Unit :mm[inch]
 Pin diameter tolerances : $\pm 0.10[\pm 0.004]$
 General tolerances: $\pm 0.50[\pm 0.020]$



Features

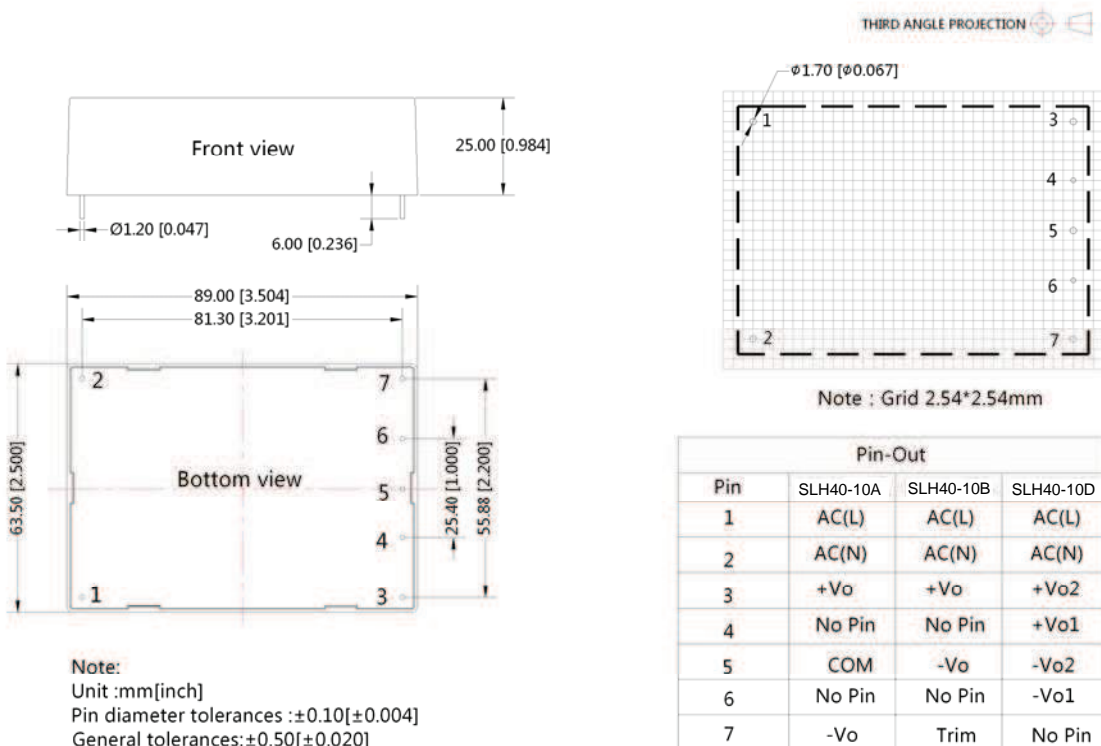
- Wide Input voltage range: 85~264VAC/100~370VDC
- Low standby power consumption: 0.5W, conversion efficiency up to 84%
- Output short circuit, over-current, over-voltage protection
- Meet IEC61000, UL60950 and EN60950 standards
- Mounting: PCB mounting, Chassis mounting, DIN-Rail mounting available

Selection Guide

Certification	Part No.*	Output Power	Nominal Output Voltage and Current		Efficiency (230VAC, %/Typ.)	Max. Capacitive Load(μF)
			(Vo1/Io1)	(Vo2/Io2)		
UL/CE	SLH40-10B03	26.4W	3.3VDC/8000mA	—	78	60000
	SLH40-10B05		5VDC/8000mA	—	82	40000
	SLH40-10B09		9VDC/4444mA	—	84	12000
	SLH40-10B12		12VDC/3333mA	—	84	9000
	SLH40-10B15		15VDC/2666mA	—	84	7000
	SLH40-10B24		24VDC/1667mA	—	84	2000
—	SLH40-10D0512-13	40W	5VDC/5000mA	12VDC/1250mA	82	10000/470
	SLH40-10D0524-06		5VDC/5000mA	24VDC/625mA	82	10000/400
	SLH40-10A05		+5VDC/4000mA	-5VDC/4000mA	82	±12000
	SLH40-10A12		+12VDC/1666mA	-12VDC/1666mA	84	±4400
	SLH40-10A15		+15VDC/1333mA	-15VDC/1333mA	84	±1000

Note:*product model with a suffix of "A5" means chassis mounting and that with a suffix of "A6" indicates DIN-Rail mounting (e.g. SLH40-10B05A5 means chassis mounting; SLH40-10B05A6 means DIN-Rail mounting).

MECHANICAL SPECIFICATIONS





Features

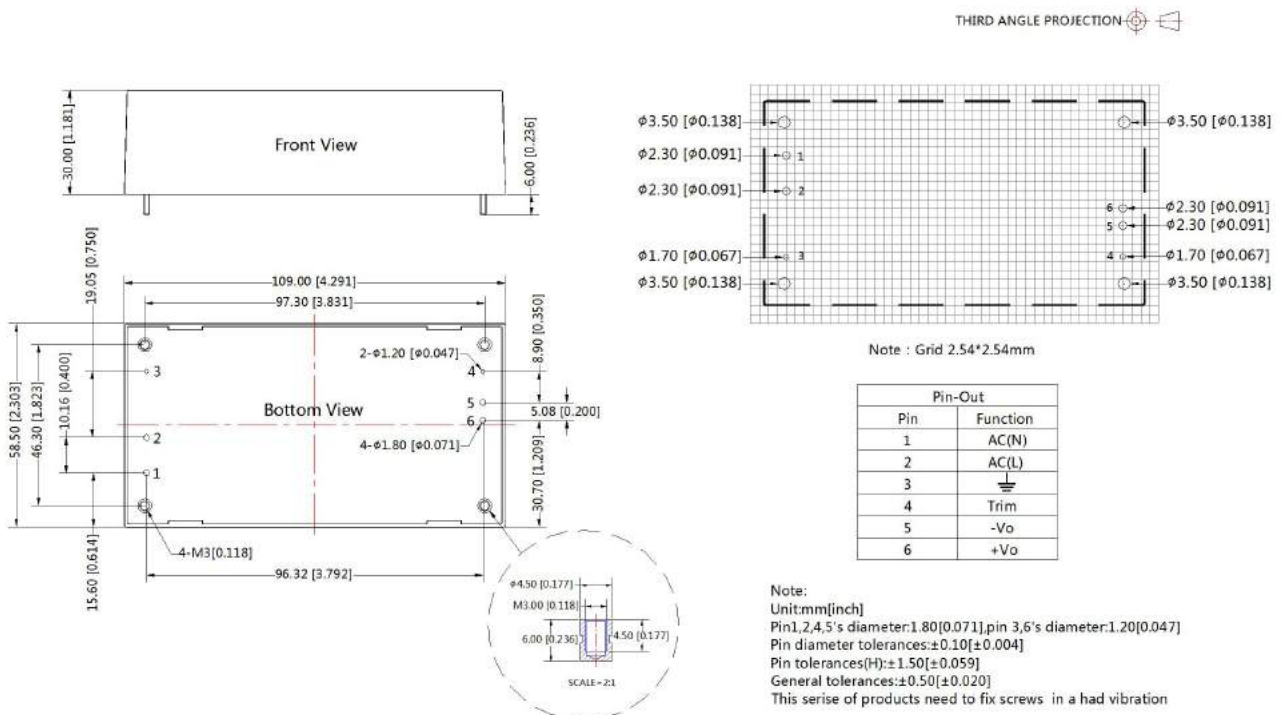
- Wide input voltage range: 90 - 264VAC/122 - 370VDC; 55 - 264VAC/77 - 370VDC(LH60-20Bxx-DT Series)
- Low standby power consumption: 0.5W
- Conversion efficiency up to 86%
- High isolation voltage up to 4K VAC
- Output short circuit, over-current, over-voltage protection
- IEC60950, UL60950, EN60950 approval
- Mounting: PCB mounting, Chassis mounting, DIN-Rail mounting available

Selection Guide

Certification	Part No.*	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC, %/Typ.)	Max. Capacitive Load (μF)
UL/CE/CB	SLH60-20B05	50W	5V/10A	82	80000
	SLH60-20B05-DT				
	SLH60-20B09	60W	9V/6.6A	84	28000
	SLH60-20B09-DT				
	SLH60-20B12				
	SLH60-20B12-DT				
	SLH60-20B15	60W	12V/5A	86	14000
	SLH60-20B15-DT				
	SLH60-20B24				
SLH60-20B24-DT					
SLH60-20B48	60W	24V/2.5A	86	4000	
SLH60-20B48-DT					
	SLH60-20B48		48V/1.25A	86	1000

Note: 1.* SLH60-20Bxx series has input under-voltage protection ; SLH60-20Bxx-DT series has no input under-voltage protection.
 2.*Part No. with a suffix of "A5" means chassis mounting and that with a suffix of "A6" means DIN-Rail mounting (e.g. SLH60-20B05A5 means chassis mounting; SLH60-20B05A6 means DIN-Rail mounting).

MECHANICAL SPECIFICATIONS





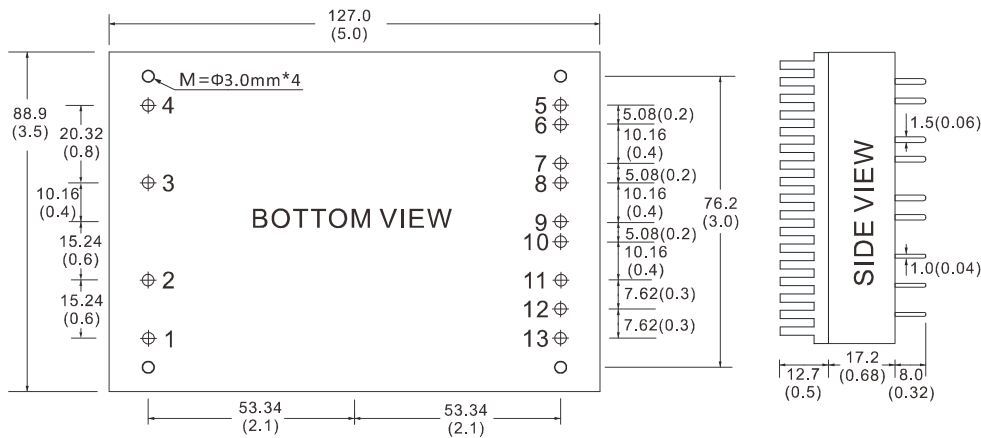
Features

- Universal AC input range
- Short circuit and over current protections
- Board in-line type installation
- High voltage isolation
- Metal Case

Selection Guide

Part No.*	Input Voltage	Output Voltage	Output Current	Output Power
SALR100-12	85-265	12	8.4	100
SALR100-15		15	6.6	100
SALR100-24		24	4.2	100

MECHANICAL SPECIFICATIONS

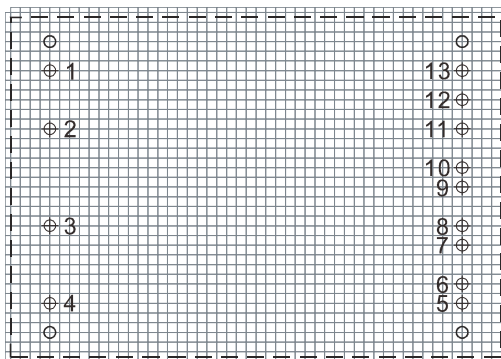


CONNECTION

PIN #	SINGLE
1	NC
2	FG
3	AC(N)
4	AC(L)
5, 6	+Vo
7, 8	No Pin
9, 10	GND
11	+S
12	TRIM
13	-S

Note: Unit is mm(inch);
PIN#1, 2, 11, 12, 13 $\Phi=1.0$ mm,
others $\Phi=1.5$ mm

LAYOUT



Unit: mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1 inch)



Features

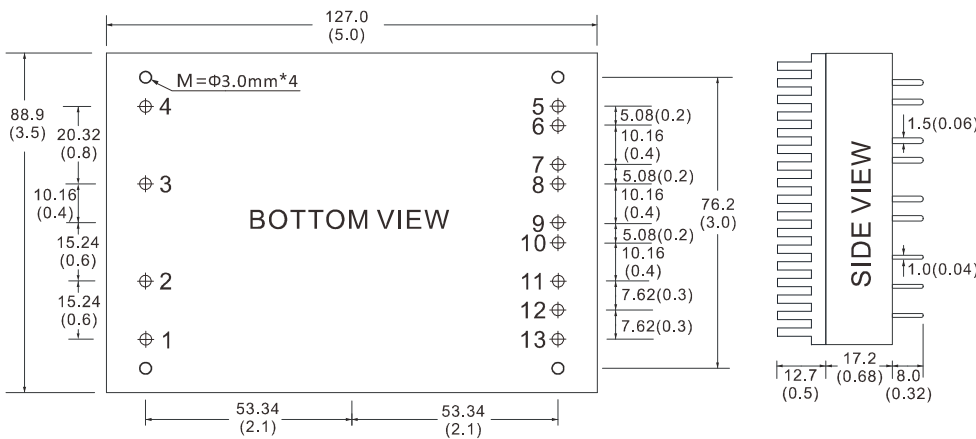
- Universal AC input range
- Short circuit and over current protections
- Board in-line type installation
- High voltage isolation
- Metal Case

Selection Guide

Part No.*	Input Voltage	Output Voltage	Output Current	Output Power
SALR150-12	85-265	12	12.5	150
SALR150-15		15	10	150
SALR150-24		24	6.25	150
SALR150-48		48	3.125	150

MECHANICAL SPECIFICATIONS

MECHANICAL

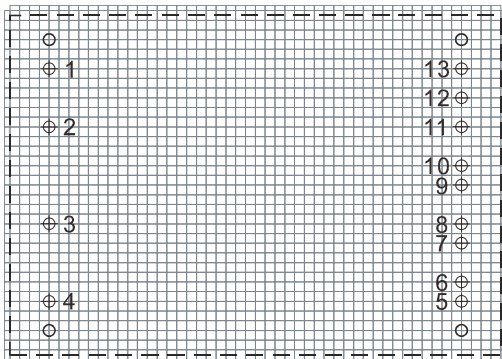


CONNECTION

PIN #	SINGLE
1	NC
2	FG
3	AC(N)
4	AC(L)
5, 6	+Vo
7, 8	No Pin
9, 10	GND
11	+S
12	TRIM
13	-S

Note: Unit is mm(inch);
PIN#1, 2, 11, 12, 13 Φ =1.0mm,
others Φ =1.5mm

LAYOUT



Unit : mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1inch)

General Converter Catalogue

Head Office




SCHMID-MULTITECH GMBH
Weinberbstraße 60b, 93105 Tegernheim
Tel.: +49-9403-9510-0
info@schmid-m.com
www.schmid-m.com



SCHMID-MULTITECH GMBH
Ziemendorf, Dorfstraße 49g
+49-39384-9848-0
39613 Arendsee
info@schmid-m.com
www.schmid-m.com



ATD Elektronik, s.r.o.
Luzenice 10, 344 01 Domazlice
Tel.: +420-379-723-915
info@atd-elektronik.cz
www.atd-elektronik.cz




ABC Elektronik Sp. zo.o.
ul. Kolejowa 10, 38-300 Gorlice
Tel.: +48-18-353-66-65
info@abcpol.pl
www.abcpol.pl



SCHMID-MULTITECH s.r.o.
Podjavorinski 5, 911 05 Trenčín
Tel.: +421-32-7-440-186
mkovacik@smsk.sk
www.schmid-multitech.sk

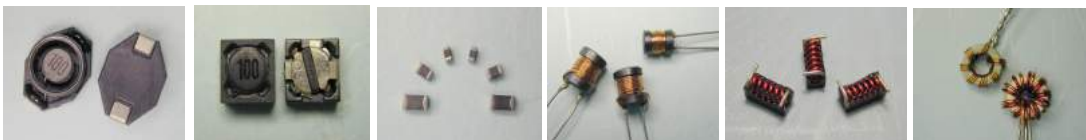


Angiela Elektronik SRL
Aleea Slanic, nr.1/3
Tel.: +40-264-403-284
info@angiela-elektronik.ro
www.angiela-elektronik.ro



ADMM kft.
Rumi u.284, H-9700 Szombathely
Tel.: +36-94-510-022
mail@admm.hu
www.admm.hu

Also available: Inductors



Your reliable partner since 1989.