

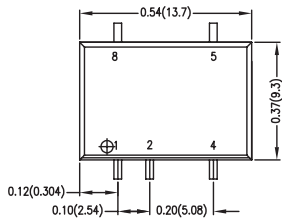
- Efficiency up to 80%
- 1500VDC Isolation
- MTBF > 2,000,000 Hours
- RoHS Compliant



2 Watt SML Single and Dual Series



Model Number	Voltage			Current				Load Regulation % (Max)	Input Overvoltage (1000ms) Max (VDC)	Efficiency @ Max Load (%) Typ	Capacitive Load Max (Dual each output)
	Input		Output	Input		Output					
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)				
SML2H5S3R3	5	4.5 - 5.5	3.3	60	471	10	500	11	9	70	47 μ F
SML2H5S5	5	4.5 - 5.5	5	60	548	8	400	11	9	73	47 μ F
SML2H5S12	5	4.5 - 5.5	12	60	514	3	165	11	9	77	10 μ F
SML2H5D5	5	4.5 - 5.5	± 5	60	541	± 4	± 200	10	9	74	10 μ F
SML2H5D12	5	4.5 - 5.5	± 12	60	524	± 1.5	± 83	7	9	76	4.7 μ F
SML2H5D15	5	4.5 - 5.5	± 15	60	521	± 1	± 66	7	9	76	4.7 μ F
SML2H12S3R3	12	10.8 - 13.2	3.3	30	191	10	500	8	18	72	47 μ F
SML2H12S5	12	10.8 - 13.2	5	30	222	8	400	8	18	75	47 μ F
SML2H12S12	12	10.8 - 13.2	12	30	209	3	165	5	18	79	10 μ F
SML2H12D12	12	10.8 - 13.2	± 12	30	208	± 1.5	± 83	5	18	80	4.7 μ F
SML2H12D15	12	10.8 - 13.2	± 15	30	206	± 1	± 66	5	18	80	4.7 μ F
SML2H24S3R3	24	21.6 - 26.4	3.3	15	96	10	500	8	30	72	47 μ F
SML2H24S5	24	21.6 - 26.4	5	15	111	8	400	8	30	75	47 μ F
SML2H24S12	24	21.6 - 26.4	12	15	105	3	165	5	30	79	10 μ F
SML2H24D12	24	21.6 - 26.4	± 12	15	105	± 1.5	± 83	5	30	79	4.7 μ F
SML2H24D15	24	21.6 - 26.4	± 15	15	104	± 1	± 66	5	30	79	4.7 μ F



Single Output Case

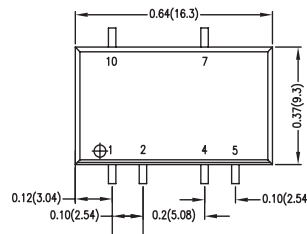
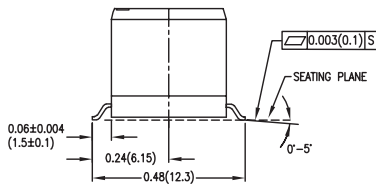
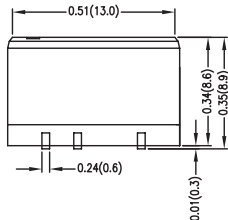
Dimensions are inches (mm) unless noted

Tolerance: Inches Millimeters

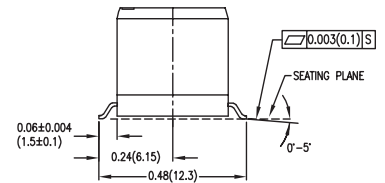
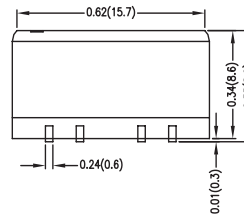
X.XX ± 0.01 X.X ± 0.25

X.XXX ± 0.005 X.XX ± 0.13

Pin ± 0.002 ± 0.05



Dual Output Case



Pin Connections (NC) Not Connected

Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	-Vout	Common
4	+Vout	-Vout
7	No Pin	+Vout
8	NC	No Pin
10	No Pin	NC

See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units
Reverse Polarity Input Current			0.3	A
Switching Frequency	50	100	120	kHz
Input Filter	Internal Capacitor			
Output Parameters	Min	Typ	Max	Units
Output Voltage Balance Dual Output, Balanced Loads		±0.1	±1.0	%
Load Regulation I _o = 20% to 100%	See Model Selection Guide			%
Line Regulation for Vin Change of 10%		±1.2	±1.5	%
Ripple & Noise (20MHz)		100	120	mV P-P
Ripple & Noise (20 MHz) Over Line, Load & Temp			200	mV P-P
Ripple & Noise (20 MHz)			15	mV RMS
Temperature Coefficient		±0.01	±0.02	% / °C
Short Circuit Protection	0.5 Second Max			
General Specifications	Min	Typ	Max	Units
Isolation Voltage, 60 seconds	1500			VDC
Isolation Resistance 500VDC	10			Gohms
Isolation Capacitance, 100kHz, 1V		60	100	pF
Operating Temperature (Ambient)	-25		+75	°C
Storage Temperature	-25		+125	°C
Humidity			95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign	2000			K Hours
Leadfree Reflow Solder Process	IPC/JEDEC J-STD-020C peak temp. 245°C/10 sec.			
Moisture Sensitivity Level (MSL) Temperature	IPC/JEDEC J-STD-20 LEVEL 3			
Cooling	Free-Air Convection			
Case Size	Single Output	0.54 x 0.37 x 0.34 inches 13.7 x 9.3 x 8.7 mm		
	Dual Output	0.64 x 0.37 x 0.34 inches 16.3 x 9.3 x 8.7 mm		
Case Material	Non Conductive Black Plastic (UL94V-0)			
Weight	Single Output	1.5g		
	Dual Output	2.2g		

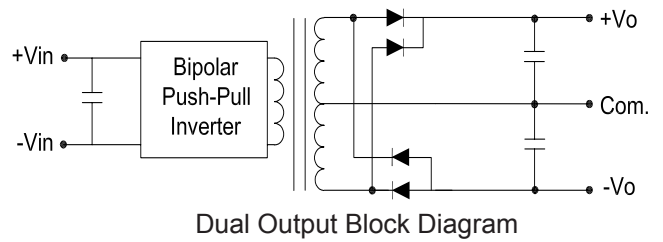
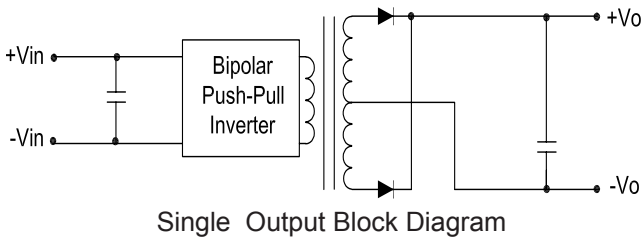
Notes:

- Specifications typical at Ta=+25°C, resistive load, nominal input voltage, full rated output current unless otherwise noted.
- ConTech power converters require a minimum output loading to maintain specified regulation. Operation under no-load conditions will not damage these modules; however, they may not meet all specifications listed.
- The series has a limitation of a maximum connected capacitance at the output. The power module may be operated in current limiting mode during start-up, affecting the ramp-up and the startup time.
- When measuring peak-to-peak output noise, use a Cout 0.33µF ceramic capacitor. Scope measurement should be made by using a BNC socket, measurement bandwidth is 0-20MHz. Position the load between 2" and 2.5" from the converter.
- Water washability - It is not recommended to use water-washing process on SML models.
- See ConTech website for Definition of Terms, Application Notes, and Test Setups and Parameters. www.ConTech-us.com/appnotes.html.
- Specifications subject to change without notice.
- See ConTech website www.ConTech.com/pdf/RoHS.pdf for RoHS Statement.

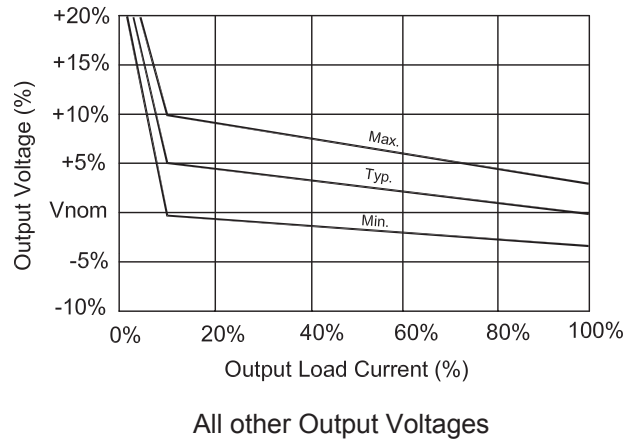
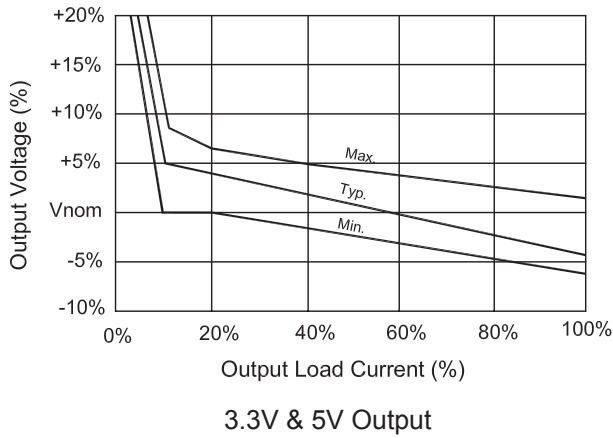
Input Fuse Selection Table	
5V Input	1000 mA Slow-Blow
12V Input	500 mA Slow-Blow
24V Input	200 mA Slow-Blow

External fusing should be used for system protection due to a catastrophic failure. See ConTech website for Fusing Application Notes to determine the correct fuse.

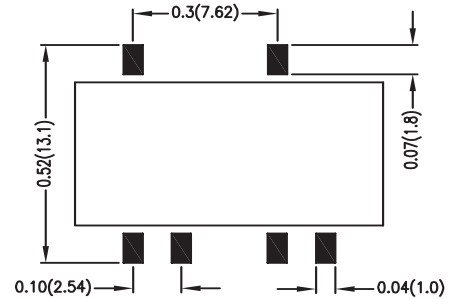
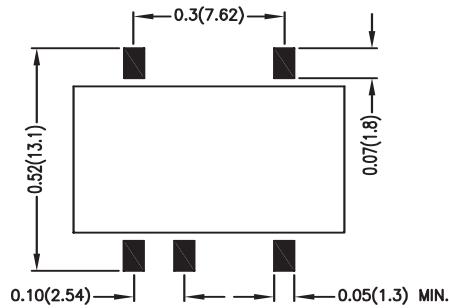
Block Diagrams



Tolerance Envelope Graphs



SMD Footprint



Dimensions are inches (mm) unless noted

Tolerance:	Inches	Millimeters
	X.XX ±0.01	X.X ±0.25
	X.XXX ±0.005	X.XX ±0.13
Pin	±0.002	±0.05