



6 Watt SMQ Single and Dual Series



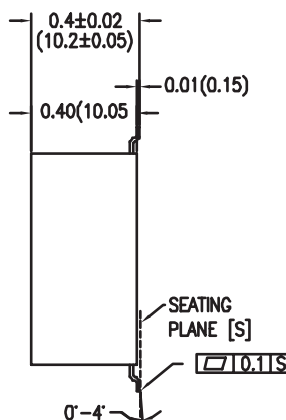
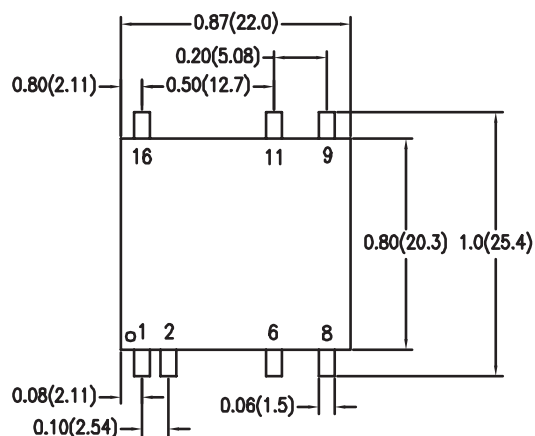
- Efficiency up to 83%
- 1500VDC Isolation
- MTBF > 350,000 Hours
- 4:1 Wide Input
- Over Load Protection
- Short Circuit Protection
- Remote On/Off Control
- CSA Approved
- RoHS Compliant



Model Number	Voltage			Current				Input Overvoltage (1000ms)	Efficiency	Capacitive Load
	Input		Output	Input		Output				
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)	Max (VDC)	@ Max Load (%, Typ)	Max (Dual each output)
SMQ5H24S3	24	9-36	3.3	30	262	218	1450	50	76	330μF
SMQ6H24S5	24	9-36	5	30	316	180	1200	50	79	330μF
SMQ6H24S12	24	9-36	12	30	301	75	500	50	83	100μF
SMQ6H24S15	24	9-36	15	30	301	60	400	50	83	100μF
SMQ6H24S24	24	9-36	24	30	301	38	250	50	83	100μF
SMQ6H24D5	24	9-36	±5	30	301	±90	±600	50	82	100μF
SMQ6H24D12	24	9-36	±12	30	301	±38	±250	50	83	100μF
SMQ6H24D15	24	9-36	±15	30	301	±30	±200	50	83	100μF
SMQ5H48S3	48	18-75	3.3	20	131	218	1450	100	76	330μF
SMQ6H48S5	48	18-75	5	20	158	180	1200	100	79	330μF
SMQ6H48S12	48	18-75	12	20	151	75	500	100	83	100μF
SMQ6H48S15	48	18-75	15	20	151	60	400	100	83	100μF
SMQ6H48S24	48	18-75	24	20	151	38	250	100	83	100μF
SMQ6H48D5	48	18-75	±5	20	151	±90	±600	100	82	100μF
SMQ6H48D12	48	18-75	±12	20	151	±38	±250	100	83	100μF
SMQ6H48D15	48	18-75	±15	20	151	±30	±200	100	83	100μF

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



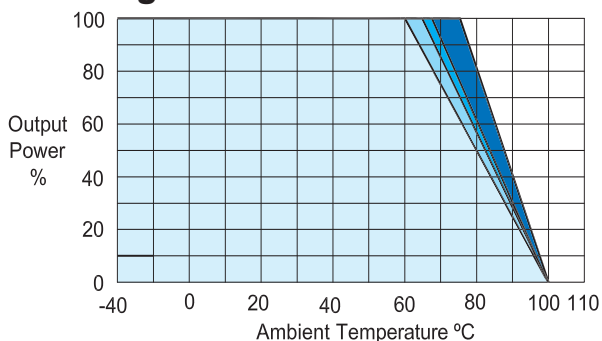
Pin Connections		
Pin	Single	Dual
1	Remote On/Off	Remote On/Off
2	-Vin	-Vin
6	NC	Common
8	NC	-Vout
9	+Vout	+Vout
11	-Vout	Common
16	+Vin	+Vin

Input Parameters	Min	Typ	Max	Units
Start Voltage 24 Vin 48 Vin			9 18	VDC
Under Voltage Shutdown 24Vin 48 Vin			8.5 17	VDC
Switching Frequency		330		kHz
Conducted EMI	Meets EN55022, Class A and FCC Part 15, Class A			
Output Parameters	Min	Typ	Max	Units
Output Voltage Accuracy		±1.0	±2.0	%
Output Voltage Balance Dual Output, Balanced Loads		±1.0		%
Load Regulation Io=15% to 100%		±0.5	±1.2	%
Line Regulation Vin=Min. to Max. @ Full Load		±0.5	±1.0	%
Ripple & Noise (20MHz)			100	mV P-P
Over Load Protection Foldback	110	150		%
Transient Recovery Time 25% Load Step Change		300	600	µs
Transient Response Deviation 25% Load Step Change		±3		%
Temperature Coefficient		±0.01	±0.02	% / °C
Short Circuit Protection	Continuous			
General Specifications	Min	Typ	Max	Units
Isolation Voltage, 60 seconds	1500			VDC
Isolation Resistance 500VDC	1000			Mohms
Isolation Capacitance, 100kHz, 1V		1200	1500	pF
Operating Temperature (Ambient)	-40		+80	°C
Operating Temperature (Case)			+105	°C
Storage Temperature	-50		+125	°C
Humidity			95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign	350			K Hours
Cooling	Free-Air Convection			
Case Size	0.87 x 0.80 x 0.40 inches 22.0 x 20.3 x 10.2 mm			
Case Material	Non-Conductive Black Plastic (UL94V-0)			
Weight	7.8g			
Agency Approvals	CSA60950 Approved			

Remote On/Off Control	Min	Typ	Max	Units
Converter On	2.5V - 50VDC or Open Circuit			
Converter Off	-0.7V - 0.8V			
Control Input Current (on) Vin - RC = 5.0V			500	µA
Control Input Current (off) Vin - RC = 0V			-550	µA
Control Common	Referenced to Negative Input			
Standby Input Current Nominal Vin			10	mA

Notes:

- Specifications typical at Ta=+25°C, resistive load, nominal input voltage, full rated output current unless otherwise noted.
- Transient recovery time is measured to within 1% error band for a step change in output load 75% to 100%.
- 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.
- Water washability - It is not recommended to use water-washing processes on SMT units.
- 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-us.com/pdf/rohs.pdf for RoHS Statement.

Derating Curve

To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 100°C.