

DC/DC Converters – S9 series

20 WATT

Single / Dual Output

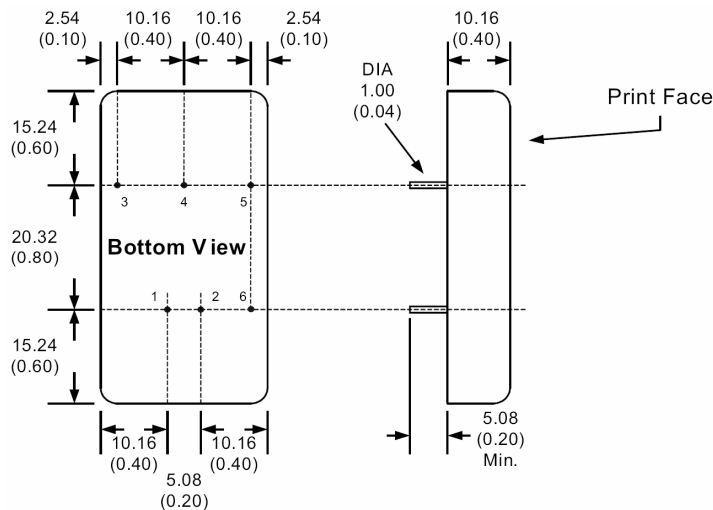
FEATURES

- Ultra Wide 4:1 Input Range
- Full SMD Technology
- 1600 VDC isolation
- No Minimum Load Required
- Efficiency up to 91 %
- Extended Operating Temperature Range – 40°C ~ 85°C max.
- Adjustable Output Voltage
- Remote On/Off Control (CTRL)
- Continuous Short Circuit Protection
- Over Current Protection
- Over Voltage Protection
- Soft Start

Model Number	Input Vdc	Output Vdc	Output Current (mA)	Efficiency @FL (%)
S9-243R3S20	9-36	3.3	5500	89
S9-2405S20		5.	4000	91
S9-2412S20		12	1670	89
S9-2415S20		15	1330	89
S9-483R3S20	18-75	3.3	5500	91
S9-4805S20		5	4000	89
S9-4812S20		12	1670	89
S9-4815S20		15	1330	89
S9-2405D20	9-36	±5	±2000	89
S9-2412D20		±12	±835	89
S9-2415D20		±15	±665	89
S9-4805D20	18-75	±5	±2000	89
S9-4812D20		±12	±835	89
S9-4815D20		±15	±665	89

Input specifications:		
Input Reflected Ripple Current		20mA p-p, typ
Filter:		Pi Type
Start Up Time		20mS, typ
Under Voltage Lockout		
24V Modes	Module ON/OFF	8.6Vdc/7.9Vdc, typ
48V Modes	Module ON/OFF	17.8Vdc/16Vdc, typ
Remote On/Off (CTRL)		
ON:		3.0...12Vdc or open circuit
OFF:		0...1.2Vdc or Short circuit pin 2and pin 6
OFF idle current:		5mA, typ
Output specifications:		
Voltage accuracy		±1%
Ripple & noise (at 20MHz BW)		75mV p-p
Short Circuit Protection		Indefinite (hiccup)
Line regulation		±0.5%
Load regulation	single:	±0.5%,load=10~100%
	dual:	±1%max (balanced load)
Temperature coefficient		±0.02%/°C
Transient recovery time:		250µS, typ
Transient response deviation		±3%, max
General Specifications:		
Efficiency		89% ~ 91%
Switching Frequency		330 kHz, Typ.
I/O isolation voltage (3 sec)		1600Vdc
Safety standard		IEC/EN 60950-1
EMC characteristics:		
Radiated Emissions	EN55022	CLASS A
Conducted Emissions	EN55022	CLASS A
ESD	EN61000-4-2	Perf. Criteria B
RS	EN61000-4-3	Perf. Criteria A
EFT	EN61000-4-4	Perf. Criteria B
Surge	EN61000-4-5	Perf. Criteria B
CS	EN61000-4-6	Perf. Criteria A
PFMF	EN61000-4-8	Perf. Criteria A
Environmental specifications:		
Operating Temperature		-40°C ~ +85°C
	100% load	-40°C ~ +66°C
Case temperature		105°C Max.
Storage Temperature		-40°C ~ +125°C
Humidity		95% rel H
Cooling		Nature Convection

MECHANICAL DIMENSIONS & PIN CONNECTIONS



PIN #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Com
5	-Vout	-Vout
6	CTRL	CTRL

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