

SH08 Series

8 W DC/DC Converters

CoolPower
Solutions

- Power Module for PCB Mountable
- 4:1 Wide Input Range
- Regulated Output
- Low Ripple and Noise
- 2-Years Product Warranty



Electrical specifications

Model No. (Single Output)	SH08-24F-3.3S	SH08-24F-5S	SH08-24F-12S	SH08-24F-15S	SH08-24F-24S
Input Voltage (V.DC.)	12V (9-36V)	12V (9-36V)	12V (9-36V)	12V (9-36V)	12V (9-36V)
Output Voltage (V.DC.)	3.3V/2200mA	5V/1600mA	12V/666mA	15V/533mA	24V/333mA
Efficiency (typ.)	82%	84%	85%	85%	85%
Capacitor Load (max)	2200µF	2200µF	1200µF	680µF	330µF

Model No. (Single Output)	SH08-48F-3.3S	SH08-48F-5S	SH08-48F-12S	SH08-48F-15S	SH08-48F-24S
Input Voltage (V.DC.)	24V (18-75V)	24V (18-75V)	24V (18-75V)	24V (18-75V)	24V (18-75V)
Output Voltage (V.DC.)	3.3V/2200mA	5V/1600mA	12V/666mA	15V/533mA	24V/333mA
Efficiency (typ.)	82%	84%	85%	85%	85%
Capacitor Load (max)	2200µF	2200µF	1200µF	680µF	330µF

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated

CoolPower

Model No. (Single Output)	SH08-24F-3.3S SH08-48F-3.3S	SH08-24F-5S SH08-48F-5S	SH08-24F-12S SH08-48F-12S	SH08-24F-15S SH08-48F-15S	SH08-24F-24S SH08-48F-24S	
Max Output Wattage (W)	8W					
Input	π type					
Output	Voltage (V.DC.)	3.3	5	12	15	24
	Voltage Accuracy	±2%				
	Current (mA) max	2200	1600	666	533	333
	Line Regulation (LL-HL) (typ.)	±0.5%				
	Load Regulation (10-100%) (typ.)	±1%				
	Minimum Load	0%				
	Ripple	50 mV max.				
	Noise	100 mV max.				
Protection	Over Power Protection	Above 105% Rated Output Power				
	Short Circuit Protection	Current limit, auto-recovery				
Isolation	Voltage	1600 VDC.				
	Resistance	108 ohms				
	Capacitance	1000 pF				
Environment	Operating Temperature	-25°C...+60°C (at Full Load)				
	Storage Temperature	-55°C...+105°C				
	Case Temperature	+100°C max.				
	Temperature Coefficient	±0.02% Per°C				
	Humidity	95% RH				
Physical	MTBF	>800,000 h @ 25°C (MIL-HDBK-217F)				
	Dimension (L x W x H)	1.25 x 0.8 x 0.44 Inches (31.8 x 20.3 x 11.2 mm) Tolerance ±0.5 mm				
	Case Material	Nickel-Coated Copper with Non-Conductive Base, Six-side shielded.				
	Weight	20 g				
	Cooling Method	Free-air convection				

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

SH08 Series

8 W DC/DC Converters

CoolPower
Solutions

Model No. (Dual Output)	SH08-24F-5D	SH08-24F-12D	SH08-24F-15D
Input Voltage (V.DC.)	12V (9-36V)	12V (9-36V)	12V (9-36V)
Output Voltage (V.DC.)	±5V / ±800mA	±12 / ±333mA	±15 / ±267mA
Efficiency (typ.)	82%	84%	84%
Capacitor Load (max)	1000µF	220µF	100µF

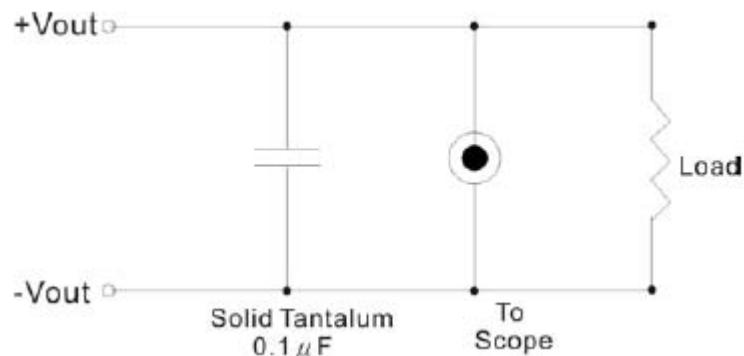
Model No. (Dual Output)	SH08-48F-5D	SH08-48F-12D	SH08-48F-15D
Input Voltage (V.DC.)	24V (18-75V)	24V (18-75V)	24V (18-75V)
Output Voltage (V.DC.)	±5V / ±800mA	±12 / ±333mA	±15 / ±267mA
Efficiency (typ.)	82%	85%	84%
Capacitor Load (max)	1000µF	220µF	100µF

Model No.	(Dual Output)	SH08-24F-5D SH08-48F-5D	SH08-24F-12D SH08-48F-12D	SH08-24F-15D SH08-48F-15D
Max Output Wattage (W)		8W		
Input		Input Filter π type		
Output	Voltage (V.DC.)	±5	±12	±15
	Voltage Accuracy	±2%		
	Current (mA) max	±800	±333	±267
	Line Regulation (LL-HL) (typ.)	±0.5%		
	Load Regulation (10-100%) (typ.)	±1%	±1%	±1%
	Minimum Load	0%		
	Ripple	50 mV max (Vp-p)		
	Noise	<0.5% Vout +50mV max (Vp-p)		
Protection	Switching Frequency	300KHz		
	Over Power Protection	Works over 120% of rating and recovers automatically.		
Isolation	Short Circuit Protection	Current limit, auto-recovery		
	Voltage	1600 VDC.		
	Resistance	108 ohms		
Environment	Capacitance	1000 pF		
	Operating Temperature	-25°C...+60°C (at Full Load)		
	Storage Temperature	-55°C...+105°C		
	Case Temperature	+100°C max.		
	Temperature Coefficient	±0.02% Per°C		
	Humidity	95% RH		
Physical	MTBF	>800,000 h @ 25°C (MIL-HDBK-217F)		
	Dimension (L x W x H)	1.25 x 0.8 x 0.44 Inches (31.8 x 20.3 x 11.2 mm) Tolerance ±0.5 mm		
	Case Material	Nickel-Coated Copper with Non-Conductive Base, Six-side shielded.		
	Weight	20 g		
Cooling Method		Free-air convection		

All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Output noise

The output noise is measured with 0.1µF tantalum capacitor

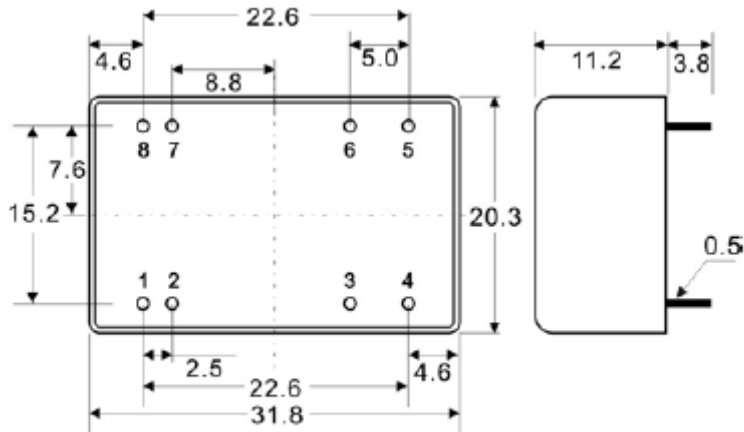


SH08 Series

8 W DC/DC Converters

CoolPower
Solutions

Mechanical Specifications (top view)



Tolerance ± 0.5 mm

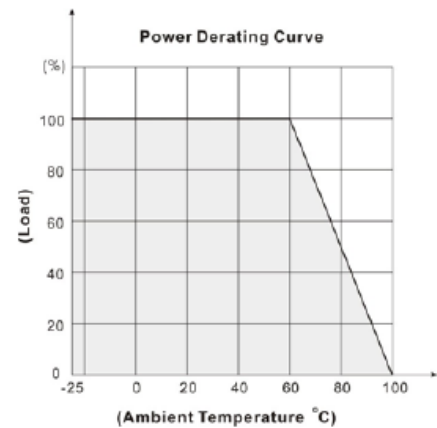
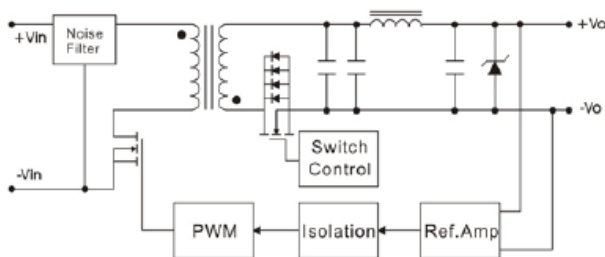
Pin no:	Single	Dual
1	-Vin	-Vin
2	-Vin	-Vin
3	No Pin	Common
4	NC	-Vout
5	+Vout	+Vout
6	-Vout	Common
7	+Vin	+Vin
8	+Vin	+Vin

Block Diagram

CoolPower
Solutions

Derating

Single Output



Dual Outputs

