

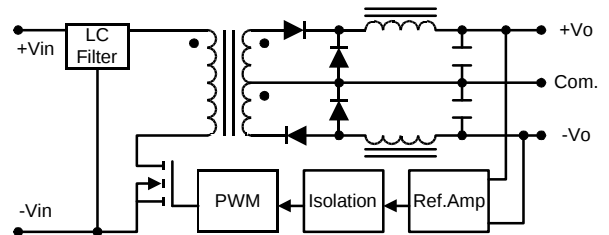
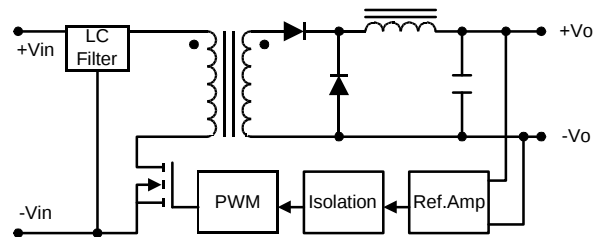
TOTAL POWER INT'L

S4C00R Series 10 Watt 2:1 Wide Input Range DC/DC Converters

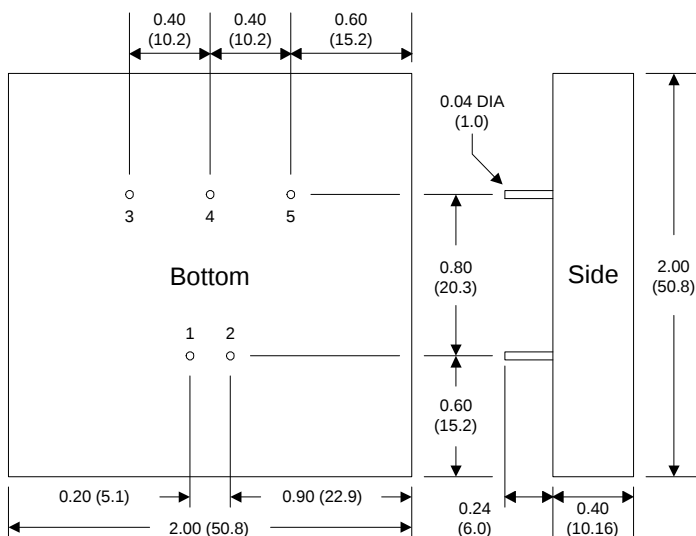
Single & Dual Output

Key Features

- 2:1 Input Range
- High Efficiency up to 80 %
- I / O Isolation 500VDC
- Short Circuit Protected
- Six - Side Shielded Case
- Low Cost
- MTBF > 300,000 Hours



Mechanical Configuration



All dimensions typical in inches (mm). Tolerance= +/- 0.01 (+/- 0.25)

Pin Connections

Pin	Single Output	Dual Output
1	+Input	+Input
2	-Input	-Input
3	+Output	+Output
4	NC	Common
5	-Output	-Output
NC:No Connection.		

Physical Characteristics

Case Size	50.8×50.8×10.2 mm 2.0×2.0×0.4 inches
Case Material	Metal With Non-Conductive Base
Weight	60g

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Absolute Maximum Ratings

Exceeding these values can damage the module. These are not continuous operating ratings.

Parameter		Min.	Max.	Unit.
Input Surge Voltage (1000 mS)	12VDC Input Models	-0.7	21	VDC
	24VDC Input Models	-0.7	42	VDC
	48VDC Input Models	-0.7	84	VDC
Internal Power Dissipation		---	5000	mW

Environmental Specifications

Parameter	Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-40	---	+71	°C
Storage Temperature		-40	---	+105	°C
Humidity		---	---	95	%
Cooling	Free-Air Convection				

Model Selection Guide

Model Number	Input voltage VDC	Output Voltage VDC	Output Current mA (Max.)	Output Current mA (Min.)	Input Current Max. Load mA (Typ.)	Input Current No Load mA (Typ.)	Reflected Ripple Current mA (Typ.)	Efficiency % (Typ.)
S4C01R	12 (9 ~ 18)	5	2000	200	1160	25	100	72
S4C02R		9	1100	110	1115			74
S4C03R		12	800	80	1055			76
S4C04R		15	660	66	1075			77
S4C05R		±12	±400	±40	1055			76
S4C06R		±15	±330	±33	1075			77
S4C07R	24 (18 ~ 36)	5	2000	200	565	25	50	74
S4C08R		9	1100	110	545			76
S4C09R		12	800	80	515			78
S4C10R		15	660	66	525			79
S4C11R		±12	±400	±40	515			78
S4C12R		±15	±330	±33	530			78
S4C13R	48 (36 ~ 75)	5	2000	200	275	10	25	76
S4C14R		9	1100	110	270			77
S4C15R		12	800	80	255			79
S4C16R		15	660	66	260			80
S4C17R		±12	±400	±40	250			80
S4C18R		±15	±330	±33	260			80

Specifications typical at Ta=+25 J , resistive load, nominal input voltage, rated output current unless otherwise noted.

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Input Specifications

Parameter	Model	Min.	Typ.	Max.	Unit
Start Voltage	12V Input Models	8	8.5	9	VDC
	24V Input Models	14	16	18	
	48V Input Models	25	30	36	
Under Voltage Shutdown	12V Input Models	7	8	8.5	
	24V Input Models	13	15	17	
	48V Input Models	24	29	34	
Reverse Polarity Input Current	All Models	----	----	2	A
Short Circuit Input Power		----	----	4000	mW
Input Filter		Pi Filter			

Output Specifications

Parameter	Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy		----	±0.5	±1	%
Output Voltage Balance	Dual Output Balance Load	----	±0.5	±1	%
Line Regulation	Vin=Min. to Max.	----	±0.1	±0.2	%
Load Regulation	Io=10% to 100%	----	±0.2	±0.5	%
Ripple & Noise (20MHz)		----	65	100	mV P-P
Ripple & Noise (20MHz)	Over Line, Load & Temp.	----	----	120	mV P-P
Ripple & Noise (20MHz)		----	----	10	mV rms.
Over Load		120	----	----	%
Transient Recovery Time	25% Load Step Change	----	250	500	uS
Transient Response Deviation		----	±1.5	±3	%
Temperature Coefficient		----	±0.01	±0.02	%/°C
Output Short Circuit	Continuous				

General Specification

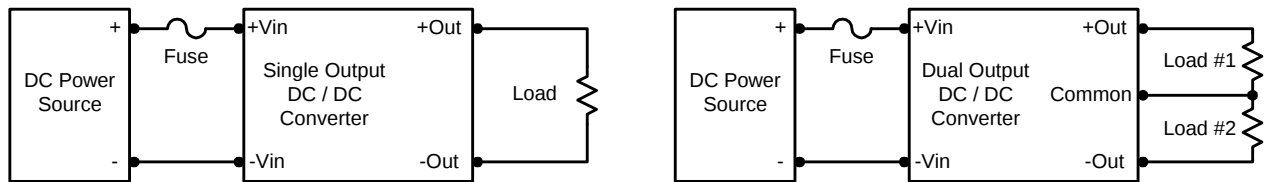
Parameter	Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	60 Seconds	500	----	----	VDC
Isolation Resistance	500VDC	1000	----	----	MΩ
Isolation Capacitance	100KHz, 1V	----	500	650	pF
Switching Frequency		75	100	120	KHz

Input Fuse Selection Guide

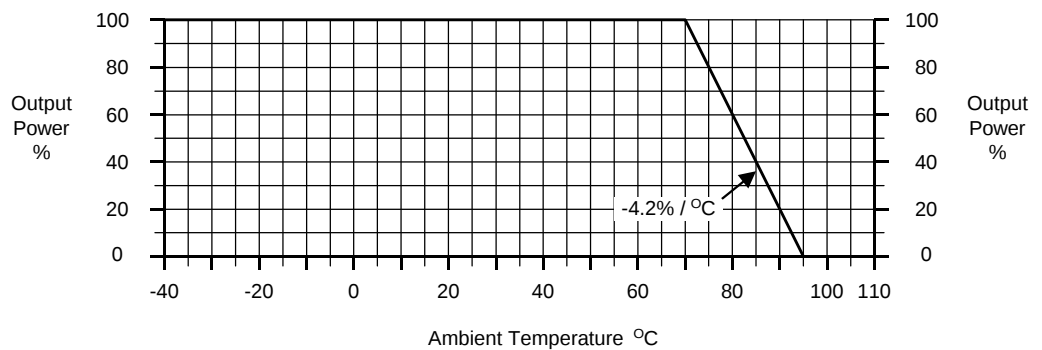
12V Input Models	24V Input Models	48V Input Models
3000mA Slow – Blow Type	1500mA Slow – Blow Type	750mA Slow – Blow Type

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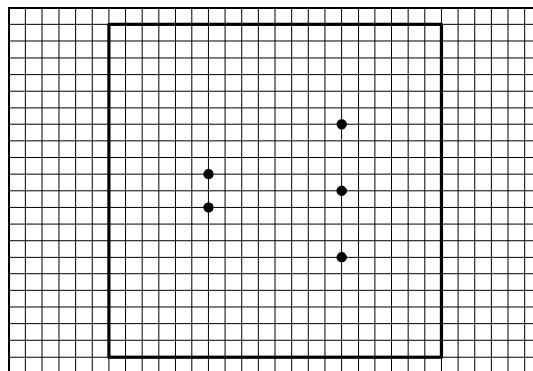
Typical Applications



Derating Curve



Connecting Pin Patterns (2.54 mm / 0.1 inch grids)



NOTE:

1. Specifications typical at $T_a = +25^\circ\text{C}$, resistive load, nominal input voltage, rated output current unless otherwise noted.
2. Transient recovery time is measured to within 1% error band for a step change in output load of 75% to 100%.
3. When measure output ripple & noise, an external 0.1uF ceramic capacitor is recommended to be placed from +Vout to -Vout (single output) and each output to common (dual output).
4. Other input and output voltage may be available, Please contact factory.
5. Specifications subject to change without notice.