



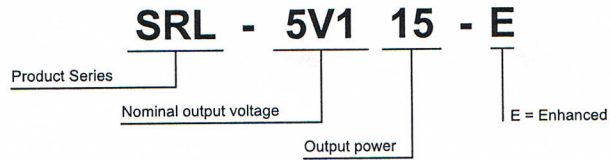
DC/DC Regulator SRL3A-E Series

- * DC/DC module without galvanic separation
- * High efficiency
- * Short circuit proof
- * Fast action feed-back module
- * No derating up to 85°C ambient temperature
- * Very low out-put ripple
- * Standard pinout
- * EMC according to EN55022/14 Class B
- * Inhibit optinal

Product Range

Model	Input		I _{in} @ U _{in} nom.		U _{out}	Output		Efficiency typ.	Max. capacity
	nominal	range	full load	no load		I _{out} max.	power		
Single									
SRL3V310-E	24VDC	6...40VDC		15mA	3.3VDC	3.0A	10W	91%	
SRL5V115-E	24VDC	8...40VDC		15mA	5.1VDC	3.0A	15W	91%	
SRL1236-E	24VDC	15...40VDC		20mA	12VDC	3.0A	36W	92%	
SRL1545-E	24VDC	18...40VDC		20mA	15VDC	3.0A	45W	93%	

Nomenclature



Specifications

All values refer to an ambient temperature of 25°C and nominal rated values where nothing else is specified.

Input Specifications

Characteristic		Conditions	min	typ	max	unit
U_{IN}	Input voltage		6 / 8 / 15 / 18	24	40	V
U_{UVLO}	Under voltage lockout					V
	Max. input current at full load					A
	No load input current		See	product	range	mA

Output Specifications

Characteristic		Conditions	min	typ	max	unit
U_{ACC}	Output voltage accuracy		±1.5			%
	Output voltage adjust		±10			%
	Line regulation				±0.1	%
	Load regulation				±1	%
	Load transient recovery time					us
	Load transient error band					%
	Temperature coefficient			±0.01		%/K
	Ramp up time			10		ms
	Start up time			15		ms
	Ripple and noise	10nF 100nF on Vout	3.3&5.1V: 40, 12&15V: 80			mVpp
	Current limit			120		%
	Over voltage protection			None		%
	Short circuit protection			50		%
	Short circuit characteristic		continuous			

General Specifications

Characteristic		Conditions	min	typ	max	unit
U_{ISO}	Isolation voltage		None			V
R_{ISO}	Isolation resistance		None			Ohm
F_{SW}	Switching frequency		tbd			KHz
	Approvals					
	Safety Approvals					
	MTBF		tbd			h

	Case material		Plastic UL94-V0	
	Compound material		Two component resin UL94-V0	
	PCB material		FR4 UL94-V0	
	Weight		tbd	gr
	Dimensions		50.8 x 25.4x 10.2	mm
	Soldering infos		275°C for 10	s

EMC Specifications

Characteristic		Conditions	min	typ	max	unit
	EMC conducted	See EMC information	EN55022/11 Class B			

Environmental Specifications

Characteristic		Conditions	min	typ	max	unit
T _{AMB}	Operation temperature	Max. case temp. < 100°C	-40...+85			°C
T _{AMB}	Storage temperature		-40...+100			°C
T _{SD}	Thermal shutdown range		-			°C

Own notes

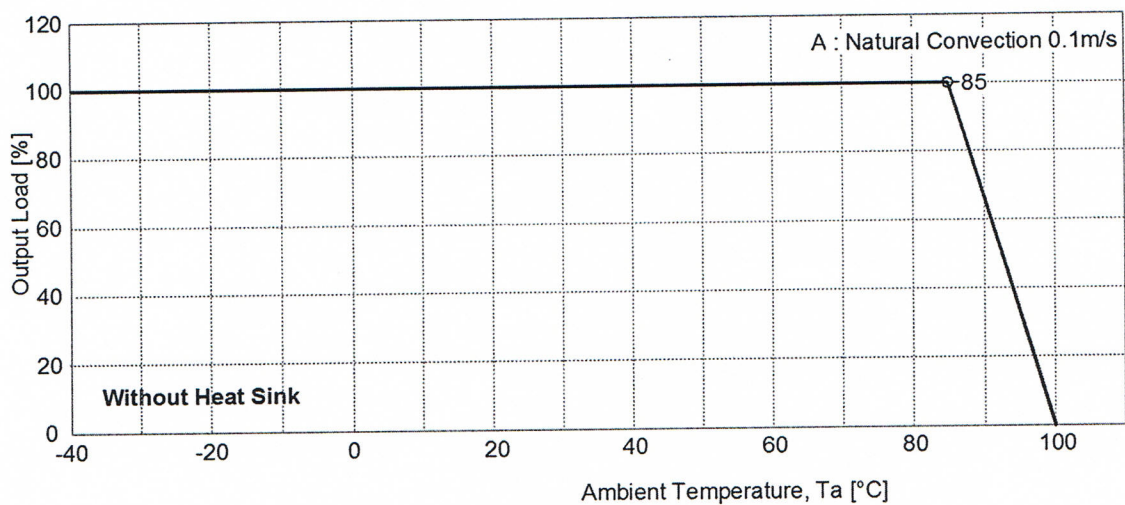
EMC information

No EMC graph available yet, please contact factory

No EMC filter available yet, please contact factory

Derating

The operating case temperature range of SRL3A-E series is $-40\dots+85^{\circ}\text{C}$. When operating the SRL3A-E series, proper derating or cooling is needed. The following curves are the derating curves of SRL3A-E. Please note that these are relative values in a test environment. Ambient temperature can not be exactly defined in an application, only the case temperature.

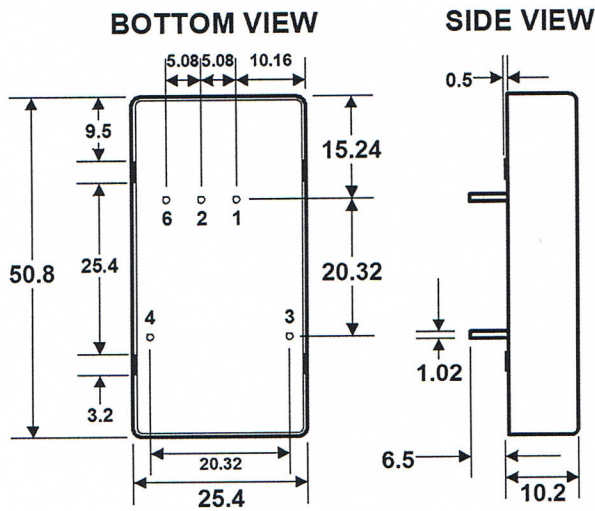


Own notes

Case

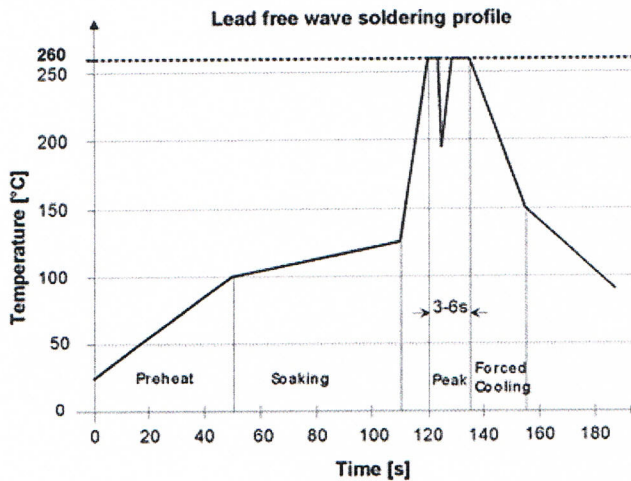
Normal tolerance 1/10 ±0.5 mm, 1/100 ±0.25 mm; Pin tolerance ±0.5 mm diameter

NP = No pin, NC = Not connected, NA = Not available for electrical contact, do not connect



Pin	Single
1	+Vi
2	Gi
3	+Vo
4	Go
6	Inh (optional)

Soldering



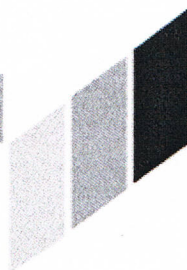
1. Soldering Materials: Sn/Cu/Ni
2. Preheat: 1.4 °C/s (From 30°C to 100°C)
3. Soaking: 0.5 °C/s (From 100°C to 130°C), 60 ±20s
4. Peak temperature: 260°C, above 250°C 3~6s
5. Forced cooling: -10.0 °C/s (From 260°C to 150°C)

Cleaning

The modules are cleanable with the today's known and in the electronics industry usually used products. Due to the different cleaning processes and new available products, we highly recommend to do a compatibility test when using the converters the first time.

Notice: All statements, technical information, and recommendations related to FABRIMEX's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use.

Switzerland:
FABRIMEX AG - Techcenterstr. 2
CH-8608 Bubikon
Tel: +41 55 253 31 90 - Fax: +41 55 253 31 91
www.fabrimex.com
info@fabrimex.ch



FABRIMEX
POWER SUPPLIES

Germany:
CAC FABRIMEX GmbH - Karlstrasse 70
D-89543 Gerstetten
Tel: +49 7323 95000 - Fax: +49 7323 95050
www.fabrimex.de
info@cac-fabrimex-ger.de