



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SR Series



- 3 Pin SIP 3T Switching Regulator
- Wide Input Range
- Continuous Short-circuit Protection
- Pin Compatible with LM78MXX
- Efficiency up to 97%
- -40 °C to +85 °C Operating Temperature
- 3 Year Warranty

Specification

Input

- Input Voltage Range • See table
- Input Current • See table
- Input Reflected Ripple • SR05: 35 mA pk-pk, SR10: 40 mA pk-pk, through 12 μ H inductor, 5 Hz to 20 MHz
- Input Filter • External capacitor (see application notes)

Output

- Output Voltage • See table
- Minimum Load • No minimum load required
- Line Regulation • $\pm 0.5\%$ max
- Load Regulation • $\pm 0.6\%$ from 10% to 100% load
- Setpoint Accuracy • $\pm 2\%$
- Turn-on Time • See note 6
- Ripple & Noise • 60 mV pk-pk with 10% minimum load, 20 MHz bandwidth
- Maximum Capacitive Load • 220 μ F
- Short Circuit Protection • Indefinite (automatic recovery)
- Temperature Coefficient • 0.02%/°C

General

- Efficiency • See table
- Isolation Voltage • Non-isolated
- Switching Frequency • 330 kHz typical
- Package Style • 3 pin SIP
- MTBF • >4.5 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

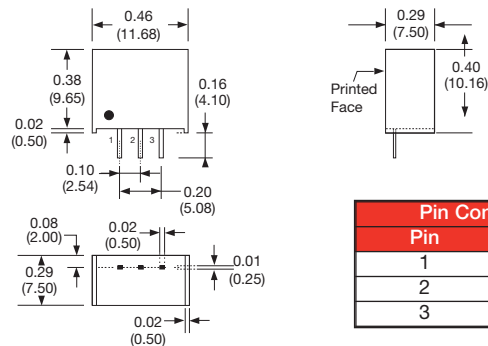
- Operating Temperature • SR05: -40 °C to +85 °C, SR10: -40 °C to +60 °C,
- Operating Humidity • 95% RH
- Case Temperature • +100 °C max
- Storage Temperature • -40 °C to +125 °C
- Cooling • Convection-cooled

Notes

1. All dimensions in inches (mm)
2. Weight: 0.004 lbs (1.8 g)
3. Pin pitch tolerance: ± 0.014 (± 0.35)
4. Case tolerance: ± 0.02 (± 0.5)
5. Efficiency range given for maximum V_{in} to minimum V_{in}
6. For maximum reliability, ensure turn on time is > 1 ms by placing a 47 μ F capacitor between +Vin and GND

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency ⁹	Model Number
4.75-34 VDC	10 mA	1.5 V	500 mA	64-79%	SR05S1V5
4.75-34 VDC	10 mA	1.8 V	500 mA	66-82%	SR05S1V8
4.75-34 VDC	10 mA	2.5 V	500 mA	72-87%	SR05S2V5
4.75-34 VDC	10 mA	3.3 V	500 mA	77-91%	SR05S3V3
6.50-34 VDC	10 mA	5.0 V	500 mA	83-94%	SR05S05
8.00-34 VDC	10 mA	6.5 V	500 mA	85-95%	SR05S6V5
9.00-34 VDC	10 mA	7.2 V	500 mA	86-95%	SR05S7V2
11.00-34 VDC	10 mA	9.0 V	500 mA	88-96%	SR05S09
15.00-34 VDC	10 mA	12.0 V	500 mA	91-96%	SR05S12
18.00-34 VDC	10 mA	15.0 V	500 mA	92-97%	SR05S15
4.75-18 VDC	15 mA	1.5 V	1000 mA	71-78%	SR10S1V5
4.75-18 VDC	15 mA	1.8 V	1000 mA	75-82%	SR10S1V8
4.75-18 VDC	15 mA	2.5 V	1000 mA	80-87%	SR10S2V5
4.75-18 VDC	15 mA	3.3 V	1000 mA	83-90%	SR10S3V3
6.50-18 VDC	15 mA	5.0 V	1000 mA	88-93%	SR10S05

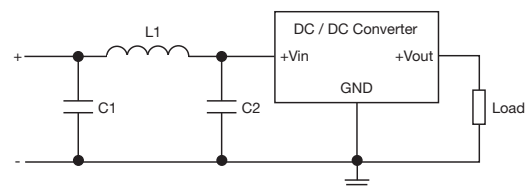
Mechanical Details



Pin Connections	
Pin	Function
1	+Vin
2	GND
3	+Vout

Application Notes

Input Filter to meet Class B Conducted Emissions



C1	L1	C2
470 μ F, 35 V	6.4 μ H	470 μ F, 35 V