LAR SERIES

5W REGULATED

DANUBE

FEATURES

- DUAL IN LINE PACKAGE
- UP TO 5W REGULATED OUTPUT POWER
- NO EXTERNAL COMPONENTS REQUIRED
- 100% BURNED IN
- HIGH EFFICIENCY
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE

RoHS COMPLIANT

OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-3% max
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW)	100mVp-p max
Line Regulation[1]	+/-1% max
Load Regulation[2]	+/-1% max
Minimum Load	10% of Full Load
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic
Transient Response[4]	200uS max

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C to +71°C
Storage Temperature	-55°C to +125°C
Humidity	95% max
Cooling	Free-Air Convection

INPUT SPECIFICATIONS

Input Voltage Range	+/-10% max
Input Filter	Pi Network
Protection	Fuse Recommended

GENERAL SPECIFICATIONS

Efficiency	58% min
Isolation Voltage[3]	1500VDC min
Isolation Resistance	10^9 ohms min
Isolation Capacitance	120pF max
Switching Frequency	50 KHz min
MTBF[5]	>750,000 Hours
Weight	31.2g
Case Material	Non-Conductive Plastic
Case Size	23.5mm*40.5mm*10.2mm
Potting Material	Epoxy(UL94-V0)
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25°C UNLESS OTHERWISE NOTED.

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[1] *High Line to Low Line.*
[2] *Load Regulation is for output load current change from 10% to 100%.*
[3] *For 10 seconds.*
[4] *25% Step Load Change.*
[5] *MIL-HDBK-217F @25 °C , Ground Benign.*

SELECTION GUIDE
5W OUTPUT

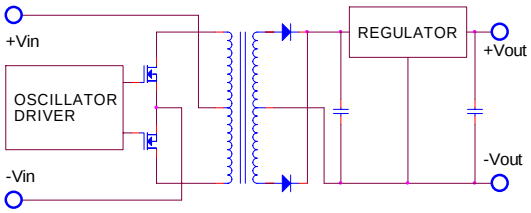
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
LARS-0505	4.5-5.5	5	1000	1596	60	63	1500
LARS-0512	4.5-5.5	12	417	1562	60	64	1500
LARS-0515	4.5-5.5	15	333	1562	60	64	1500
LARD-0505	4.5-5.5	+/-5	+/-500	1596	60	63	1500
LARD-0512	4.5-5.5	+/-12	+/-208	1562	60	64	1500
LARD-0515	4.5-5.5	+/-15	+/-167	1562	60	64	1500
LARS-1205	10.8-13.2	5	1000	661	40	63	1500
LARS-1212	10.8-13.2	12	417	651	40	64	1500
LARS-1215	10.8-13.2	15	333	641	40	65	1500
LARD-1205	10.8-13.2	+/-5	+/-500	661	40	63	1500
LARD-1212	10.8-13.2	+/-12	+/-208	641	40	64	1500
LARD-1215	10.8-13.2	+/-15	+/-167	641	40	64	1500
LARS-2405	21.6-26.4	5	1000	331	30	63	1500
LARS-2412	21.6-26.4	12	417	325	30	64	1500
LARS-2415	21.6-26.4	15	333	325	30	64	1500
LARD-2405	21.6-26.4	+/-5	+/-500	331	30	63	1500
LARD-2412	21.6-26.4	+/-12	+/-208	325	30	64	1500
LARD-2415	21.6-26.4	+/-15	+/-167	325	30	64	1500

Note: Other input to output voltages may be available. Please contact factory.

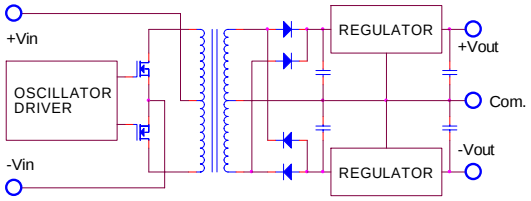
[6] *NOMINAL INPUT VOLTAGE.*
[7] *NOMINAL INPUT VOLTAGE, FULL LOAD.*

SIMPLIFIED SCHEMATIC

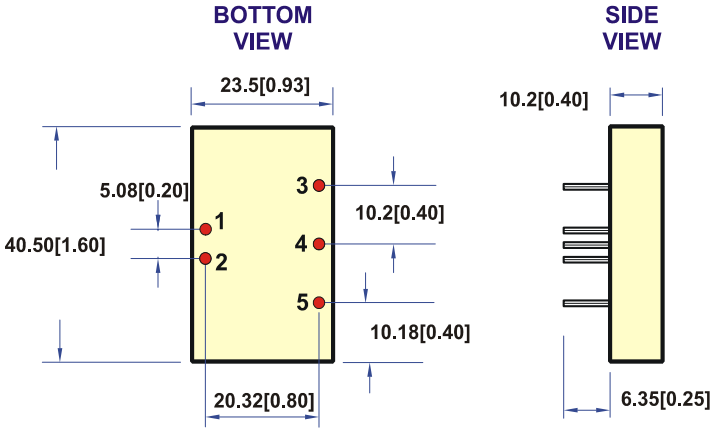
SINGLE OUTPUT



DUAL OUTPUT

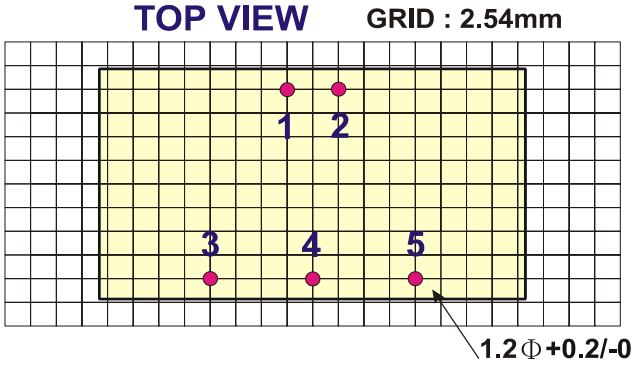


MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



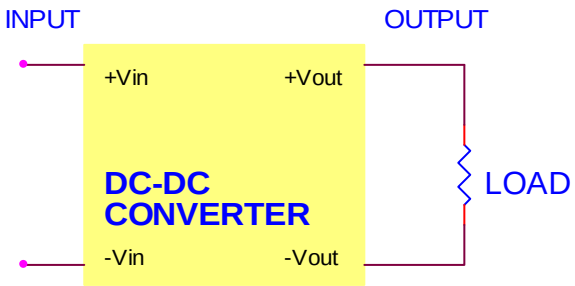
PIN	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	NO PIN	Common
5	-Vout	-Vout

All dimensions are in millimeters[inches]

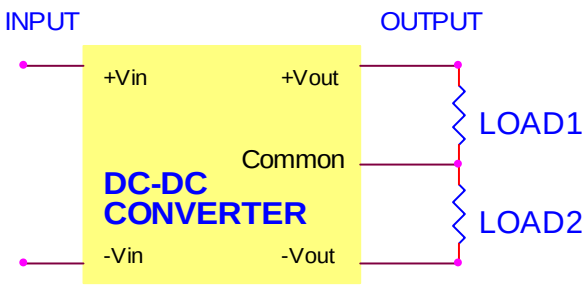


TYPICAL APPLICATIONS

SINGLE OUTPUT



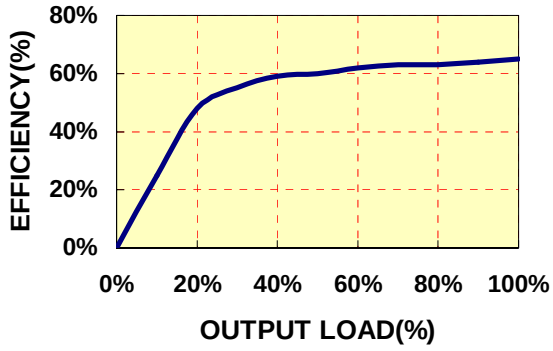
DUAL OUTPUT



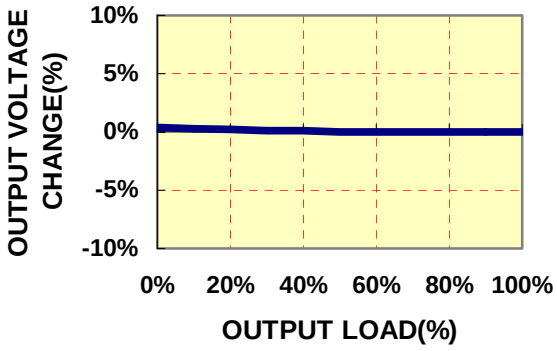
● TYPICAL PERFORMANCE CURVES

Specifications typical at Ta=25 °C, nominal input voltage , rated output current unless otherwise specified.

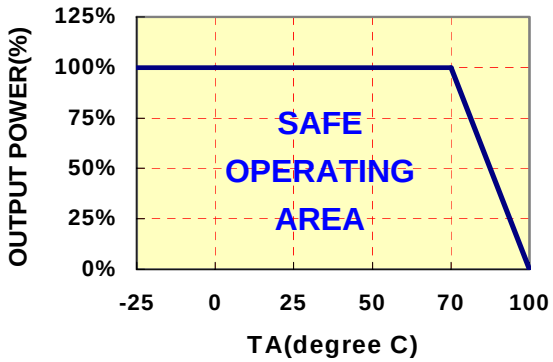
OUTPUT LOAD VS EFFICIENCY



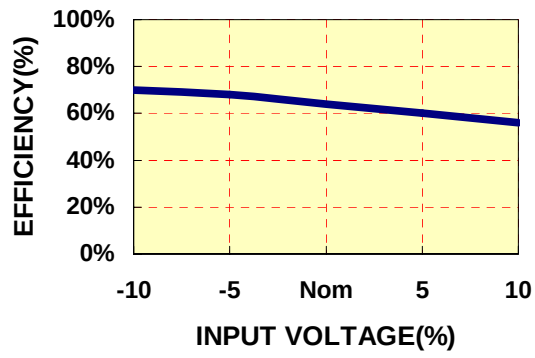
OUTPUT LOAD VS OUTPUT VOLTAGE



TEMPERATURE DERATING

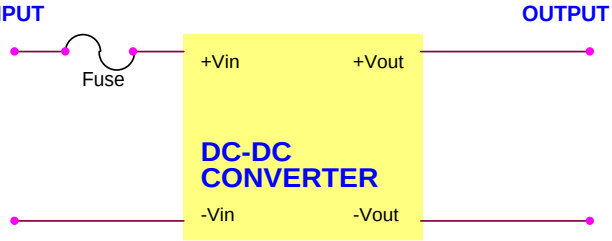


INPUT VOLTAGE VS EFFICIENCY



● INPUT FUSE SELECTION GUIDE

4.5-5.5V INPUT VOLTAGE(VDC)	10.8-13.2V INPUT VOLTAGE(VDC)	21.6-26.4V INPUT VOLTAGE(VDC)
2800mA Slow-Blow Type	1100mA Slow-Blow Type	600mA Slow-Blow Type



Note: Certain applications may require the installation of external fuse in front of the input.

LAR SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the LAR.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 200KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 1000uF.

We Can Offer EMC-Filter According To EN55011/22 Class B.

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

FOR MORE INFORMATION CALL:

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