

CER SERIES

1.5W REGULATED

DANUBE

FEATURES

- DUAL IN LINE PACKAGE
- UP TO 1.5W REGULATED OUTPUT POWER
- 100% BURNED IN
- HIGH EFFICIENCY
- LOW COST
- FIVE-SIDED SHIELD TO REDUCE EMI
- NO EXTERNAL COMPONENTS
- LOW NOISE
- 1000VDC ISOLATION
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE



OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-3% max
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW) ¹	100mVp-p max
Line Regulation ²	+/-1% max
Load Regulation ³	+/-1% max
Minimum Load	10% of Full Load
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic
Transient Response ⁵	200uS max

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C to +71°C
Storage Temperature	-55°C to +125°C
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 ⁴	1500 VDC min
Isolation Resistance	10 ⁹ ohms min
Isolation Capacitance	80pF max
Switching Frequency	50KHz min
MTBF ⁶	>850,000 Hours
Weight	12.0g-14.4g
Case Material	Non-Conductive Plastic Or Five-Sided Shield Case
Case Size	31.8mm*20.3mm*10.2mm
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

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

¹ Measured with 1uF ceramic capacitor connect to the output pins.

² High Line to Low Line.

³ Load Regulation is for output load current change from 10% to 100%.

⁴ For 10 seconds.

⁵ 25% Step Load Change.

⁶ MIL-HDBK-217F @25 °C, Ground Benign.

● **SELECTION GUIDE**
1.5W OUTPUT

MODEL NUMBER ⁷	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁸		EFF (%) ⁹	ISOLATION (VDC)
				CURRENT(mA)			
				FULL LOAD	NO LOAD		
CERS-0505(M)	4.5-5.5	5	300	500	40	60	1500
CERS-0512(M)	4.5-5.5	12	125	490	40	61	1500
CERS-0515(M)	4.5-5.5	15	100	490	40	61	1500
CERS-0524(M)	4.5-5.5	24	63	490	40	61	1500
CERD-0512(M)	4.5-5.5	+/-12	+/-63	490	40	61	1500
CERD-0515(M)	4.5-5.5	+/-15	+/-50	490	40	61	1500
CERS-1205(M)	10.8-13.2	5	300	205	15	61	1500
CERS-1212(M)	10.8-13.2	12	125	195	15	64	1500
CERS-1215(M)	10.8-13.2	15	100	195	15	64	1500
CERS-1224(M)	10.8-13.2	24	63	195	15	64	1500
CERD-1212(M)	10.8-13.2	+/-12	+/-63	195	15	64	1500
CERD-1215(M)	10.8-13.2	+/-15	+/-50	190	15	66	1500
CERS-2405(M)	21.6-26.4	5	300	100	10	63	1500
CERS-2412(M)	21.6-26.4	12	125	95	10	66	1500
CERS-2415(M)	21.6-26.4	15	100	95	10	66	1500
CERS-2424(M)	21.6-26.4	24	63	95	10	66	1500
CERD-2412(M)	21.6-26.4	+/-12	+/-63	95	10	66	1500
CERD-2415(M)	21.6-26.4	+/-15	+/-50	93	10	67	1500

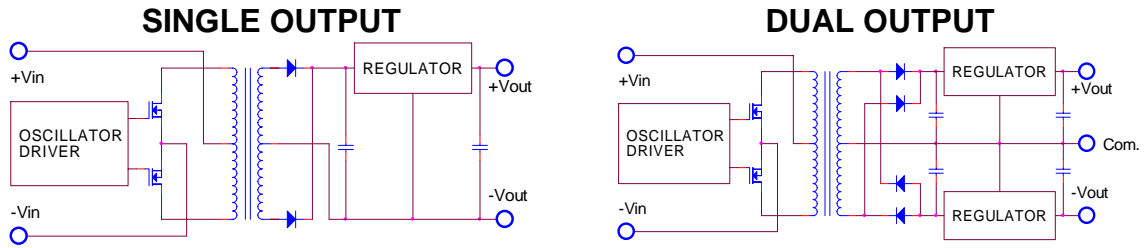
Note: Other input to output voltages may be available. Please contact factory.

⁷ CER*.**** ----- Non-Conductive Plastic CER*.****M ----- Five-sided shield case

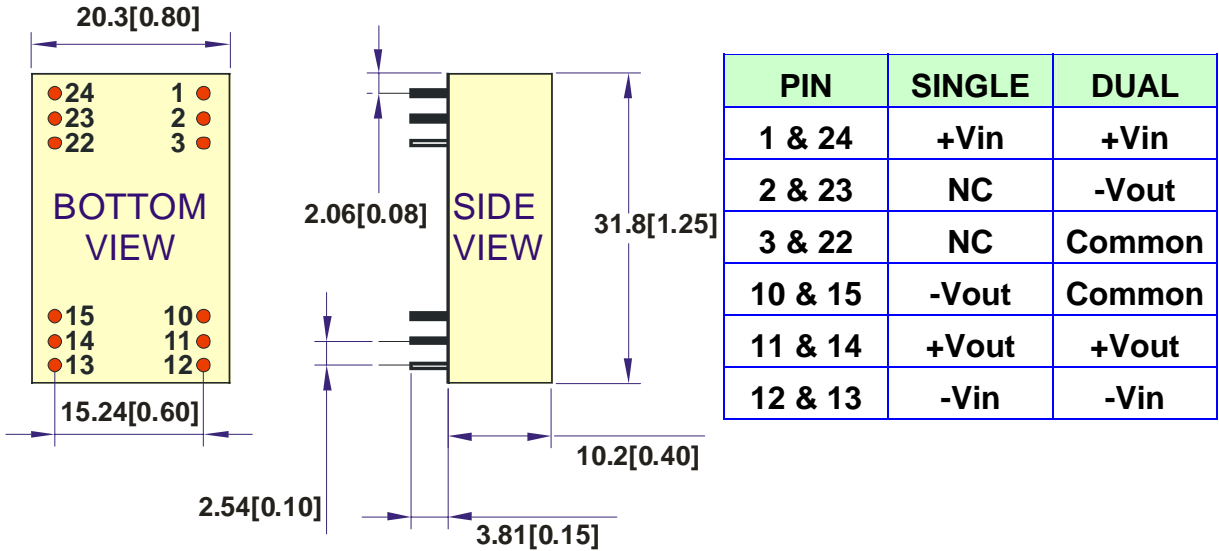
⁸ NOMINAL INPUT VOLTAGE.

⁹ NOMINAL INPUT VOLTAGE, FULL LOAD.

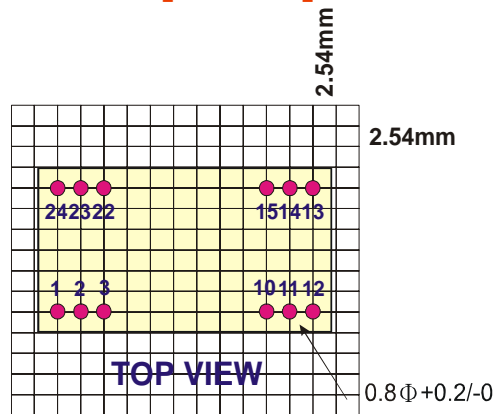
● SIMPLIFIED SCHEMATIC



● MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

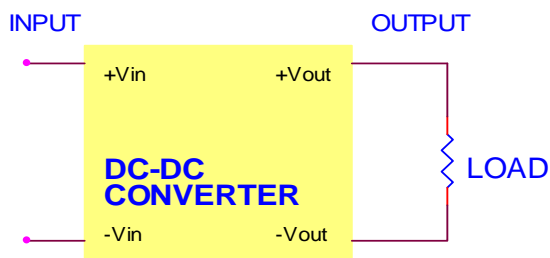


All dimensions are in mm[inches]

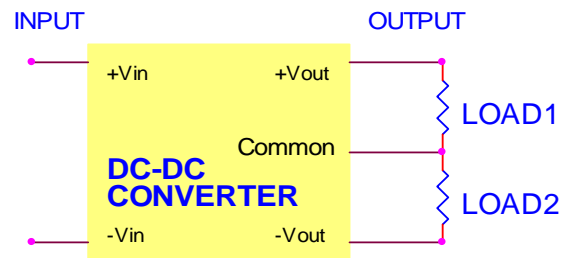


● TYPICAL APPLICATIONS

SINGLE OUTPUT



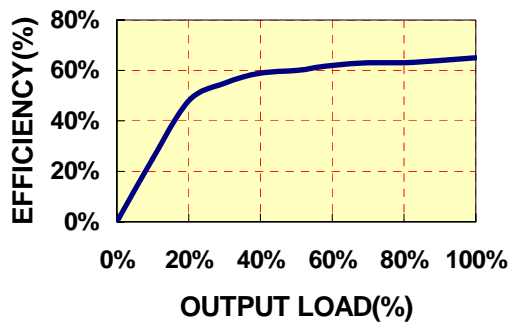
DUAL OUTPUT



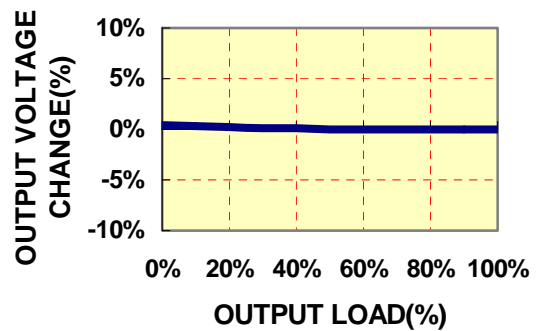
● TYPICAL PERFORMANCE CURVES

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

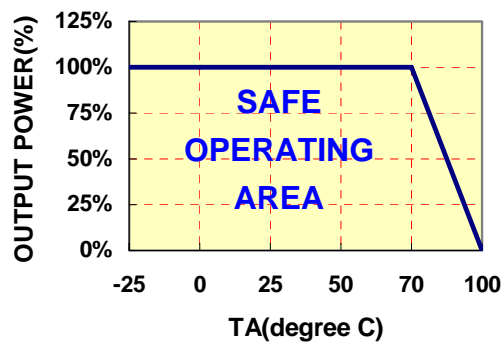
OUTPUT LOAD VS EFFICIENCY



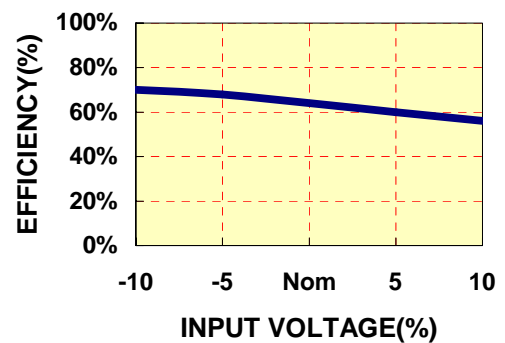
OUTPUT LOAD VS OUTPUT VOLTAGE



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)
750mA Slow-Blow Type	300mA Slow-Blow Type	200mA Slow-Blow Type

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

CER SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the CER series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz 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 220uF.

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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Home Page

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