Reinforced Dual-Output 2W DC/DC Converters

SMD Reinforced 4KV Unregulated Dual Output 2Watt DC/DC Converters

HALO ELECTRONICS, INC.



Images are for reference only

Product Features:

- DC/DC Dual Output 2W Unregulated
- 4KVDC Isolation, Reinforced Insulation
- 2MOPP Clearance/Creepage 5/8mm
- Operating Temperature -40C to +105C
- High Efficiency & Low Ripple/Noise
- Continuous Short-Circuit Protection
- UL/EN62368 Pending

2 Watt, Dual-Output, 4000VDC Isolation

Part Number	Input Voltage[1]	Output Voltage	Input Current No-Load/Full-Load	Max Output Current	Output Ripple/Noise[2]	Efficiency @ Full Load
DCR24-V0303DLF	3.3V	±3.3V	4 / 760mA	±300mA[3]	20mV	76%
DCR24-V0305DLF	3.3V	±5V	4 / 730mA	±200mA	20mV	80%
DCR24-V0312DLF	3.3V	±12V	15 / 720mA	±84mA	15mV	84%
DCR24-V0503DLF	5V	±3.3V	4 / 480mA	±300mA[3]	20mV	75%
DCR24-V0505DLF	5V	±5V	6 / 480mA	±200mA	20mV	82%
DCR24-V0512DLF	5V	±12V	15 / 450mA	±84mA	15mV	87%
DCR24-V0524DLF	5V	±24V	50 / 480mA	±42mA	10mV	81%
DCR24-V1203DLF	12V	±3.3V	3 / 220mA	±300mA[3]	25mV	74%
DCR24-V1205DLF	12V	±5V	4 / 200mA	±200mA	20mV	80%
DCR24-V1212DLF	12V	±12V	5 / 200mA	±84mA	15mV	88%
DCR24-V1224DLF	12V	±24V	15 / 200mA	±42mA	15mV	85%
DCR24-V2405DLF	24V	±5V	3 / 100mA	±200mA	30mV	85%
DCR24-V2412DLF	24V	±12V	4 / 100mA	±84mA	30mV	89%
DCR24-V2424DLF	24V	±24V	8 / 100mA	±42mA	25mV	86%

Notes:

[1]Maximum input voltage range +/-10% from nominal

[2]Output ripple/noise tested with a 4.7uF capacitor at input and 10uF capacitor at output of the device @ 20MHz BW

[3]Maximum current derating above 85C by 20% at 105C

[4]Line regulation: +/-1.4% per 1% input change for 3.3V versions and less than +/-1.3% for all other devices

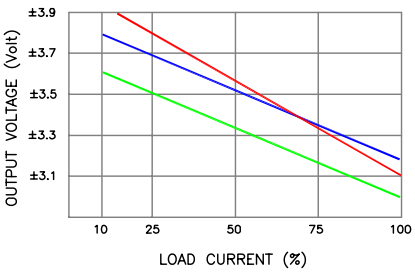
[5]Switching frequency: 3.3Vin = 220kHz, 5Vin = 420kHz, 12Vin = 350kHz, 24Vin = 350kHz

[6]RoHS exemption 7(c)-V is applicable to internal chip resistor

Output Voltage vs. Load

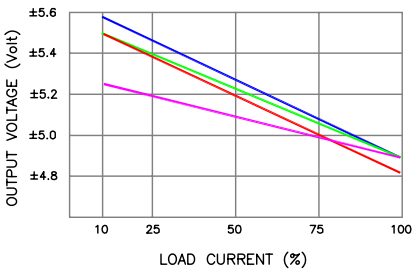
2W 3.3Vin 5Vin 12Vin 24Vin

3.3V OUTPUT VOLTAGE VS. LOAD



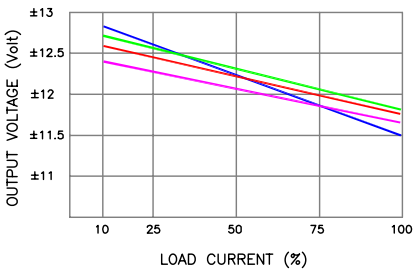
DCR24-V0303DLF
DCR24-V0503DLF
DCR24-V1203DLF

5V OUTPUT VOLTAGE VS. LOAD



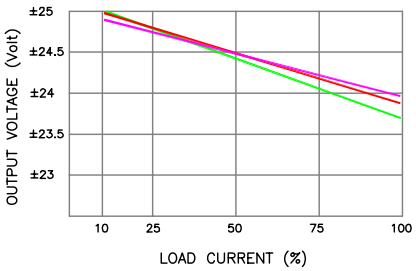
DCR24-V0305DLF
DCR24-V0505DLF
DCR24-V1205DLF
DCR24-V2405DLF

12V OUTPUT VOLTAGE VS. LOAD



DCR24-V0312DLF
DCR24-V0512DLF
DCR24-V1212DLF
DCR24-V2412DLF

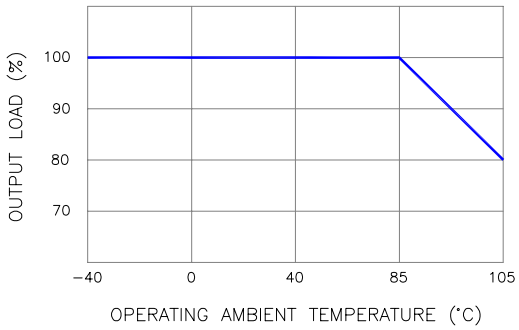
24V OUTPUT VOLTAGE VS. LOAD



DCR24-V0524DLF
DCR24-V1224DLF
DCR24-V2424DLF

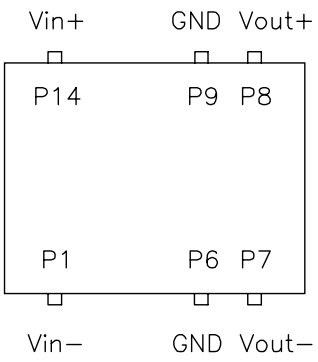
Power Derating Curve

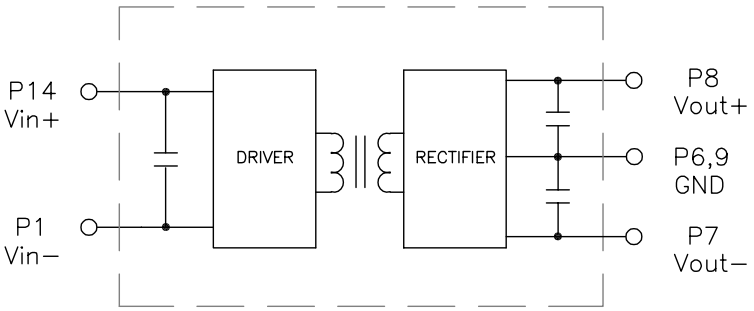
OUTPUT POWER DERATING



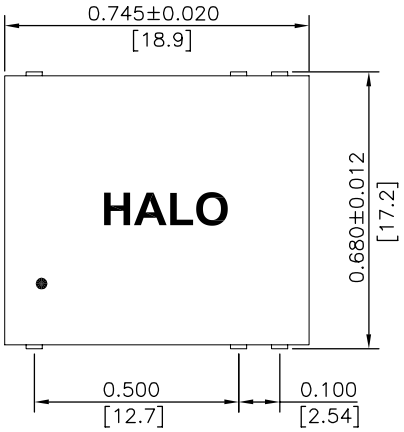
Applicable Part Numbers:
DCR24-V0303DLF
DCR24-V0503DLF
DCR24-V1203DLF

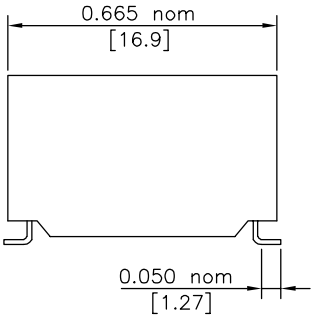
Pin Out / Block Diagram

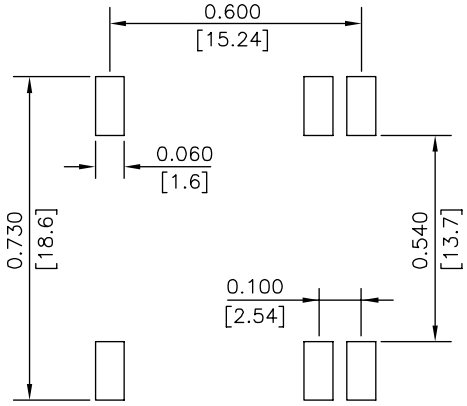




Mechanical







RECOMMENDED SOLDER PAD DIM.

DIMENSION: inch [mm]
TOLERANCES: ±0.005 inch IF NOT SPECIFIED

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Revised 10/2026. Download the latest version at www.haloelectronics.com/pdf/dc-converter-reinforced-dual2w.pdf