Reinforced 1W & 2W DC/DC Converters

SMD Reinforced 4KV Unregulated 1Watt and 2Watt DC/DC Converters

HALO ELECTRONICS, INC.



Images are for reference only

Product Features:

- DC/DC 1W and 2W Unregulated Converters
- 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

1 Watt, 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
DCR14-V0303SLF	3.3V	3.3V	4 / 360mA	300mA	25mV	78%
DCR14-V0305SLF	3.3V	5V	5 / 360mA	200mA	25mV	83%
DCR14-V0312SLF	3.3V	12V	9 / 350mA	84mA	15mV	87%
DCR14-V0503SLF	5V	3.3V	4 / 250mA	300mA	25mV	80%
DCR14-V0505SLF	5V	5V	8 / 250mA	200mA	20mV	85%
DCR14-V0512SLF	5V	12V	10 / 250mA	84mA	15mV	88%
DCR14-V1203SLF	12V	3.3V	3 / 100mA	300mA	30mV	78%
DCR14-V1205SLF	12V	5V	4 / 100mA	200mA	20mV	85%
DCR14-V1212SLF	12V	12V	5 / 100mA	84mA	15mV	88%

2 Watt, 4000VDC Isolation

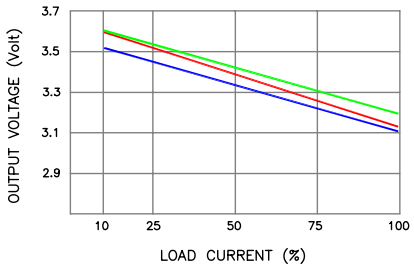
Part Number	Input Voltage[1]	Output Voltage	Input Current No-Load/Full-Load	Max Output Current	Output Ripple/Noise[2]	Efficiency @ Full Load
DCR24-V0303SLF	3.3V	3.3V	4 / 760mA	600mA[3]	30mV	70%
DCR24-V0305SLF	3.3V	5V	6 / 730mA	400mA[3]	30mV	78%
DCR24-V0312SLF	3.3V	12V	10 / 700mA	167mA	20mV	85%
DCR24-V0503SLF	5V	3.3V	4 / 520mA	600mA[3]	50mV	72%
DCR24-V0505SLF	5V	5V	5 / 480mA	400mA	35mV	80%
DCR24-V0512SLF	5V	12V	9 / 450mA	167mA	25mV	87%
DCR24-V1203SLF	12V	3.3V	3 / 220mA	600mA[3]	50mV	72%
DCR24-V1205SLF	12V	5V	4 / 200mA	400mA	35mV	80%
DCR24-V1212SLF	12V	12V	4 / 200mA	167mA	25mV	87%

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

Output Voltage vs. Load

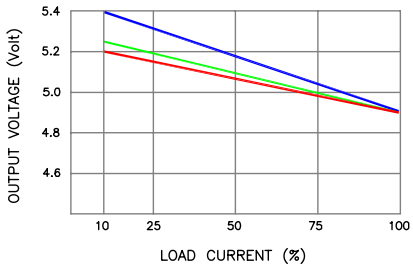
1W 3.3Vin 5Vin 12Vin

3.3V OUTPUT VOLTAGE VS. LOAD



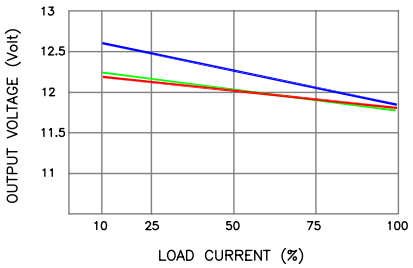
DCR14-V0303SLF
DCR14-V0503SLF
DCR14-V1203SLF

5V OUTPUT VOLTAGE VS. LOAD



DCR14-V0305SLF
DCR14-V0505SLF
DCR14-V1205SLF

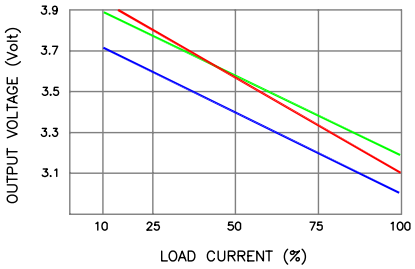
12V OUTPUT VOLTAGE VS. LOAD



DCR14-V0312SLF
DCR14-V0512SLF
DCR14-V1212SLF

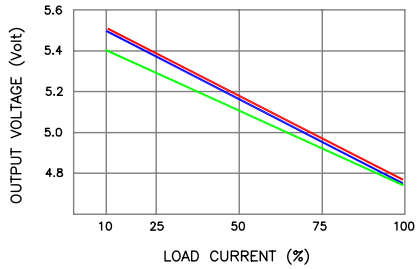
2W 3.3Vin 5Vin 12Vin

3.3V OUTPUT VOLTAGE VS. LOAD



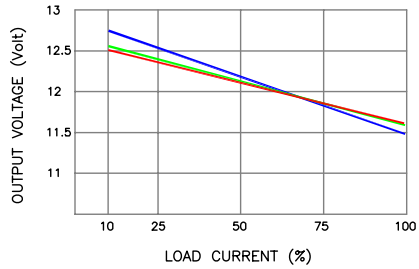
DCR24-V0303SLF
DCR24-V0503SLF
DCR24-V1203SLF

5V OUTPUT VOLTAGE VS. LOAD



DCR24-V0305SLF
DCR24-V0505SLF
DCR24-V1205SLF

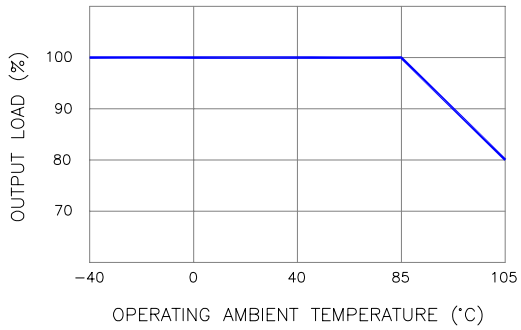
12V OUTPUT VOLTAGE VS. LOAD



DCR24-V0312SLF
DCR24-V0512SLF
DCR24-V1212SLF

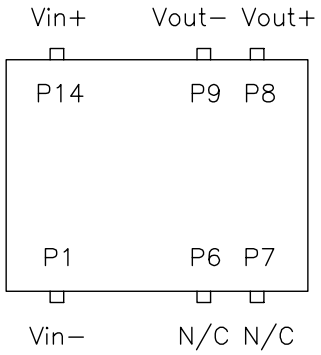
Power Derating Curve

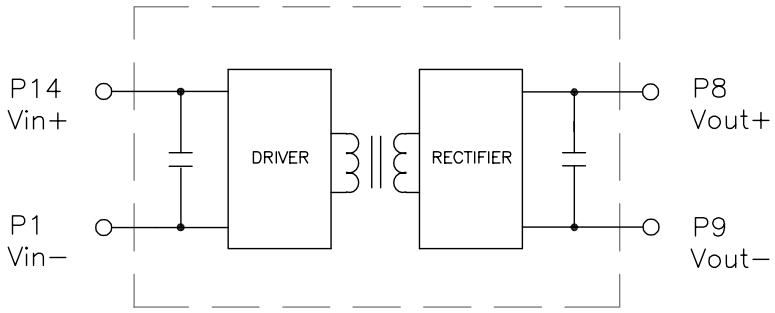
OUTPUT POWER DERATING



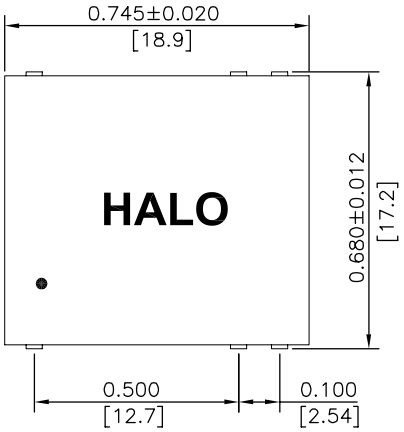
Applicable Part Numbers:
DCR24-V0303SLF
DCR24-V0305SLF
DCR24-V0503SLF
DCR24-V1203SLF

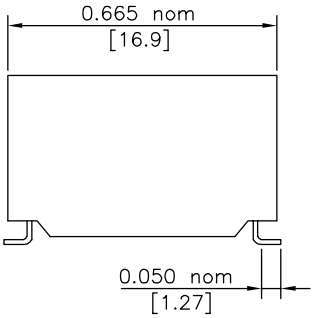
Pin Out / Block Diagram

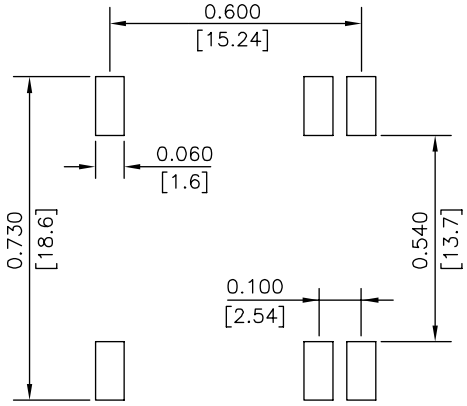




Mechanical







RECOMMENDED SOLDER PAD DIM.

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

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