

FEATURES

- Low Ripple & Noise
- 3 Watts Output Power
- Single and Dual Output
- External ON/OFF Control
- RoHS Directive Compliant
- 2:1 Wide Input Voltage Range
- UL94-V0 Case Potting Materials
- Continuous Short Circuit Protection
- Input to Output Isolation up to 1KVDC
- SIP Package: 0.86 x 0.36 x 0.44 Inches



UL
TUV
CB
CE MARK
(Pending)



SPECIFICATIONS: LANEW3 Series

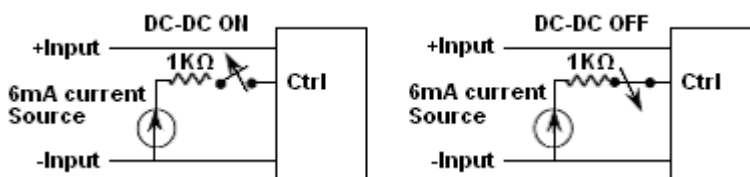
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
 We reserve the right to change specifications based on technological advances.

INPUT SPECIFICATIONS

Input Voltage Range	5V nominal input 12V nominal input 24V nominal input 48V nominal input	4.5 – 9 VDC 9 – 18 VDC 18 – 36 VDC 36 – 75 VDC
Input Current	See Table	
Input Filter	Capacitor Type	
Input Voltage Variation	dv/dt	5V/ms, max (Complies with ETS300 132 part 4.4)
Input Surge Voltage (100ms max)	5V nominal input 12V nominal input 24V nominal input 48V nominal input	15 VDC 36 VDC 50 VDC 100 VDC
Input Reflected Ripple Current	5V nominal input 12V nominal input 24V nominal input 48V nominal input	400mA _{p-p} 150mA _{p-p} 380mV _{p-p} 170mV _{p-p}
Start Up Time (Nominal Vin and constant resistive Load)	Power Up Remote ON/OFF	1ms typ 1ms typ

Remote ON/OFF	DC-DC ON	Open or high impedance
	DC-DC OFF	Control pin applied current 4 ~ 8mA max (via 1KΩ)
	Remote OFF Input Current (nominal input)	1mA max

Application Circuit



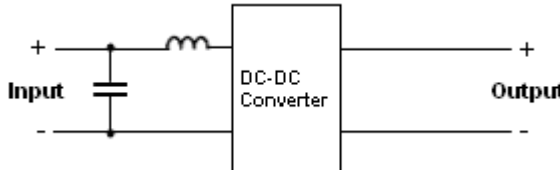
OUTPUT SPECIFICATIONS

Output Voltage	See Table	
Voltage Accuracy (Full load and nominal Vin)		±1%
Line Regulation (Low line to high line at full load)		±0.2%
Load Regulation	Single Output (min. load to 100% load) Dual Output (balanced on all outputs)	±0.5% ±1%
Cross Regulation (Dual)	Asymmetrical load 25% / 100% FL	±5%
Minimum Load (See Note 3)	See Table	



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LANEW3 Series
3 Watt DC/DC Converter
Single and Dual Outputs
2:1 Wide Input Voltage Range

SPECIFICATIONS (CONTINUED)		
OUTPUT SPECIFICATIONS (CONTINUED)		
Output Power	3 Watts max.	
Output Current	See Table	
Ripple & Noise (20MHz bandwidth)	75mVp-p	
Transient Response Recovery Time	25% load step change	500µs typ.
Temperature Coefficient	±0.1% / °C max.	
PROTECTION		
Short Circuit Protection	Continuous, automatic recovery	
GENERAL SPECIFICATIONS		
Efficiency	See Table	
Switching Frequency	Full load to minimum load	100KHz, min.
Isolation Voltage (input to output)	1600VDC, min.	
Insulation Resistance	10GΩ min.	
Isolation Capacitance	1000pF max.	
ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	-40°C ~ +71°C (without derating) +71°C ~+100°C (with derating)	
Storage Temperature	-55°C to +125°C	
Relative Humidity	5% to 95% RH	
Thermal Shock	MIL-STD-810D	
Vibration	10-55Hz, 10G, 30 minutes along X, Y, and Z axis	
MTBF (see Note 1)	Bellcore TR-NWT-000332 MIL-STD-217F	4,386,000 Hours 2,401,000 Hours
PHYSICAL SPECIFICATIONS		
Weight	4.8 grams (0.17oz)	
Dimensions	0.86 x 0.36 x 0.44 inches (21.8 x 9.2 x 11.1 mm)	
Case Material	Non-conductive black plastic	
Base Material	None	
Potting Material	Silicon (UL94-V0)	
SAFETY & EMC		
Safety Standard Pending	IEC60950-1, UL60950-1, EN60950-1	
EMC Characteristics (See Note 2)	5V nominal input 100µF & 10µF 12V nominal input 100µF & 10µF 24V nominal input 10µF & 120µF 48V nominal input 10µF & 120µF	
	Meet EN55022 classes B recommend circuit with an external L-C filter at input	
	EMC External Circuit 	



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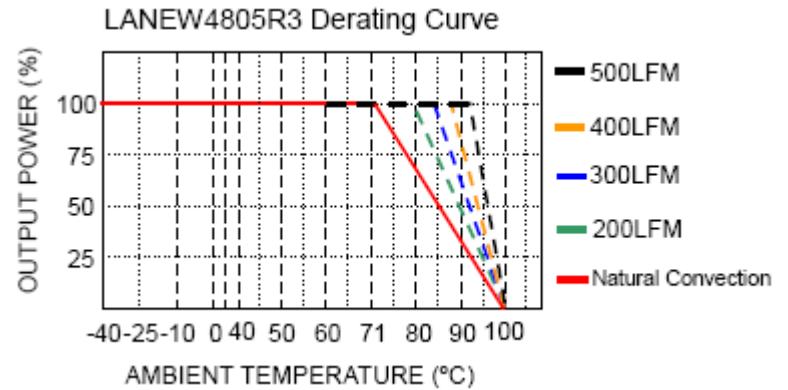
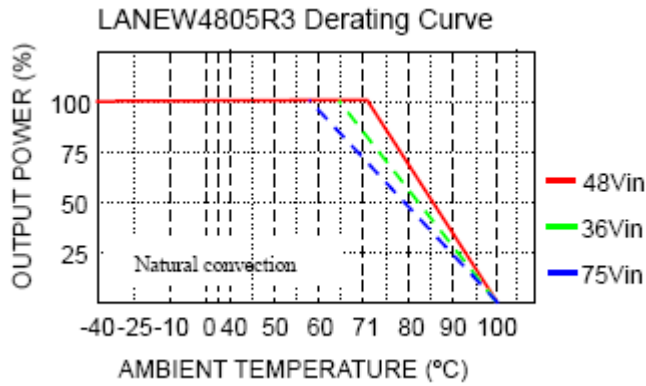
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Range	Output Voltage	Output Current		Input Current		Efficiency ⁽⁶⁾	Capacitor ⁽⁷⁾ Load max
			Min. load ⁽³⁾	Full load	No load ⁽⁴⁾	Full load ⁽⁵⁾		
LANEW533R3	5 VDC (4.5 – 9 VDC)	3.3 VDC	35mA	700mA	113mA	670mA	73%	1760uF
LANEW505R3		5 VDC	30mA	600mA	75mA	822mA	77%	1000uF
LANEW509R3		9 VDC	20mA	333mA	83mA	811mA	78%	470uF
LANEW512R3		12 VDC	17mA	250mA	83mA	800mA	79%	170uF
LANEW515R3		15 VDC	14mA	200mA	53mA	790mA	80%	110uF
LANEW505RD3		±5 VDC	±15mA	±300mA	45mA	822mA	77%	±470uF
LANEW512RD3		±12 VDC	±10mA	±125mA	135mA	800mA	79%	±100uF
LANEW515RD3		±15 VDC	±10mA	±100mA	120mA	790mA	80%	±47uF
LANEW1233R3	12 VDC (9 – 18 VDC)	3.3 VDC	35mA	700mA	45mA	275mA	74%	1760uF
LANEW1205R3		5 VDC	30mA	600mA	45mA	338mA	78%	1000uF
LANEW1209R3		9 VDC	20mA	333mA	45mA	333mA	79%	470uF
LANEW1212R3		12 VDC	17mA	250mA	45mA	329mA	80%	170uF
LANEW1215R3		15 VDC	14mA	200mA	53mA	325mA	81%	110uF
LANEW1205RD3		±5 VDC	±15mA	±300mA	75mA	329mA	80%	±470uF
LANEW1212RD3		±12 VDC	±10mA	±125mA	60mA	325mA	81%	±100uF
LANEW1215RD3		±15 VDC	±10mA	±100mA	60mA	325mA	81%	±47uF
LANEW2433R3	24 VDC (18 – 36 VDC)	3.3 VDC	35mA	700mA	23mA	138mA	74%	1760uF
LANEW2405R3		5 VDC	30mA	600mA	10mA	169mA	78%	1000uF
LANEW2409R3		9 VDC	20mA	333mA	23mA	167mA	79%	470uF
LANEW2412R3		12 VDC	17mA	250mA	26mA	164mA	80%	170uF
LANEW2415R3		15 VDC	14mA	200mA	20mA	162mA	81%	110uF
LANEW2405RD3		±5 VDC	±15mA	±300mA	20mA	164mA	80%	±470uF
LANEW2412RD3		±12 VDC	±10mA	±125mA	24mA	162mA	81%	±100uF
LANEW2415RD3		±15 VDC	±10mA	±100mA	24mA	162mA	81%	±47uF
LANEW4833R3	48 VDC (36 – 75 VDC)	3.3 VDC	35mA	700mA	11mA	69mA	74%	1760uF
LANEW4805R3		5 VDC	30mA	600mA	12mA	84mA	78%	1000uF
LANEW4809R3		9 VDC	20mA	333mA	8mA	83mA	79%	470uF
LANEW4812R3		12 VDC	17mA	250mA	8mA	82mA	80%	170uF
LANEW4815R3		15 VDC	14mA	200mA	18mA	81mA	81%	110uF
LANEW4805RD3		±5 VDC	±15mA	±300mA	12mA	82mA	80%	±470uF
LANEW4812RD3		±12 VDC	±10mA	±125mA	12mA	81mA	81%	±100uF
LANEW4815RD3		±15 VDC	±10mA	±100mA	15mA	81mA	81%	±47uF

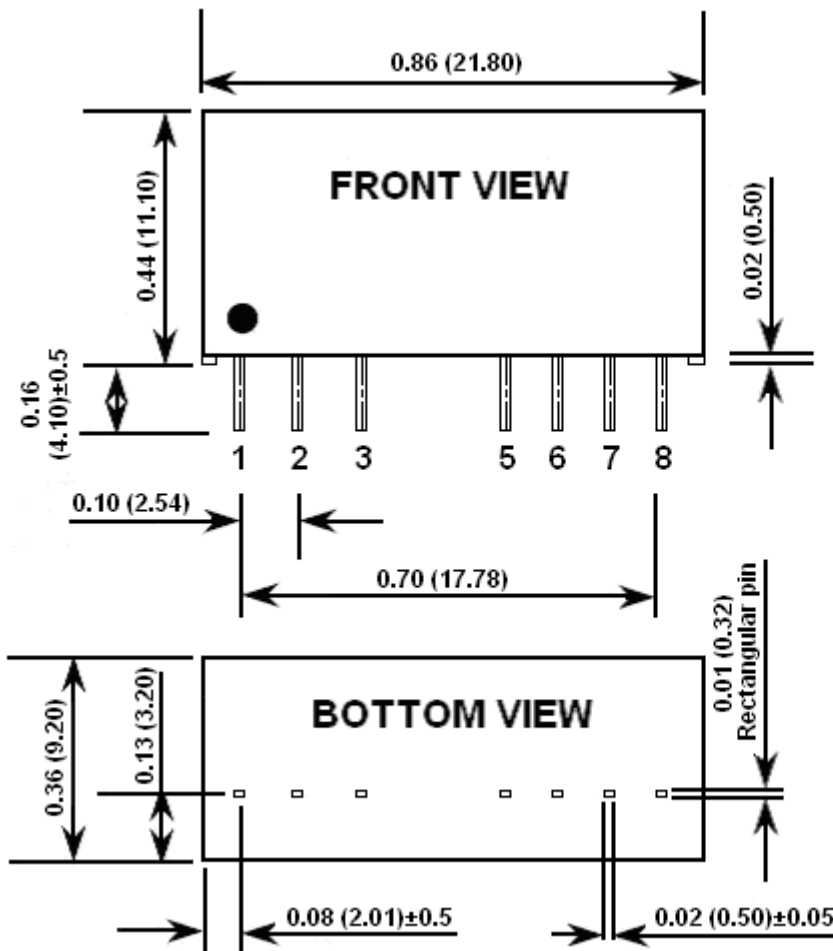
NOTES:

1. BELLCORE TR-NWT-000332. Case: 50% Stress, Temperature at 40°C (Ground fixed and controlled environment). MIL-STD-217F Notice2 @ Ta = 25°C, Full Load (Ground fixed and controlled environment).
2. The LANEW3 Series requires an external filter to meet EN55022 Class B.
3. The LANEW3 Series requires a minimum load at the output to maintain specified regulation. Operation under no-load condition will not damage these devices, however they may not meet all listed specifications.
4. Typical value at nominal input voltage.
5. Maximum value at nominal input voltage and full load.
6. Typical value at nominal input voltage and full load.
7. Test by minimum Vin and constant resistive load.

DERATING CURVES



MECHANICAL DRAWING



ALL DIMENSIONS IN INCHES (mm)
 TOLERANCE: X.XX±0.02(X.X±0.5)
 X.XXX±0.01(X.XX±0.25)
 PIN PITCH TOLERANCE: ±0.02(0.5)

PIN CONNECTION		
Pin	Single Output	Dual Output
1	-INPUT	-INPUT
2	+INPUT	+INPUT
3	CTRL	CTRL
5	NC	NC
6	+OUTPUT	+OUTPUT
7	-OUTPUT	COMMON
8	NC	-OUTPUT