

FEATURES

- Low Ripple & Noise
- 2 Watts Output Power
- Single and Dual Output
- External ON/OFF Control
- 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
- No External Input and Output Capacitor Needed



SPECIFICATIONS: LANEW 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)
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 (There is an external capacitor at input (See Note 2))	5V nominal input (100µF) 12V nominal input (100µF) 24V nominal input (10µF) 48V nominal input (10µF)	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 DC-DC OFF Remote OFF Input Current (nominal input) Application Circuit DC-DC ON DC-DC OFF	Open or high impedance Control pin applied current 4 ~ 8mA max (via 1KΩ) 1mA max

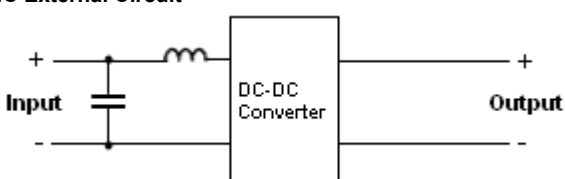
OUTPUT SPECIFICATIONS

Output Voltage	See Table	
Voltage Accuracy (Full load and nominal Vin)		±1%
Line Regulation (Low line to high line at full load)		±0.5%
Load Regulation (25% to 100% full load)	Single Output Dual Output	±0.75% ±1%
Cross Regulation (Dual)	Asymmetrical load 25% / 100% FL	±5%
Minimum Load (See Note 1)	10% of full load	



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

SPECIFICATIONS (CONTINUED)		
OUTPUT SPECIFICATIONS (CONTINUED)		
Output Power	2 Watts max.	
Output Current	See Table	
Ripple & Noise (20MHz bandwidth)	50mVp-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)	1000VDC, min.	
Insulation Resistance	10GΩ min.	
Isolation Capacitance	300pF	
ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	-40°C to +85°C	
Storage Temperature	-55°C to +105°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 3)	5,017,000 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 Approvals and Standards	Meets IEC60950-1, UL60950-1, EN60950-1	
EMC Characteristics (See Note 4)	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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2:1 Wide Input Voltage Range

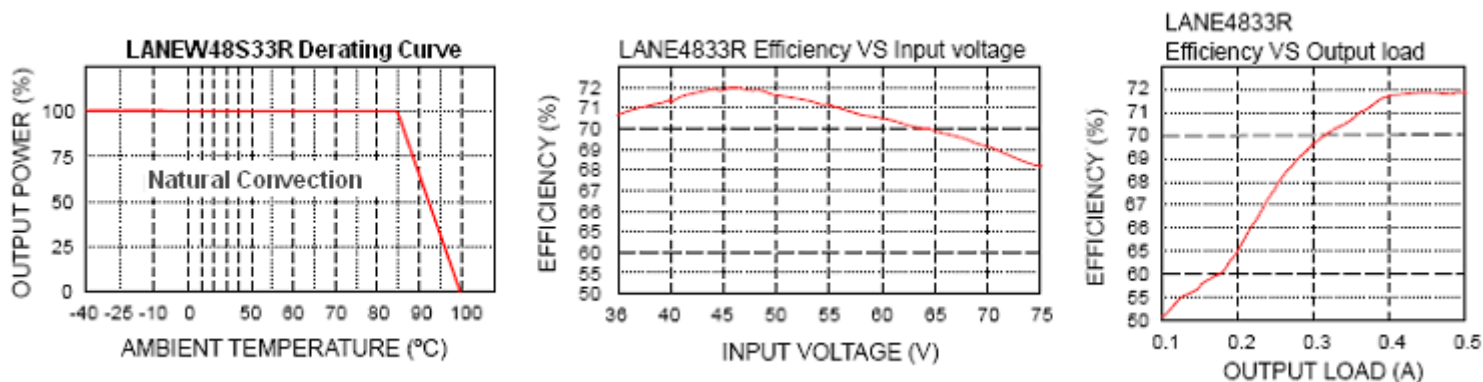
OUTPUT VOLTAGE / CURRENT RATING CHART

Model Number	Input Range	Output Voltage	Output Current		Input Current ⁽⁵⁾	Efficiency ⁽⁶⁾	Capacitor ⁽⁷⁾ Load max
			Min. load	Full load			
LANEW533R	5 VDC (4.5 – 9 VDC)	3.3 VDC	50mA	500mA	540mA	65%	2200uF
LANEW505R		5 VDC	40mA	400mA	615mA	69%	1000uF
LANEW509R		9 VDC	22mA	222mA	596mA	71%	470uF
LANEW512R		12 VDC	17mA	167mA	588mA	72%	170uF
LANEW515R		15 VDC	13mA	134mA	582mA	73%	110uF
LANEW505RD		±5 VDC	±20mA	±200mA	645mA	66%	±470uF
LANEW512RD		±12 VDC	±8mA	±83mA	595mA	71%	±100uF
LANEW515RD		±15 VDC	±7mA	±67mA	598mA	71%	±47uF
LANEW1233R	12 VDC (9 – 18 VDC)	3.3 VDC	50mA	500mA	202mA	72%	2200uF
LANEW1205R		5 VDC	40mA	400mA	234mA	75%	1000uF
LANEW1209R		9 VDC	22mA	222mA	222mA	79%	470uF
LANEW1212R		12 VDC	17mA	167mA	219mA	80%	170uF
LANEW1215R		15 VDC	13mA	134mA	220mA	80%	110uF
LANEW1205RD		±5 VDC	±20mA	±200mA	242mA	73%	±470uF
LANEW1212RD		±12 VDC	±8mA	±83mA	224mA	78%	±100uF
LANEW1215RD		±15 VDC	±7mA	±67mA	226mA	78%	±47uF
LANEW2433R	24 VDC (18 – 36 VDC)	3.3 VDC	50mA	500mA	102mA	71%	2200uF
LANEW2405R		5 VDC	40mA	400mA	115mA	76%	1000uF
LANEW2409R		9 VDC	22mA	222mA	109mA	80%	470uF
LANEW2412R		12 VDC	17mA	167mA	109mA	80%	170uF
LANEW2415R		15 VDC	13mA	134mA	108mA	81%	110uF
LANEW2405RD		±5 VDC	±20mA	±200mA	117mA	75%	±470uF
LANEW2412RD		±12 VDC	±8mA	±83mA	112mA	78%	±100uF
LANEW2415RD		±15 VDC	±7mA	±67mA	110mA	80%	±47uF
LANEW4833R	48 VDC (36 – 75 VDC)	3.3 VDC	50mA	500mA	52mA	70%	2200uF
LANEW4805R		5 VDC	40mA	400mA	60mA	74%	1000uF
LANEW4809R		9 VDC	22mA	222mA	56mA	78%	470uF
LANEW4812R		12 VDC	17mA	167mA	55mA	80%	170uF
LANEW4815R		15 VDC	13mA	134mA	55mA	79%	110uF
LANEW4805RD		±5 VDC	±20mA	±200mA	62mA	75%	±470uF
LANEW4812RD		±12 VDC	±8mA	±83mA	57mA	77%	±100uF
LANEW4815RD		±15 VDC	±7mA	±67mA	57mA	77%	±47uF

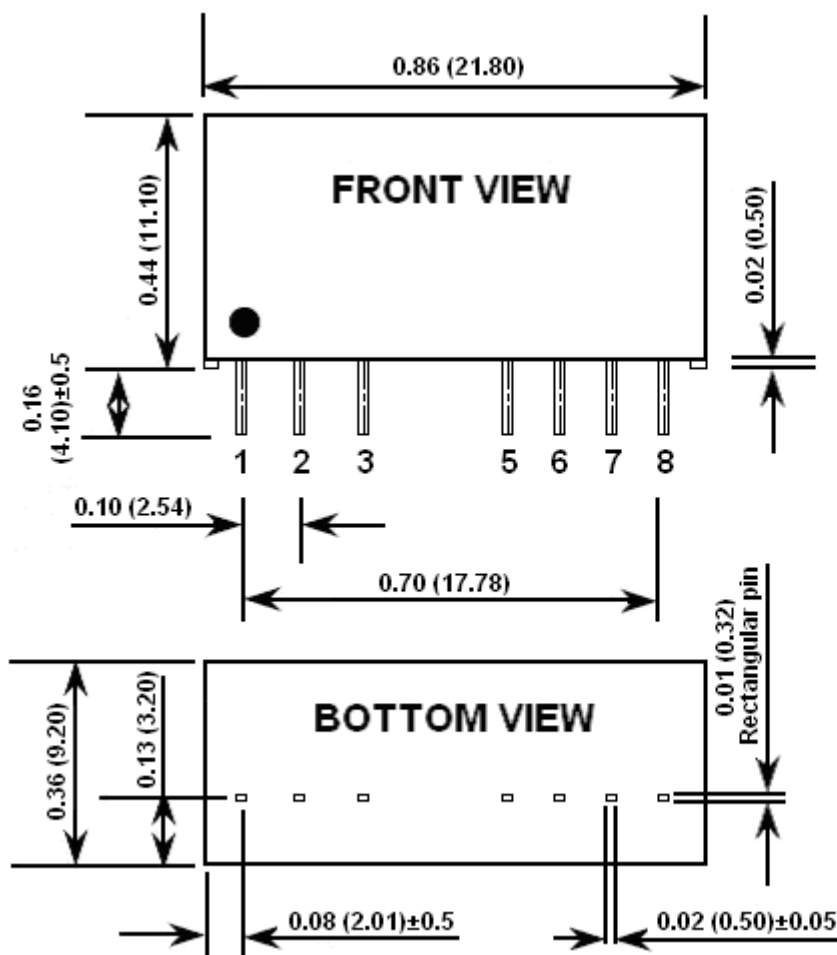
NOTES:

1. The LANEW Series requires a minimum 10% loading 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.
2. It will not damage the device without inserting external input capacitors. There is a smaller reflected ripple current when a capacitor is put at the input. The capacitor recommended is "CHEMICON" LXZ series or equivalent for 05 & 12Vin and "CHEMICON" KMF series or equivalent for 24 & 48Vin.
3. BELLCORE TR-NWT-000332. Case: 50% Stress, Temperature at 40°C. (Ground fixed and controlled environment).
4. The LANEW series meet EN55022 classes A with a filter at input. The filter capacitor recommended is same as Note 2.
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 CURVE & EFFICIENCY GRAPHS



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 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