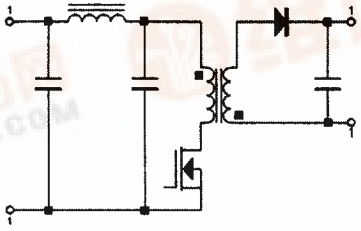
EW Series of 4.5 to 6 Watt DC/DC Converters

STANDARD DC/DC CONVERTERS WITH SINGLE OR DUAL REGULATED OUTPUTS. AN INTERNAL ∏ (Pi) INPUT FILTER IS STANDARD AND IS USED TO REDUCE REFLECTED RIPPLE CURRENT. ALL MODELS FEATURE A NICKEL-PLATED COPPER CASE WITH SIX-SIDED SHIELDING.

DIMENSIONS:
1.00" x 2.00" x 0.40"
(25.40) x (50.80) x (10.16)mm

BLOCK DIAGRAM



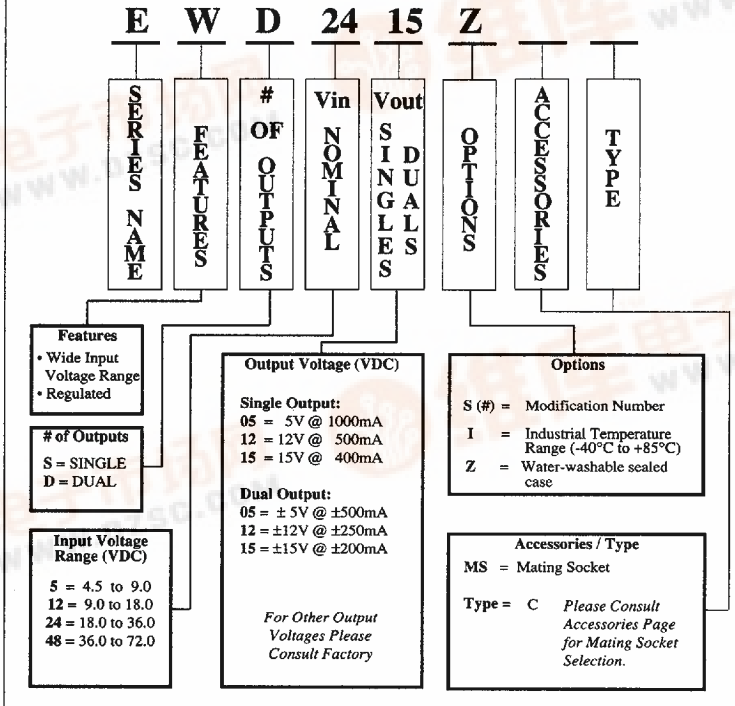
FEATURES

- Industry Standard Pin Out
- Six-Sided Shielding
- 500 VDC I/O Isolation
- Continuous Short Circuit Protection
- Input ∏ (Pi) Filter

APPLICATIONS

- Telecommunication
- Data Processing Equipment
- Industrial Equipment
- Medical Equipment
- A/D and D/A Converters
- Distributed Power Systems

PART NUMBER SELECTION GUIDE



INTERNATIONAL POWER DEVICES, INC.
20 Linden Street, Boston, MA 02134 • Phone: (617)782-3331 • Fax: (617)782-7416

PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
GENERAL:					
Switching Frequency	170	200	240	KHz	
Isolation Voltage					
Input to Output	500			VDC	
Input to Case				VDC	Note 5
Output to Case				VDC	Note 5
Isolation Resistance					
Input to Output	10^9			Ohms	
Short Circuit Protection					Note 3
ENVIRONMENTAL:					
Operating Temperature	-25		85	°C	Note 1
Storage Temperature	-40		125	°C	Ambient
Operating Humidity			95%		Non-Condensing
Storage Humidity			95%		Non-Condensing
INPUT:					
Input Voltage					
5 Vin	4.50	5.00	9.00	VDC	
12 Vin	9.00	12.00	18.00	VDC	
24 Vin	18.00	24.00	36.00	VDC	
48 Vin	36.00	48.00	72.00	VDC	
Input Current					
5 Vin			1.00	Amps	Note 2
12 Vin			0.80	Amps	Note 2
24 Vin			0.40	Amps	Note 2
48 Vin			0.20	Amps	Note 2
Input Ripple Current			20%	Iin max	
Reverse Input Current			100%	Iin max	
OUTPUT:					
Singles:					
Voltage Accuracy			±1.00%	Vout	Full Load
Load Regulation			±1.00%	Vout	10% to 100%
Line Regulation			±1.00%	Vout	LL to HL
Current Limit			130%	Iout	Note 3, Note 4
Duals:					
Voltage Accuracy					
+Vout			±1.00%	Vout	Full Load
-Vout			±1.00%	Vout	Full Load
Load Regulation					
+Vout			±1.00%	Vout	10% to 100%
-Vout			±1.00%	Vout	10% to 100%
Line Regulation			±1.00%	Vout	LL to HL
Current Limit			130%	Iout	Note 3, Note 4
Temp. Coefficient			±0.02%	/ °C	
Voltage Stability			±0.05%	Vout	
Ripple and Noise			1.00%	Vout	p-p, 20 MHz BW
Transient Response					
25% Step					
Load change			500	µS	1% Error Band

NOTES:

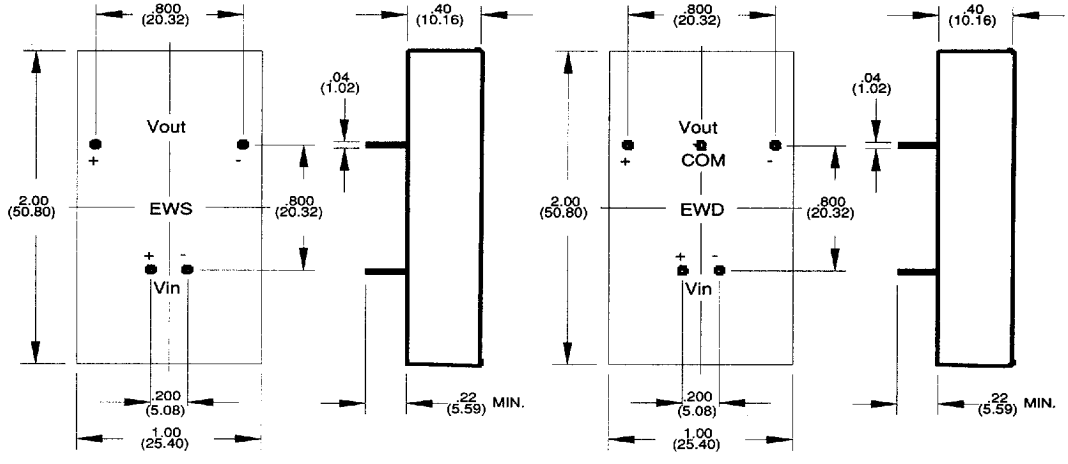
1. No derating required up to a maximum case temperature of 85°C. See efficiency and thermal impedence data provided. Internal Power Dissipation = Pout* (1-Eff) / Eff.
2. Provided for input fuse selection.
3. Continuous Short Circuit Protection is provided. For dual output units the short circuit current on each individual output is equivalent to the short circuit current for a single output unit.
4. Long term continuous operation in this mode is not recommended. Converter will auto-restart once short has been removed.
5. For 48V input models, the case is connected to +Vin. For all other input voltages, the case is tied to either -Vout (Singles) or the Output Common (Duals).

* All specifications typical at +25°C Nominal Line and Full Load unless otherwise noted.
* Specifications subject to change without notice.

Notes: _____

BOTTOM VIEW

Mechanical tolerances are ± 0.04"



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All Dimensions are in inches (MM)

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PIN CONNECTIONS

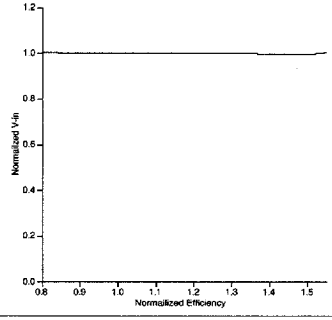
PIN #	SINGLE	DUAL
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

THERMAL IMPEDANCE

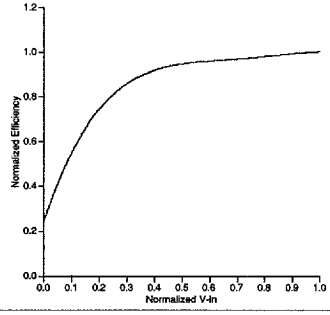
	Typical RθCA
NATURAL CONVECTION	22°C/W
100 LFPM	18°C/W
200 LFPM	11°C/W
300 LFPM	8.9°C/W
400 LFPM	6.8°C/W

Thermal Impedance data depends upon many environmental factors and may vary from application to application. The numbers provided are intended as a guide. The exact thermal performance should be validated in each application.

EFFICIENCY vs. LOAD (Typical)



EFFICIENCY vs. Vin (Typical)



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