

**TRCELECTRONICS, INC.****"Authorized Distributor"**

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Contact TRC for pricing,  
availability, and technical  
assistance.

Z Series DC-DC converter designed  
for small size and high reliability

- Isolated between input- output
- Built- in overcurrent protection circuit
- Small and compact size
- Five- year warranty

**ORDERING INFORMA****ZW30512**

Output voltage  
Input voltage  
Output wattage  
Dual output  
Series name

**SPECIFICATIONS**

Output pins can be connected in series to make a 24V/30V output.

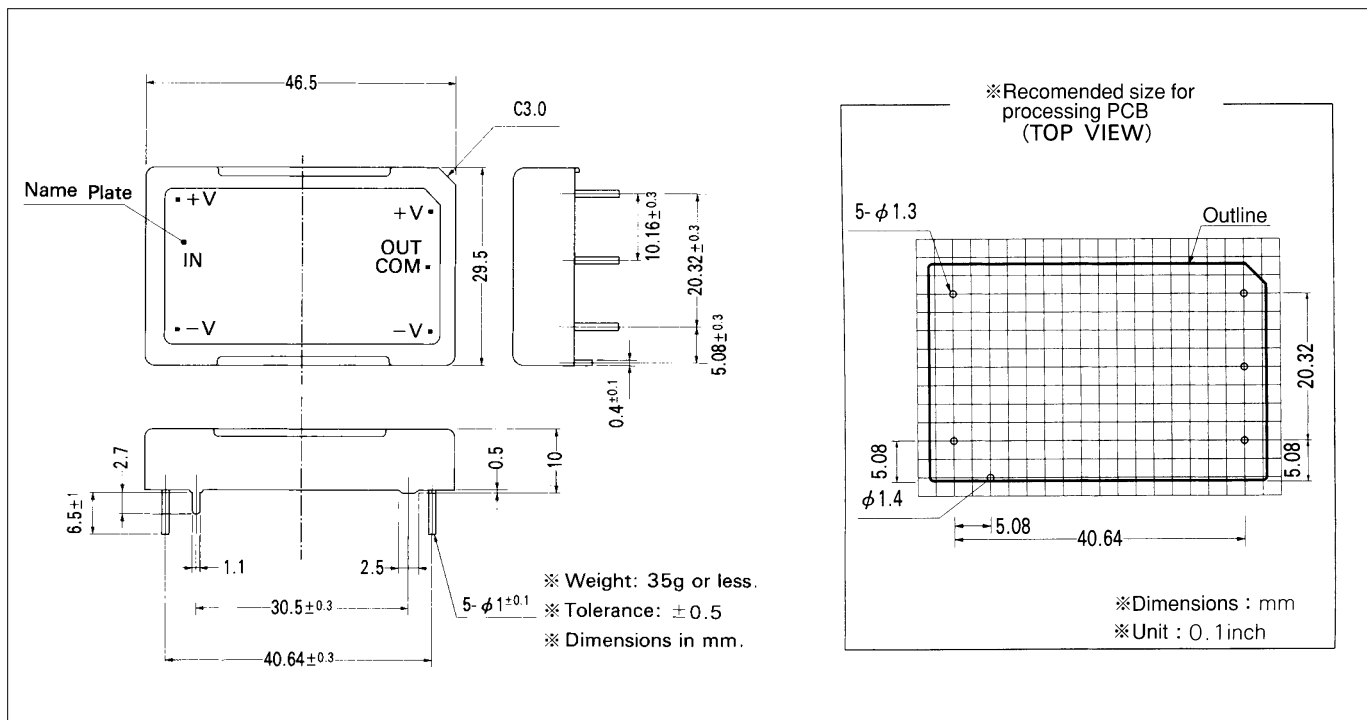
|                    | MODEL                                   | ZW30512                                                                                     | ZW30515     | ZW31212      | ZW31215     | ZW32412      | ZW32415     | ZW34812      | ZW34815     |
|--------------------|-----------------------------------------|---------------------------------------------------------------------------------------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|
| INPUT              | VOLTAGE [V]                             | 5 ( 4.5~6.0 )                                                                               |             | 12 ( 10~15 ) |             | 24 ( 20~30 ) |             | 48 ( 35~63 ) |             |
|                    | EFFICIENCY [%]                          | 65 typ                                                                                      |             | 70 typ       |             | 74 typ       |             | 70 typ       |             |
| Z OUTPUT           | VOLTAGE [V]                             | ±12 ( +24 )                                                                                 | ±15 ( +30 ) | ±12 ( +24 )  | ±15 ( +30 ) | ±12 ( +24 )  | ±15 ( +30 ) | ±12 ( +24 )  | ±15 ( +30 ) |
|                    | CURRENT [A]                             | 0.12                                                                                        | 0.1         | 0.12         | 0.1         | 0.12         | 0.1         | 0.12         | 0.1         |
|                    | REGULATION LINE [mV]                    | 60 max                                                                                      | 75 max      | 60 max       | 75 max      | 60 max       | 75 max      | 60 max       | 75 max      |
|                    | REGULATION LOAD [mV]                    | 600 max                                                                                     | 750 max     | 600 max      | 750 max     | 600 max      | 750 max     | 600 max      | 750 max     |
|                    | RIPPLE [mVp-p]                          | 120 max                                                                                     |             | 120 max      |             | 120 max      |             | 120 max      |             |
|                    | RIPPLE NOISE [mVp-p]                    | 120 max                                                                                     |             | 120 max      |             | 120 max      |             | 120 max      |             |
|                    | TEMPERATURE COEFFICIENT [mV]<br>0~+50°C | 120 max                                                                                     | 150 max     | 120 max      | 150 max     | 120 max      | 150 max     | 120 max      | 150 max     |
|                    | OUTPUT VOLTAGE SET (FIXED) [%]          | ±5 max ( Rated input/ output, Ta=25 <sup>a</sup> )                                          |             |              |             |              |             |              |             |
| PROTECTION CIRCUIT | OVERCURRENT PROTECTION                  | Works over 105% of rating and recovers automatically                                        |             |              |             |              |             |              |             |
| ISOLATION          | INPUT, OUTPUT, CASE                     | AC500V, 1 minute, Cutoff current=10mA, DC500V, 50M <sup>?</sup> min. ( At Room Temperature) |             |              |             |              |             |              |             |
| ENVIRONMENT        | OPERATING TEMP. AND HUMID.              | - 10~+60 <sup>a</sup> , 20~90% RH ( Non condensing ) ( Refer to DERATING CURVE)             |             |              |             |              |             |              |             |
|                    | STORAGE TEMP. AND HUMID.                | - 20~+75 <sup>a</sup> , 20~90% RH ( Non condensing )                                        |             |              |             |              |             |              |             |
|                    | VIBRATION                               | 10~55Hz, 2G, 3 minutes period, 30 minutes along X, Y and Z axis                             |             |              |             |              |             |              |             |
|                    | IMPACT                                  | 50G, 11mS, once each X, Y and Z axis                                                        |             |              |             |              |             |              |             |

<sup>a</sup> The output specification is at ±12V and ±15V.

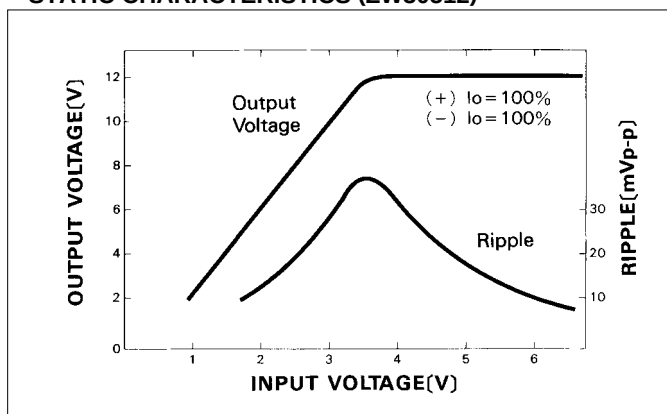
<sup>?</sup> Parallel operation with other model is not possible.

| MODEL              | ZW3              |      |      |      | ZW3              |      |      |      |
|--------------------|------------------|------|------|------|------------------|------|------|------|
|                    | 0512             | 1212 | 2412 | 4812 | 0515             | 1215 | 2415 | 4815 |
| MAX OUTPUT WATTAGE | 2.88 W           |      |      |      | 3.0 W            |      |      |      |
| DC OUTPUT VOLTAGE  | $\pm 12V$ (+24V) |      |      |      | $\pm 15V$ (+30V) |      |      |      |
| DC OUTPUT CURRENT  | 0.12 A           |      |      |      | 0.10 A           |      |      |      |

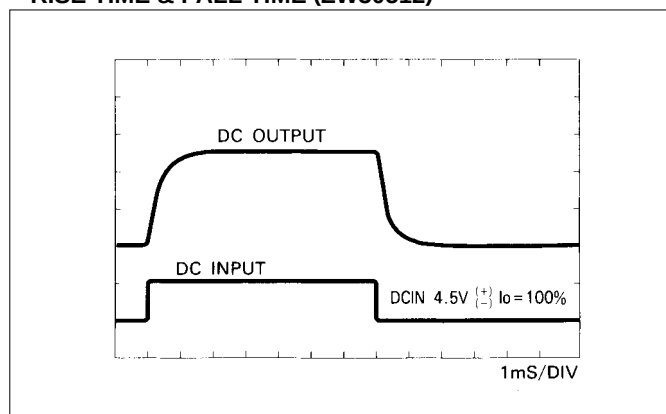
### EXTERNAL VIEW



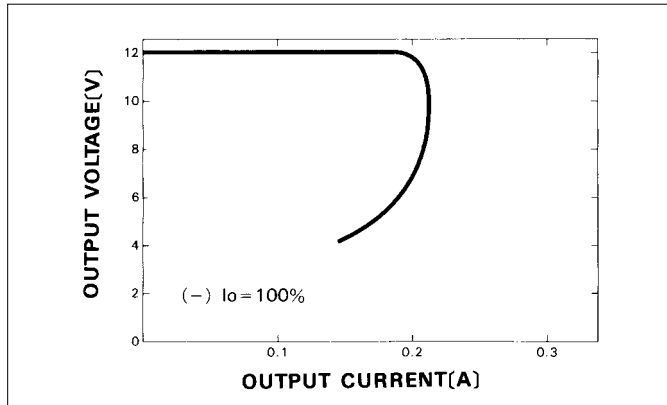
### STATIC CHARACTERISTICS (ZW30512)



### RISE TIME & FALL TIME (ZW30512)



### OVERCURRENT CHARACTERISTICS (ZW30512)



### DERATING CURVE

