

**SPECIFICATION** 



#### Features:

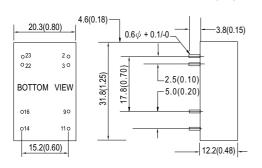
- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Input Pi network filter
- Protections: Short circuit / Overload
- · Cooling by free air convection
- Five-sided shield metal case
- 100% burn-in test
- · Low cost / High reliability
- Approvals: FCC / CE
- 1 year warranty

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| ORDER NO.                 |  | DCW03A-05   | DCW03B-05   | DCW03C-05  | DCW03A-12      | DCW03B-12 | DCW03C-12 | DCW03A-15    | DCW03B-15 | DCW03C-15 |
|---------------------------|--|---|-------------|------------|----------------|-----------|-----------|--------------|-----------|-----------|
| ОИТРИТ                    | DC VOLTAGE                             | ±5V   |             |            | ±12V           |           |           | ±15V         |           |           |
|                           | CURRENT RANGE                          | ±30 ~ ±300mA  |             |            | ±12.5 ~ ±125mA |           |           | ±10 ~ ±100mA |           |           |
|                           | RATED POWER                            | 3W  |             |            |                |           |           |              |           |           |
|                           | RIPPLE & NOISE (max.) Note.2           | 50mVp-p   |             |            | 60mVp-p        |           |           | 60mVp-p      |           |           |
|                           | LINE REGULATION Note.3                 | ±0.5%   |             |            |                |           |           |              |           |           |
|                           | LOAD REGULATION Note.4                 | ±0.5%   |             |            |                |           |           |              |           |           |
|                           | VOLTAGE ACCURACY                       | ±2.0%   |             |            |                |           |           |              |           |           |
|                           | SWITCHING FREQUENCY                    | 50KHz min.  |             |            |                |           |           |              |           |           |
| INPUT                     | VOLTAGE RANGE                          | A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC  |             |            |                |           |           |              |           |           |
|                           | EFFICIENCY (Typ.)                      | 74%   | 75%         | 76%        | 80%            | 80%       | 82%       | 80%          | 80%       | 82%       |
|                           | DC CURRENT                             | Full load A:  | 338mA B: 16 | 7mA C: 83m | ıA             |           |           |              |           |           |
|                           | DO CONTRACTO                           | No load A: 18mA B: 10mA C: 5mA  |             |            |                |           |           |              |           |           |
|                           | FILTER                                 | Pi network  |             |            |                |           |           |              |           |           |
| PROTECTION<br>(Note. 5)   | OVERLOAD                               | 160 ~ 250% rated output power   |             |            |                |           |           |              |           |           |
|                           |  | Protection type: Hiccup mode, recovers automatically after fault condition is removed   |             |            |                |           |           |              |           |           |
|                           | SHORT CIRCUIT                          | All output equipped with short circuit  |             |            |                |           |           |              |           |           |
|                           |  | Protection type : Hiccup mode, recovers automatically after fault condition is removed  |             |            |                |           |           |              |           |           |
| ENVIRONMENT  SAFETY & EMC | WORKING TEMP.                          | -25 ~ + 71°C (Refer to output load derating curve)                                      |             |            |                |           |           |              |           |           |
|                           | WORKING HUMIDITY                       | 20% ~ 90% RH non-condensing   |             |            |                |           |           |              |           |           |
|                           | STORAGE TEMP., HUMIDITY                | -25 ~ +105°C, 10 ~ 95% RH   |             |            |                |           |           |              |           |           |
|                           | TEMP. COEFFICIENT                      | ±0.03% / °C (0 ~ 50°C)  |             |            |                |           |           |              |           |           |
|                           | VIBRATION                              | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes  I/P-O/P:1KVDC |             |            |                |           |           |              |           |           |
|                           | WITHSTAND VOLTAGE ISOLATION RESISTANCE | I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH   |             |            |                |           |           |              |           |           |
|                           | ISOLATION RESISTANCE                   | 80pF max.   |             |            |                |           |           |              |           |           |
|                           |  | Compliance to EN55022 Class B, FCC part 15 Class B                                      |             |            |                |           |           |              |           |           |
|                           | EMS IMMUNITY                           | Compliance to EN61000-4-2.3,4,5,6,8, light industry level, criteria A                   |             |            |                |           |           |              |           |           |
| OTHERS                    | MTBF                                   | 900khrs min. MIL-HDBK-217F (25°C)   |             |            |                |           |           |              |           |           |
|                           | DIMENSION                              | 31.8*20.3*12.2mm or 1.25"*0.80"*0.48" inch (L*W*H)                                      |             |            |                |           |           |              |           |           |
|                           | WEIGHT                                 | 15g   |             |            |                |           |           |              |           |           |

# ■ Mechanical Specification

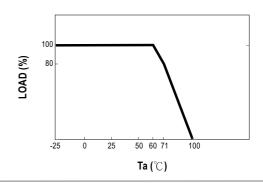
Unit:mm(inch)



## **■** Pin Configuration

| Pin No. | Output |  |  |  |  |
|---------|--------|--|--|--|--|
| 2 & 3   | -Vin   |  |  |  |  |
| 9       | COM    |  |  |  |  |
| 11      | -Vout  |  |  |  |  |
| 14      | +Vout  |  |  |  |  |
| 16      | COM    |  |  |  |  |
| 22 & 23 | +Vin   |  |  |  |  |
|         |        |  |  |  |  |

## ■ Derating Curve



#### NOTE

- 1.All parameters are specified at normal input, rated load,  $25^{\circ}$ C 70% RH Ambient. 2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
- 3.Line regulation is measured from low line to high line at rated load. 4.Load regulation is measured from 10% to 100% rated load.
- 5. Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.