

# C27DW-6W SERIES 6Watt 1.5KV Isolated DC-DC Converter Single & Dual Output SIP8



## FEATURES :

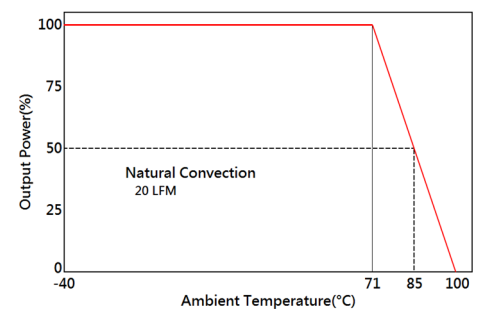
- 6W SIP8 Package
- 4:1 Wide Input Voltages Range
- High Efficiency Up To 88%
- Customized Solutions Available
- Remote Control: On/Off
- Operating Temperature From -40°C To +85°C
- UL94V-0 Package Material
- EMC Standard of EMI EN55032:2012+AC:2013 (Class B) Approved
- EMC Standard of EMS EN55024:2010 Approved
- 3 Years Warranty



Specifications typical at TA=25°C, nominal input voltage  
and rated output current unless otherwise specified

| Part Number    | Input Voltage Range | Input Current    |                    | Output Voltage Range | Output Current | Efficiency |
|----------------|---------------------|------------------|--------------------|----------------------|----------------|------------|
|                | Vdc                 | No Load (mA TYP) | Full Load (mA TYP) | Vdc                  | mA             | %TYP       |
| C27DW-24S03R6W | 9-36                | 7                | 255                | 3.3                  | 1500           | 81         |
| C27DW-24S05R6W | 9-36                | 7                | 298                | 5                    | 1200           | 84         |
| C27DW-24S12R6W | 9-36                | 7                | 287                | 12                   | 500            | 87         |
| C27DW-24S15R6W | 9-36                | 7                | 284                | 15                   | 400            | 88         |
| C27DW-24S24R6W | 9-36                | 7                | 287                | 24                   | 250            | 87         |
| C27DW-48S03R6W | 18-72               | 7                | 127                | 3.3                  | 1500           | 81         |
| C27DW-48S05R6W | 18-72               | 7                | 149                | 5                    | 1200           | 84         |
| C27DW-48S12R6W | 18-72               | 7                | 144                | 12                   | 500            | 87         |
| C27DW-48S15R6W | 18-72               | 7                | 144                | 15                   | 400            | 87         |
| C27DW-48S24R6W | 18-72               | 7                | 144                | 24                   | 250            | 87         |
| C27DW-24D12R6W | 9-36                | 7                | 287                | ±12                  | ±250           | 87         |
| C27DW-24D15R6W | 9-36                | 7                | 287                | ±15                  | ±200           | 87         |
| C27DW-48D12R6W | 18-72               | 7                | 144                | ±12                  | ±250           | 87         |
| C27DW-48D15R6W | 18-72               | 7                | 144                | ±15                  | ±200           | 87         |

## Temperature Derating Graph



## Input Specifications

| Parameters    | Conditions | Min | Typ | Max | Units |
|---------------|------------|-----|-----|-----|-------|
| Voltage Types | Vo, Io Nom |     |     | 4:1 |       |
| Filter        | Capacitor  |     |     |     |       |

# C27DW-6W SERIES 6Watt 1.5KV Isolated DC-DC Converter Single & Dual Output SIP8



## Output Specifications

| Parameters                      | Conditions                            | Min  | Typ        | Max  | Units |
|---------------------------------|---------------------------------------|------|------------|------|-------|
| Voltage Tolerance               | 100% full load                        |      |            | ±2   | %     |
| Short Circuit Protection        | Continuous, Auto-Recovery             |      |            |      |       |
| Line Regulation                 |                                       | -0.5 |            | +0.5 | %     |
| Load Regulation                 | Single output models                  | -0.5 |            | +0.5 | %     |
|                                 | Dual output models                    | -5.0 |            | +5.0 | %     |
| Ripple & Noise                  | Output:3V-10V TYPES<br>BW=DC To 20MHz |      |            | 100  | mVp-p |
|                                 | Output>10V TYPES<br>BW=DC To 20MHz    |      | 1% of Vout |      | mVp-p |
| Transient response setting time | 25% load step change                  |      | 250        |      | us    |

## General Specifications

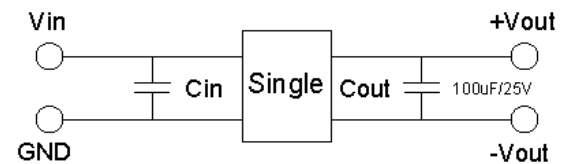
| Parameters            | Conditions                 | Min           | Typ  | Max | Units |
|-----------------------|----------------------------|---------------|------|-----|-------|
| Isolation Voltage     |                            |               | 1500 |     | Vdc   |
| Isolation Resistance  | 500Vdc                     | 1000          |      |     | MΩ    |
| Switching Frequency   | Single                     |               | 400  |     | KHz   |
|                       | Dual                       |               | 500  |     | KHz   |
| Operating Temperature |                            | -40           |      | 85  | °C    |
| Storage Temperature   |                            | -55           |      | 125 | °C    |
| Humidity              | Non Condensing             |               |      | 95  | %     |
| Cooling               | Natural Convection (20LFM) |               |      |     |       |
| Case material         | DAP                        |               |      |     |       |
| MTBF                  | MIL-HDBK-217F @25°C        | 1500000       |      |     | Hours |
| Weight                |                            |               | 4.5  |     | g     |
| Dimensions            |                            | 21.8x9.2x11.1 |      |     | mm    |

## Part Number

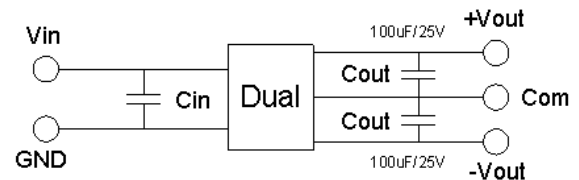
C27DW - 24 S 05 R 6W  
A B C D E F

A: Series  
B: Input Voltage  
C: Single Output  
D: Output Voltage  
E: Regulated(R)  
F: Watt

## Recommended Test Circuit

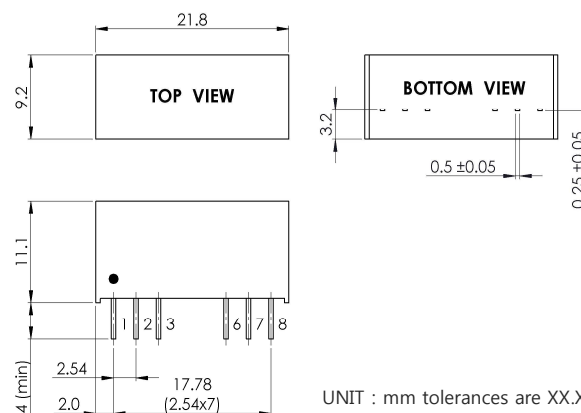


24V&48V: Cin 10uF, 100V



24V & 48V : Cin 10uF, 100V

## Dimensions



UNIT : mm tolerances are XX.X±0.5 ,XX.XX±0.25, the tolerance of Pin size is ±0.05

## PIN Connection

| Pin    | 1    | 2    | 3             | 6     | 7     | 8     |
|--------|------|------|---------------|-------|-------|-------|
| Single | -Vin | +Vin | Remote ON/OFF | +Vout | -Vout | NC    |
| Dual   | -Vin | +Vin | Remote ON/OFF | +Vout | COM   | -Vout |