

## FEATURES :

- 2:1Wide Input Voltages Range
- 6PIN SIP Package
- High Efficiency up to 81%
- Regulated Output Types
- Internal SMD Construction
- No External Component Required
- Operating Temperature:-40°C to +85°C
- Industry Standard Pinout

## YUAN DEAN SCIENTIFIC



## DC-DC Converter

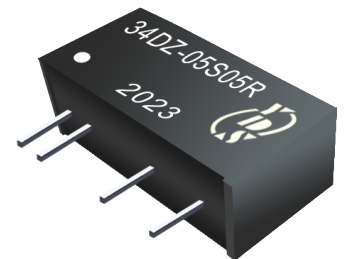
## 34DZ SERIES

1Watt 1.5KVDC Isolated

2:1 Input Voltages Range

Single &amp; Dual Output

SIP 6



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

| Part Number | Input Voltage Range | Output Voltage | Output Current | Efficiency | Capacitive Load(μF) |
|-------------|---------------------|----------------|----------------|------------|---------------------|
|             | Vdc                 | Vdc            | mA             | %TYP       | Max                 |
| 34DZ-05S05R | 4.5-9               | 5              | 200            | 76         | 1680                |
| 34DZ-05S12R | 4.5-9               | 12             | 84             | 79         | 820                 |
| 34DZ-05S15R | 4.5-9               | 15             | 67             | 80         | 680                 |
| 34DZ-05S24R | 4.5-9               | 24             | 42             | 80         | 470                 |
| 34DZ-12S05R | 9-18                | 5              | 200            | 78         | 1680                |
| 34DZ-12S12R | 9-18                | 12             | 84             | 80         | 820                 |
| 34DZ-12S15R | 9-18                | 15             | 67             | 81         | 680                 |
| 34DZ-12S24R | 9-18                | 24             | 42             | 80         | 470                 |
| 34DZ-24S05R | 18-36               | 5              | 200            | 78         | 1680                |
| 34DZ-24S12R | 18-36               | 12             | 84             | 80         | 820                 |
| 34DZ-24S15R | 18-36               | 15             | 67             | 80         | 680                 |
| 34DZ-24S24R | 18-36               | 24             | 42             | 81         | 470                 |
| 34DZ-48S05R | 36-75               | 5              | 200            | 76         | 1680                |
| 34DZ-48S12R | 36-75               | 12             | 84             | 78         | 820                 |
| 34DZ-48S15R | 36-75               | 15             | 67             | 78         | 680                 |
| 34DZ-48S24R | 36-75               | 24             | 42             | 77         | 470                 |
| 34DZ-05D12R | 4.5-9               | ±12            | ±42            | 77         | ±470                |
| 34DZ-05D15R | 4.5-9               | ±15            | ±34            | 79         | ±330                |
| 34DZ-12D12R | 9-18                | ±12            | ±42            | 79         | ±470                |
| 34DZ-12D15R | 9-18                | ±15            | ±34            | 80         | ±330                |
| 34DZ-24D12R | 18-36               | ±12            | ±42            | 80         | ±470                |
| 34DZ-24D15R | 18-36               | ±15            | ±34            | 79         | ±330                |
| 34DZ-48D12R | 36-75               | ±12            | ±42            | 77         | ±470                |
| 34DZ-48D15R | 36-75               | ±15            | ±34            | 77         | ±330                |

## Note :

No suffix is standard isolation (1.5KVDC) e.g, 14DC-05S05N · \*add suffix "H3" for 3KVDC isolation, e.g, 14DC-05S05NH3, 14DC-05S12NH3



## Input Specifications

| Parameters        | Conditions | Min | Typ | Max | Units |
|-------------------|------------|-----|-----|-----|-------|
| Voltage Tolerance | Vo,lo Nom  |     |     | 2:1 |       |
| Filter            | Capacitor  |     |     |     |       |

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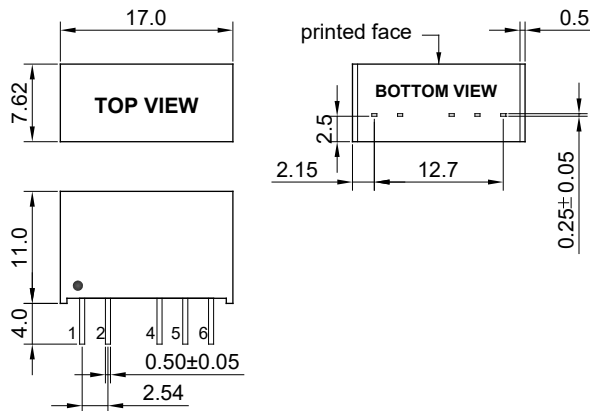
Output Specifications

| Parameters               | Conditions                    | Min | Typ  | Max | Units |
|--------------------------|-------------------------------|-----|------|-----|-------|
| Voltage Tolerance        | 100% full load                |     |      | ±2  | %     |
| Short Circuit Protection | Continuous with auto recovery |     |      |     |       |
| Line Regulation          |                               |     | ±0.2 |     | %     |
| Load Regulation          | Single 0% to 100% Load        |     | ±1.0 |     | %     |
|                          | Dual 0% to 100% Load          |     | ±2.0 |     | %     |
| Ripple & Noise           | Single Output BW=DC To 20MHz  |     |      | 100 | mVp-p |
|                          | Dual Output BW=DC To 20MHz    |     |      | 150 | mVp-p |

General Specifications

| Parameters            | Conditions              | Min     | Typ            | Max | Units |
|-----------------------|-------------------------|---------|----------------|-----|-------|
| Isolation Resistance  | 500Vdc                  | 1000    |                |     | MΩ    |
| Switching Frequency   | Full load,nominal input |         | 200            |     | KHz   |
| Operation Temperature |                         | -40     |                | +85 | °C    |
| Humidity              | Non Condensing          |         |                | 95  | %     |
| Cooling               | Free air Convection     |         |                |     |       |
| Case material         | DAP                     |         |                |     |       |
| MTBF                  | MIL-HDBK-217F@25°C      | 1500000 |                |     | Hours |
| Weight                |                         |         | 3.0            |     | g     |
| Dimensions            |                         |         | 17.0x7.62x11.0 |     | mm    |

Markings and dimensions

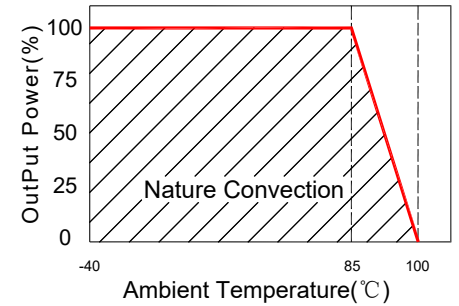


Unit:mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

| PIN    | 1    | 2    | 4     | 5      | 6     |
|--------|------|------|-------|--------|-------|
| Single | -Vin | +Vin | +Vout | NO PIN | -Vout |
| Dual   | -Vin | +Vin | +Vout | Common | -Vout |

Temperature Derating Graph



Part Number

34DZ - 05 S 05 R  
A B C D E

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)

Recommended Test Circuit

