

## FEATURES :

- 7PIN SIP & 14PIN DIL Package
- High Efficiency up to 70%
- Output Regulation<1.5%
- Internal SMD Construction
- No External Component Required
- Industry Standard Pinout
- Operating Temperature:-40°C TO +85°C

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

| Part Number   | Output Voltage | Output Current | Efficiency | Package Style |
|---------------|----------------|----------------|------------|---------------|
|               | Vdc            | mA             | %Typ       |               |
| 15D-XXS03RNL  | 3.3            | 100            | 45         | 1             |
| 15D-XXS05RNL  | 5              | 100            | 45         | 1             |
| 15D-XXS09RNL  | 9              | 100            | 55         | 1             |
| 15D-XXS12RNL  | 12             | 84             | 55         | 1             |
| 15D-XXS15RNL  | 15             | 67             | 60         | 1             |
| 15D-XXS03R2NL | 3.3            | 100            | 45         | 2             |
| 15D-XXS05R2NL | 5              | 100            | 45         | 2             |
| 15D-XXS09R2NL | 9              | 100            | 55         | 2             |
| 15D-XXS12R2NL | 12             | 84             | 55         | 2             |
| 15D-XXS15R2NL | 15             | 67             | 60         | 2             |
| 15D-XXS24R2NL | 24             | 42             | 60         | 2             |
| 15D-XXS03R3NL | 3.3            | 100            | 45         | 3             |
| 15D-XXS05R3NL | 5              | 100            | 45         | 3             |
| 15D-XXS09R3NL | 9              | 100            | 55         | 3             |
| 15D-XXS12R3NL | 12             | 84             | 55         | 3             |
| 15D-XXS15R3NL | 15             | 67             | 60         | 3             |
| 15D-XXS03R4NL | 3.3            | 100            | 45         | 4             |
| 15D-XXS05R4NL | 5              | 100            | 45         | 4             |
| 15D-XXS09R4NL | 9              | 100            | 55         | 4             |
| 15D-XXS12R4NL | 12             | 84             | 55         | 4             |
| 15D-XXS15R4NL | 15             | 67             | 60         | 4             |
| 15D-XXS24R4NL | 24             | 42             | 60         | 4             |

## Note:

- 1."XX" Is Input Voltage: 03=3.3Vdc, 05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc
2. Over 24Vdc input voltage, using the 2nd or 4nd package
3. The input voltage increases, there will be an increase in efficiency.
4. Input 3.3V, then output will be 12V MAX Output 3.3V, then input will be 12V MAX

## Input Specifications

| Parameters        | Conditions | Min | Typ | Max | Units |
|-------------------|------------|-----|-----|-----|-------|
| Voltage Tolerance | Vo,Io Nom  |     |     | ±5  | %     |
| Filter            | Capacitor  |     |     |     |       |

YUAN DEAN SCIENTIFIC



DC-DC Converter

15D SERIES

1Watt

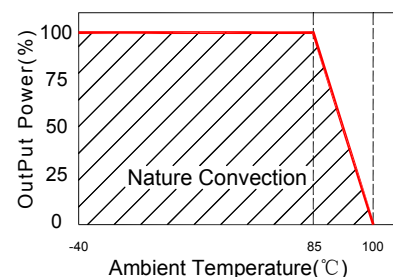
1KV Isolated

Single Output

SIP7 &amp; DIL14



## Temperature Derating Graph



www.yds.com.tw



TEL : 886-6-3842899 FAX : 886-6-3843288  
E-MAIL : ydsweb@yds.com.tw

Rev:3 2018/10/18

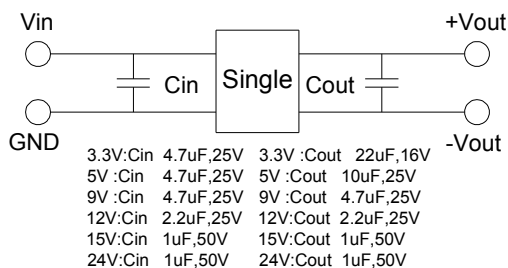
## Output Specifications

| Parameters                      | Conditions           | Min | Typ  | Max | Units |
|---------------------------------|----------------------|-----|------|-----|-------|
| Voltage Tolerance               | 100% full load       |     |      | ±5  | %     |
| Short Circuit Protection        | Continuous           |     |      |     |       |
| Line Regulation                 | For 1.0% OF Vin      |     | 0.25 |     | %     |
| Load Regulation                 | 10% To 100% F.L      |     |      | 1.5 | %     |
| Ripple & Noise                  | BW=DC To 20MHz       |     |      | 100 | mVp-p |
| Transient response setting time | 50% load step change |     | 350  |     |       |

## General Specifications

| Parameters            | Conditions               | Min              | Typ | Max | Units |
|-----------------------|--------------------------|------------------|-----|-----|-------|
| Isolation Resistance  | 500Vdc                   | 1000             |     |     | MΩ    |
| Switching Frequency   | Full load, nominal input |                  | 100 |     | KHz   |
| Operating Temperature |                          | -40              |     | +85 | °C    |
| Humidity              | Non Condensing           |                  |     | 95  | %     |
| Cooling               | Free air Convection      |                  |     |     |       |
| Case material         | DAP                      |                  |     |     |       |
| MTBF                  | MIL-HDBK-217F @25°C      | 1500000          |     |     | Hours |
| Weight                | Package 1/2/3/4          | 2.1/2.7/2.3/3.0  |     |     | g     |
| Dimensions            | Package 1                | 19.50x6.00x10.00 |     |     | mm    |
| Dimensions            | Package 2                | 19.5x7.10x10.00  |     |     | mm    |
| Dimensions            | Package 3                | 20.32x10.16x6.80 |     |     | mm    |
| Dimensions            | Package 4                | 20.32x10.16x7.70 |     |     | mm    |

## Recommended Test Circuit



## PIN Connection

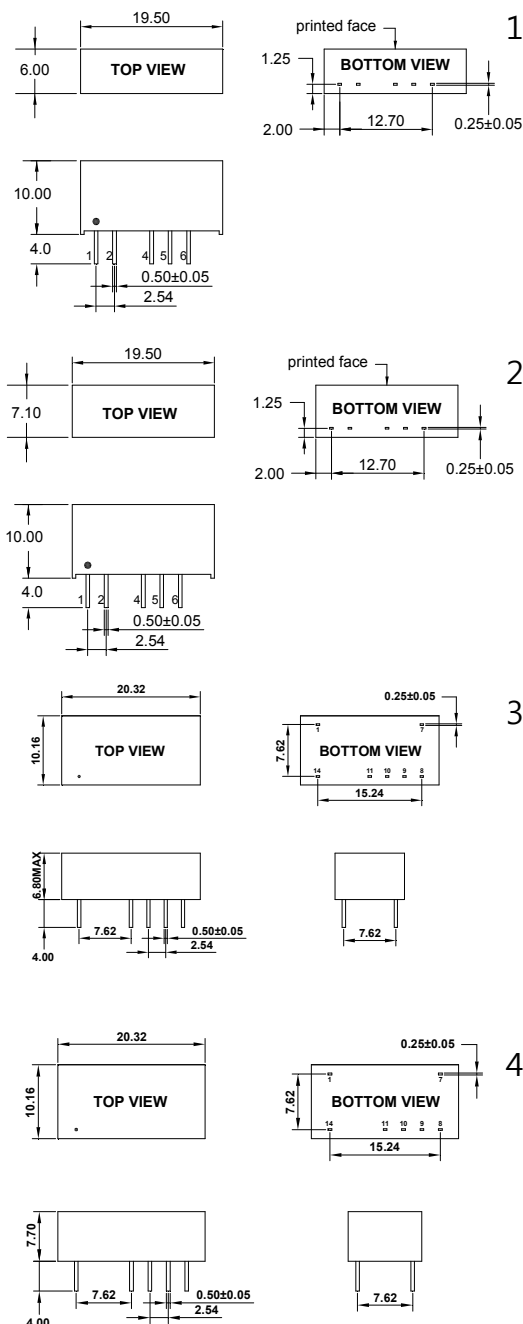
| PIN   | 1    | 2    | 4     | 5    | 6     | 7  | 8  | 9     | 10   | 11    | 14   |
|-------|------|------|-------|------|-------|----|----|-------|------|-------|------|
| 7PIN  | +Vin | -Vin | -Vout | CTRL | +Vout |    |    |       |      |       |      |
| 14PIN | -Vin |      |       |      |       | NC | NC | +Vout | CTRL | -Vout | +Vin |

## Part Number

15D - 05 S 05 R 2 NL  
A B C D E F G

A: Series  
B: Input Voltage  
C: Single(S)  
D: Output Voltage  
E: Regulated(R)  
F: Package  
G: RoHS Version

## Markings and dimensions



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