

FEATURES :

- 4PIN SIP Package
- High Efficiency up to 85%
- Output Continuous Short Circuit Protection
- Unregulated Output Types
- Internal SMD Construction
- Industry Standard Pinout

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

| Part Number | Output Voltage | Output Current | Ripple & Noise (mVp-p) | | Efficiency |
|---------------|----------------|----------------|------------------------|-----|------------|
| | Vdc | mA | Typ | Max | %Typ |
| 13DB-05S05N3W | 5 | 600 | 60 | 100 | 80 |
| 13DB-05S09N3W | 9 | 333 | 60 | 100 | 83 |
| 13DB-05S12N3W | 12 | 250 | 60 | 100 | 83 |
| 13DB-05S15N3W | 15 | 200 | 60 | 100 | 83 |
| 13DB-09S05N3W | 5 | 600 | 60 | 100 | 81 |
| 13DB-09S09N3W | 9 | 333 | 60 | 100 | 81 |
| 13DB-09S12N3W | 12 | 250 | 60 | 100 | 84 |
| 13DB-09S15N3W | 15 | 200 | 60 | 100 | 84 |
| 13DB-12S05N3W | 5 | 600 | 60 | 100 | 83 |
| 13DB-12S09N3W | 9 | 333 | 60 | 100 | 83 |
| 13DB-12S12N3W | 12 | 250 | 60 | 100 | 85 |
| 13DB-12S15N3W | 15 | 200 | 60 | 100 | 85 |
| 13DB-15S05N3W | 5 | 600 | 60 | 100 | 81 |
| 13DB-15S09N3W | 9 | 333 | 60 | 100 | 83 |
| 13DB-15S12N3W | 12 | 250 | 60 | 100 | 84 |
| 13DB-15S15N3W | 15 | 200 | 60 | 100 | 84 |

Input Specifications

| Parameters | Conditions | Min | Typ | Max | Units |
|-------------------|------------|-----|-----|-----|-------|
| Voltage Tolerance | Vo, Io Nom | | | ±10 | % |
| Filter | Capacitor | | | | |

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 | | 1.2 | | % |
| Load Regulation | 5V,9V (10% To 100% F.L) | | | 18 | % |
| Load Regulation | 12~15V (10% To 100% F.L) | | | 12 | % |

YUAN DEAN SCIENTIFIC



DC-DC Converter

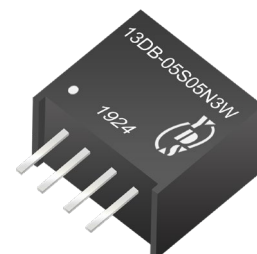
13DB-3W SERIES

3Watt

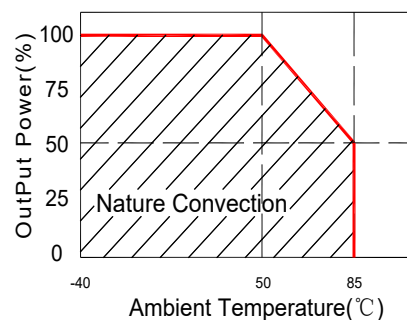
1KV Isolated

Single Output

SIP4



Temperature Derating Graph



www.yds.com.tw



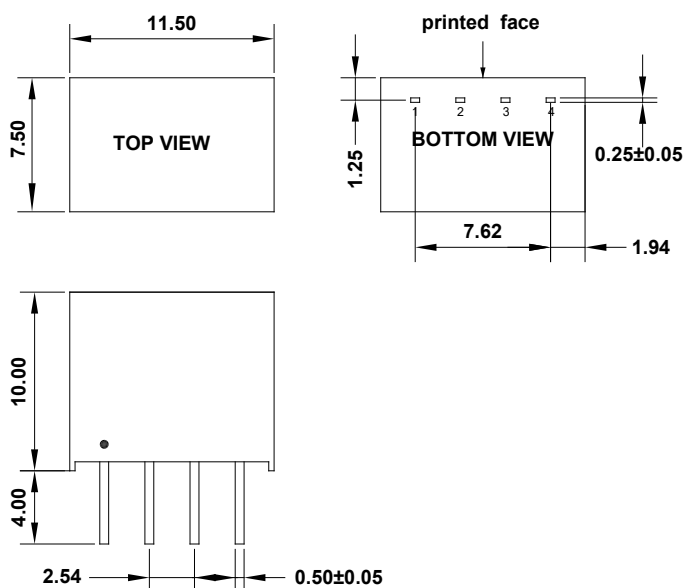
TEL : 886-6-3842899 FAX : 886-6-3843288
E-MAIL : ydsweb@yds.com.tw

Rev:0 2019/06/14

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 |
| Storage Temperature | | -55 | | +85 | °C |
| Humidity | Non Condensing | | | 95 | % |
| Cooling | Free air Convection | | | | |
| Case material | DAP | | | | |
| MTBF | MIL-HDBK-217F @25°C | 3500000 | | | Hours |
| Weight | | | 1.9 | | g |
| Dimensions | | 11.50x7.50x10.00 | | | mm |

Markings and Dimensions



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

PIN Connection

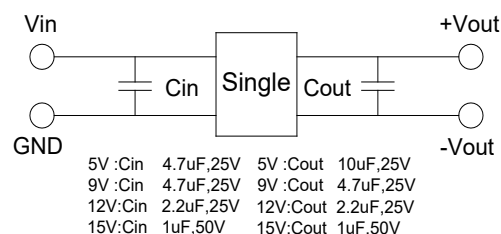
| PIN | 1 | 2 | 3 | 4 |
|--------|------|------|-------|-------|
| Single | -Vin | +Vin | -Vout | +Vout |

Part Number

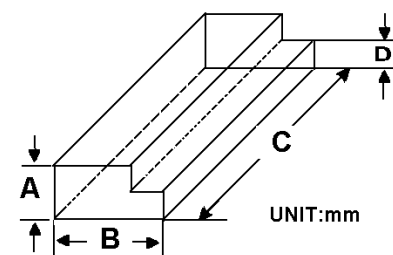
13DB - 05 S 05 N 3W
A B C D E F

- A:Series
- B:Input Voltage
- C:Single Output
- D:Output Voltage
- E:Unregulated(N)
- F:Output Power

Recommended Test Circuit



Packaging



| Size(mm) | | | |
|----------|-------|-----|------|
| A | B | C | D |
| 9.50 | 16.50 | 522 | 5.00 |

