



25W Single Output DC-DC Converter

SD-25 series



■ Features :

- 2:1 wide input range
- Protections: Short circuit/Over load/Over voltage
- 1500VDC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83KHz
- Low cost
- High reliability
- 1 year warranty



SPECIFICATION

| MODEL | SD-25A-5 | SD-25B-5 | SD-25C-5 | SD-25A-12 | SD-25B-12 | SD-25C-12 | SD-25A-24 | SD-25B-24 | SD-25C-24 | |
|------------------------|--|--|----------|-------------------------|---------------------|------------------------|-----------|-----------------------|-----------|-----|
| OUTPUT | DC VOLTAGE | 5V | | | 12V | | | 24V | | |
| | RATED CURRENT | 5A | | | 2.1A | | | 1.1A | | |
| | CURRENT RANGE | 0 ~ 5A | | | 0 ~ 2.1A | | | 0 ~ 1.1A | | |
| | RATED POWER | 25W | | | 25.2W | | | 26.4W | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | | | 120mVp-p | | | 150mVp-p | | |
| | VOLTAGE ADJ. RANGE | 4.5 ~ 5.5VDC | | | 11 ~ 16VDC | | | 23 ~ 30VDC | | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | | | ±1.0% | | | ±1.0% | | |
| | LINE REGULATION | ±0.5% | | | ±0.3% | | | ±0.2% | | |
| | LOAD REGULATION | ±0.5% | | | ±0.3% | | | ±0.2% | | |
| SETUP, RISE, HOLD TIME | 2.5s, 50ms, ----- at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE | A:9.2 ~ 18VDC | | B:19 ~ 36VDC | | C:36 ~ 72VDC | | | | |
| | EFFICIENCY (Typ.) | 71% | 72% | 74% | 72% | 75% | 78% | 75% | 78% | 81% |
| | DC CURRENT | 3.2A/12V | | | 1.6A/24V | | | 0.8A/48V | | |
| PROTECTION | OVER LOAD | 105 ~ 150% rated output power Protection type : Fold back current limiting, recovers automatically after fault condition is removed | | | | | | | | |
| | OVER VOLTAGE | 5.75 ~ 6.75V/10% load | | | 16.8 ~ 20V/10% load | | | 31.5 ~ 37.5V/10% load | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°C (Refer to output load derating curve) | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | Design refer to LVD | | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | | | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | | | | |
| OTHERS | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,6,8; ENV50204, EN55024, heavy industry level, criteria A | | | | | | | | |
| | MTBF | 374.3K hrs min.(SD-50A) | | 365.9K hrs min.(SD-50B) | | 77.5K Hrs min.(SD-50C) | | MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 99*97*36mm (L*W*H) | | | | | | | | |
| | PACKING | 0.36Kg; 45pcs/16.2Kg/0.9CUFT | | | | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. | | | | | | | | | |

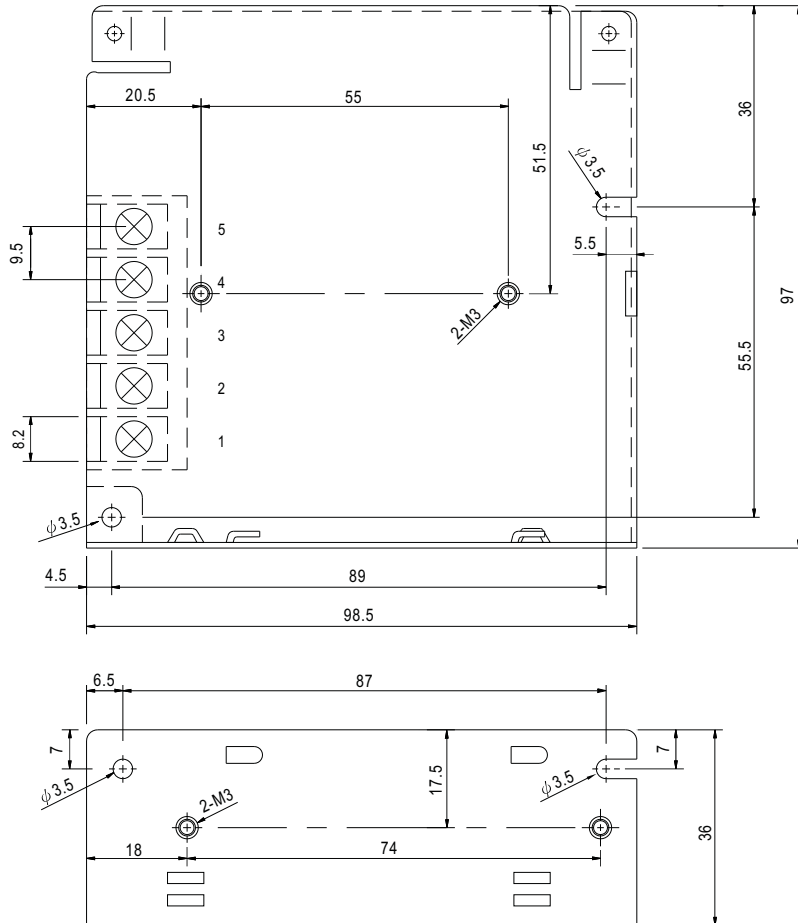


50W Single Output DC-DC Converter

SD-25 series

Mechanical Specification

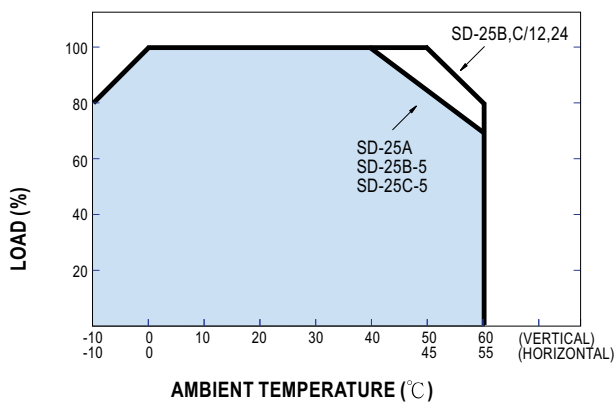
Case No. 905 Unit:mm



Terminal Pin. No Assignment

| Pin No. | Assignment | Pin No. | Assignment |
|---------|-------------|---------|--------------|
| 1 | DC INPUT V- | 4 | DC OUTPUT +V |
| 2 | DC INPUT V+ | 5 | DC OUTPUT -V |
| 3 | FG \perp | | |

Derating Curve



Static Characteristics(SD-25C-24V)

