

■ Features :

- 2:1 wide input range
- Protections: Short circuit/Over load /voltage
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Low cost
- High reliability
- 2 years warranty

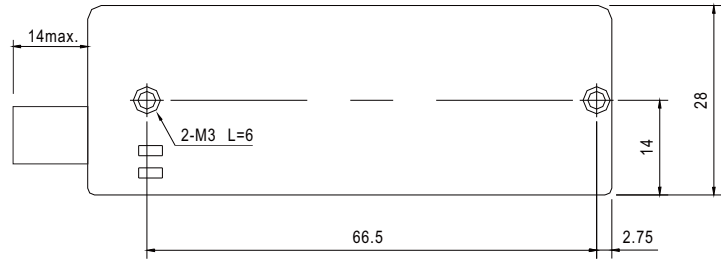
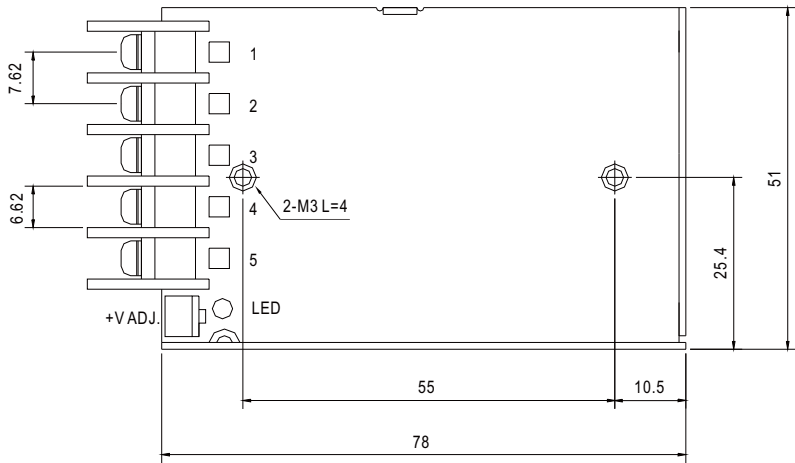
**SPECIFICATION**



| MODEL                     |   | SD-15A-05   | SD-15B-05 | SD-15C-05               | SD-15A-12    | SD-15B-12               | SD-15C-12 | SD-15A-24            | SD-15B-24 | SD-15C-24 |
|---------------------------|---|---|-----------|-------------------------|--------------|-------------------------|-----------|----------------------|-----------|-----------|
| OUTPUT                    | DC VOLTAGE  | 5V  |           |                         | 12V          |                         |           | 24V                  |           |           |
|                           | RATED CURRENT   | 3A  |           |                         | 1.25A        |                         |           | 0.625A               |           |           |
|                           | CURRENT RANGE   | 0 ~ 3A  |           |                         | 0 ~ 1.25A    |                         |           | 0 ~ 0.625A           |           |           |
|                           | RATED POWER   | 15W   |           |                         | 15W          |                         |           | 15W                  |           |           |
|                           | RIPPLE & NOISE (max.) Note.2  | 100mVp-p  |           |                         | 120mVp-p     |                         |           | 150mVp-p             |           |           |
|                           | VOLTAGE ADJ.RANGE   | 4.75~5.5VDC   |           |                         | 10.8~13.2VDC |                         |           | 21.6~26.4VDC         |           |           |
|                           | 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 UP TIME | 2.5s, 25ms, --- 12VDC/24VDC/48VDC at full load  |   |           |                         |              |                         |           |                      |           |           |
| INPUT                     | VOLTAGE RANGE   | A: 9.2 ~18VDC   |           | B:18 ~ 36VDC            |              | C:36~72VDC              |           |                      |           |           |
|                           | EFFICIENCY(Typ.)  | 68%   | 76%       | 75%                     | 72%          | 76%                     | 79%       | 70%                  | 77%       | 78%       |
|                           | DC CURRENT(Typ.)  | 1.9A/12VDC  |           | 0.9A/24VDC              |              | 0.45A/48VDC             |           |                      |           |           |
| PROTECTION                | OVER LOAD   | 105 ~ 160% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |           |                         |              |                         |           |                      |           |           |
|                           | OVER VOLTAGE  | 5.75 ~ 6.75V  |           |                         | 13.8~ 16.2V  |                         |           | 27.6 ~ 32.4V         |           |           |
| ENVIRONMENT               | WORKING TEMP.   | -10 ~ +60°C(Refer to "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)     | WITHSTAND VOLTAGE   | I/P-O/P:1.5KVAC I/P-FG:1KVAC O/P-FG:0.5KVAC   |           |                         |              |                         |           |                      |           |           |
|                           | ISOLATION RESISTANCE  | I/P-O/P,I/P-FG,O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  |           |                         |              |                         |           |                      |           |           |
|                           | EMC EMISSION  | Compliance to EN55022(CISPR22)  |           |                         |              |                         |           |                      |           |           |
|                           | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,6,8, EN55024, light industry level, criteria A  |           |                         |              |                         |           |                      |           |           |
| OTHERS                    | MTBF  | 644.2K hrs min.(SD-15A)   |           | 652.5K hrs min.(SD-15B) |              | 653.5K Hrs min.(SD-15C) |           | MIL-HDBK-217F (25°C) |           |           |
|                           | DIMENSION   | 78*51*28mm (L*W*H)  |           |                         |              |                         |           |                      |           |           |
|                           | PACKING   | 0.18kg,60 PCS/11.8kg  |           |                         |              |                         |           |                      |           |           |
| NOTE                      | <p>1. All parameters NOT specially mentioned are measured at normal input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> |   |           |                         |              |                         |           |                      |           |           |

**Mechanical Specification**

Case No. 931A Unit:mm

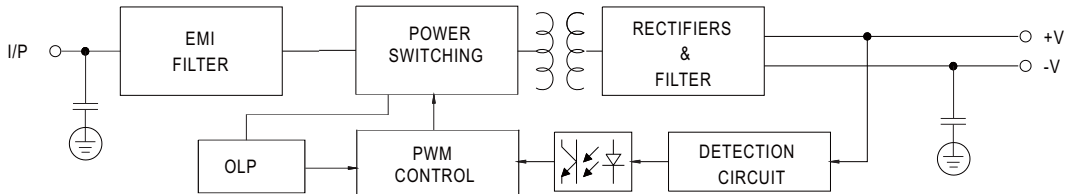


Terminal Pin No. Assignment

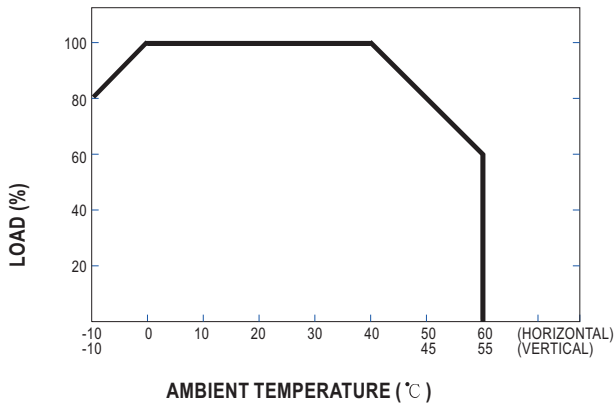
| Pin No. | Assignment  | Pin No. | Assignment   |
|---------|-------------|---------|--------------|
| 1       | DC INPUT V+ | 4       | DC OUTPUT +V |
| 2       | DC INPUT V- | 5       | DC OUTPUT -V |
| 3       | FG $\equiv$ |         |              |

**Block Diagram**

fosc : 96KHz



**Derating Curve**





■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC 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
- 2 years warranty

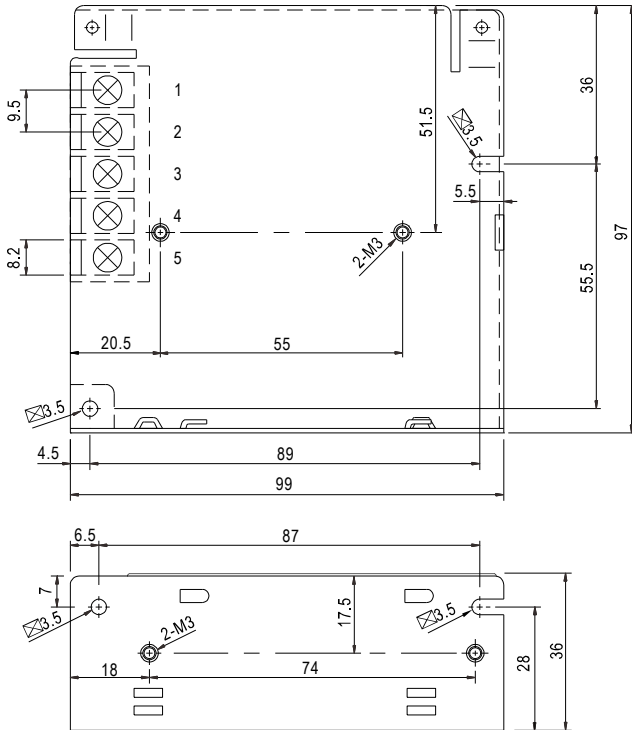


**SPECIFICATION**

| 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 UP 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                | 3.2A/12V            | 1.6A/24V                | 0.8A/48V  | 3.2A/12V              | 1.6A/24V  | 0.8A/48V |
| PROTECTION                | OVERLOAD                       | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, 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 "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:2.0KVAC O/P-FG:0.5KVAC  |          |                         |                     |                         |           |                       |           |          |
|                           | ISOLATION RESISTANCE           | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH   |          |                         |                     |                         |           |                       |           |          |
|                           | EMC EMISSION                   | Compliance to EN55022 (CISPR22) Class B  |          |                         |                     |                         |           |                       |           |          |
| OTHERS                    | EMC IMMUNITY                   | Compliance to EN61000-4-2,3,4,6,8, EN55024,heavy industry level, criteria A  |          |                         |                     |                         |           |                       |           |          |
|                           | MTBF                           | 374.3K hrs min.(SD-25A)  |          | 365.9K hrs min.(SD-25B) |                     | 377.5K Hrs min.(SD-25C) |           | MIL-HDBK-217F (25°C)  |           |          |
|                           | DIMENSION                      | 99*97*36mm (L*W*H)   |          |                         |                     |                         |           |                       |           |          |
| NOTE                      | PACKING                        | 0.38Kg; 45pcs/17.8Kg/0.9CUFT   |          |                         |                     |                         |           |                       |           |          |
|                           | NOTE                           | 1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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. |          |                         |                     |                         |           |                       |           |          |

**Mechanical Specification**

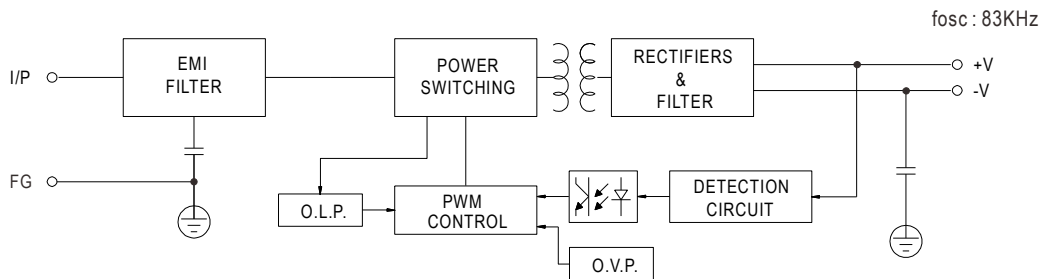
Case No. 905 Unit:mm



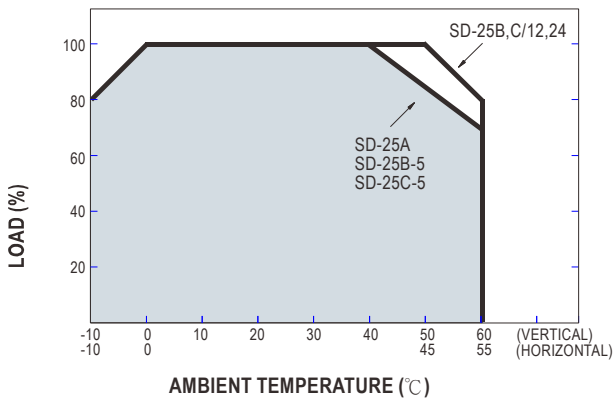
Terminal Pin No. Assignment

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

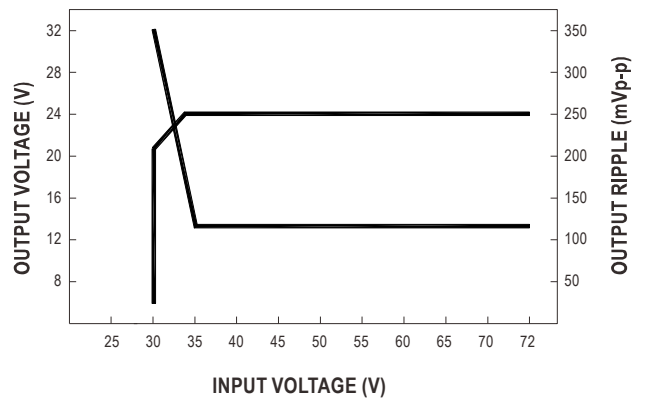
**Block Diagram**

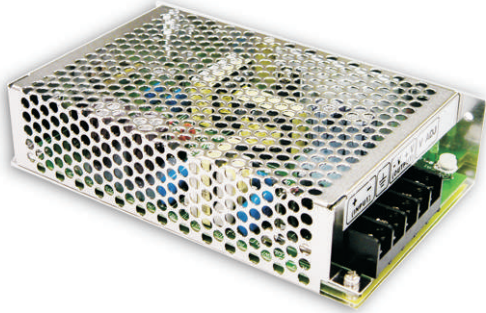


**Derating Curve**



**Static Characteristics(SD-25C-24V)**





### ■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC 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
- 2 years warranty

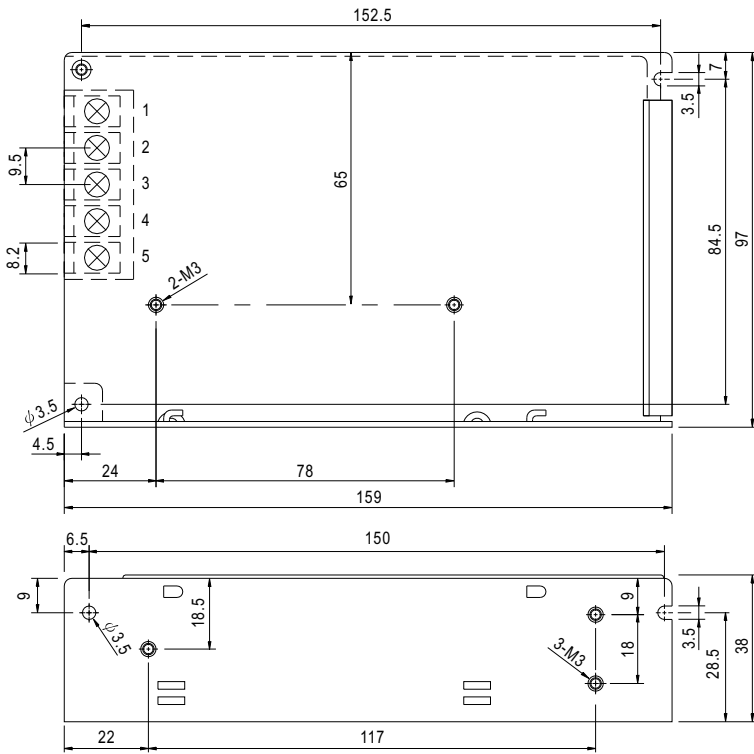


### SPECIFICATION

| MODEL                     |                                | SD-50A-5   | SD-50B-5 | SD-50C-5                | SD-50A-12           | SD-50B-12               | SD-50C-12 | SD-50A-24             | SD-50B-24 | SD-50C-24 |
|---------------------------|--------------------------------|--|----------|-------------------------|---------------------|-------------------------|-----------|-----------------------|-----------|-----------|
| OUTPUT                    | DC VOLTAGE                     | 5V   |          |                         | 12V                 |                         |           | 24V                   |           |           |
|                           | RATED CURRENT                  | 10A  |          |                         | 4.2A                |                         |           | 2.1A                  |           |           |
|                           | CURRENT RANGE                  | 0 ~ 10A  |          |                         | 0 ~ 4.2A            |                         |           | 0 ~ 2.1A              |           |           |
|                           | RATED POWER                    | 50W  |          |                         | 50.4W               |                         |           | 50.4W                 |           |           |
|                           | 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 UP TIME | 2.5s, 50ms, ----- at full load |  |          |                         |                     |                         |           |                       |           |           |
| INPUT                     | VOLTAGE RANGE                  | A:9.2 ~ 18VDC  |          | B:19 ~ 36VDC            |                     | C:36 ~ 72VDC            |           |                       |           |           |
|                           | EFFICIENCY (Typ.)              | 70%  | 73%      | 76%                     | 72%                 | 75%                     | 78%       | 74%                   | 80%       | 83%       |
|                           | DC CURRENT                     | 7A/12V   |          |                         | 3A/24V              |                         |           | 1.5A/48V              |           |           |
| PROTECTION                | OVERLOAD                       | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, 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 / 25°C / 70% RH   |          |                         |                     |                         |           |                       |           |           |
|                           | 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                           | 365.6K hrs min.(SD-50A)  |          | 357.5K hrs min.(SD-50B) |                     | 368.5K Hrs min.(SD-50C) |           | MIL-HDBK-217F (25°C)  |           |           |
|                           | DIMENSION                      | 159*97*38mm (L*W*H)  |          |                         |                     |                         |           |                       |           |           |
| NOTE                      | PACKING                        | 0.48Kg; 24pcs/12.7Kg/0.75CUFT  |          |                         |                     |                         |           |                       |           |           |
|                           |                                | 1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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. |          |                         |                     |                         |           |                       |           |           |

**Mechanical Specification**

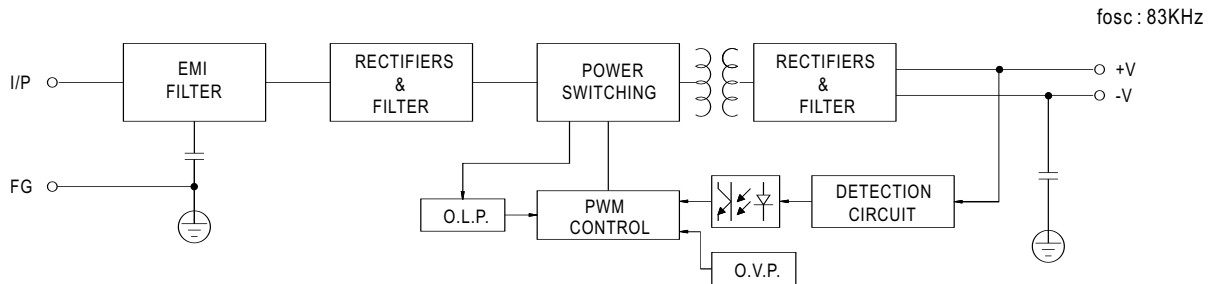
Case No. 901 Unit:mm



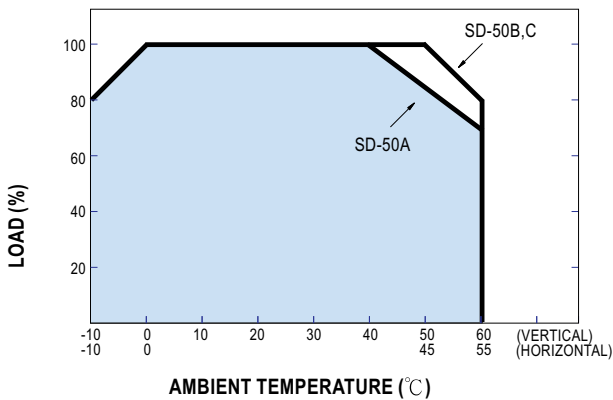
Terminal Pin No. Assignment

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

**Block Diagram**



**Derating Curve**



**Static Characteristics(SD-50C-24V)**

