



## ■ Features :

- 2:1 wide input range
- 1500VDC I/O isolation
- Built-in remote ON/OFF control
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Five-sided shield metal case
- 100% full load burn-in test
- Low cost / High reliability
- Modified models available: output 2.5V/3.3V
- 2 years warranty

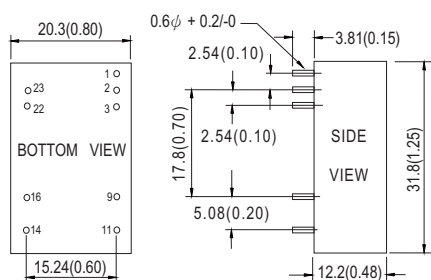


## SPECIFICATION

| ORDER NO.                              |                                             | SCW12A-05                                                                              | SCW12B-05                       | SCW12C-05 | SCW12A-12    | SCW12B-12 | SCW12C-12 | SCW12A-15   | SCW12B-15 | SCW12C-15 |  |
|----------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------|-----------|--------------|-----------|-----------|-------------|-----------|-----------|--|
| OUTPUT                                 | DC VOLTAGE                                  | 5V                                                                                     |                                 |           | 12V          |           |           | 15V         |           |           |  |
|                                        | CURRENT RANGE                               | 480 ~ 2400mA                                                                           |                                 |           | 200 ~ 1000mA |           |           | 160 ~ 800mA |           |           |  |
|                                        | RATED POWER                                 | 12W                                                                                    |                                 |           |              |           |           |             |           |           |  |
|                                        | RIPPLE & NOISE (max.) <small>Note.2</small> | 50mVp-p                                                                                |                                 |           | 60mVp-p      |           |           | 60mVp-p     |           |           |  |
|                                        | LINE REGULATION <small>Note.3</small>       | ±0.5%                                                                                  |                                 |           |              |           |           |             |           |           |  |
|                                        | LOAD REGULATION <small>Note.4</small>       | ±0.5%                                                                                  |                                 |           |              |           |           |             |           |           |  |
|                                        | VOLTAGE ACCURACY                            | ±2.0%                                                                                  |                                 |           |              |           |           |             |           |           |  |
|                                        | SWITCHING FREQUENCY                         | 400KHz min.                                                                            |                                 |           |              |           |           |             |           |           |  |
| EXTERNAL CAPACITANCE LOAD (max.)       |                                             | 1000uF                                                                                 |                                 |           | 220uF        |           |           | 220uF       |           |           |  |
| INPUT                                  | VOLTAGE RANGE                               | A: 9 ~ 18VDC   B: 18 ~ 36VDC   C: 36 ~ 72VDC                                           |                                 |           |              |           |           |             |           |           |  |
|                                        | EFFICIENCY (Typ.)                           | 82%                                                                                    | 83%                             | 84%       | 82%          | 83%       | 83%       | 82%         | 85%       | 83%       |  |
|                                        | DC CURRENT                                  | Full load                                                                              | A: 1245mA   B: 625mA   C: 320mA |           |              |           |           |             |           |           |  |
|                                        |                                             | No load                                                                                | A: 70mA   B: 35mA   C: 25mA     |           |              |           |           |             |           |           |  |
|                                        | FILTER                                      | Pi network                                                                             |                                 |           |              |           |           |             |           |           |  |
| PROTECTION                             |                                             | Fuse recommended                                                                       |                                 |           |              |           |           |             |           |           |  |
| PROTECTION<br><small>(Note. 5)</small> | OVERLOAD                                    | 110 ~ 180% rated output power                                                          |                                 |           |              |           |           |             |           |           |  |
|                                        |                                             | Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                 |           |              |           |           |             |           |           |  |
|                                        | SHORT CIRCUIT                               | All output equipped with short circuit                                                 |                                 |           |              |           |           |             |           |           |  |
|                                        |                                             | Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                 |           |              |           |           |             |           |           |  |
| ENVIRONMENT                            | WORKING TEMP.                               | -40 ~ +71℃ (Refer to "Derating Curve")                                                 |                                 |           |              |           |           |             |           |           |  |
|                                        | WORKING HUMIDITY                            | 20% ~ 90% RH non-condensing                                                            |                                 |           |              |           |           |             |           |           |  |
|                                        | STORAGE TEMP., HUMIDITY                     | -40 ~ +105℃, 10 ~ 95% RH                                                               |                                 |           |              |           |           |             |           |           |  |
|                                        | TEMP. COEFFICIENT                           | ±0.05% / °C (0 ~ 50℃)                                                                  |                                 |           |              |           |           |             |           |           |  |
|                                        | VIBRATION                                   | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes               |                                 |           |              |           |           |             |           |           |  |
| SAFETY                                 | SAFETY STANDARDS                            | EAC TP TC 004 approved                                                                 |                                 |           |              |           |           |             |           |           |  |
|                                        | WITHSTAND VOLTAGE                           | I/P-O/P: 1.5KVDC                                                                       |                                 |           |              |           |           |             |           |           |  |
|                                        | ISOLATION RESISTANCE                        | I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH                                             |                                 |           |              |           |           |             |           |           |  |
|                                        | ISOLATION CAPACITANCE                       | 2200pF max.                                                                            |                                 |           |              |           |           |             |           |           |  |
|                                        | EMC EMISSION                                | Compliance to EN55032 Class A, FCC part 15 Class A, EAC TP TC 020                      |                                 |           |              |           |           |             |           |           |  |
|                                        | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8 light industry level, criteria A, EAC TP TC 020    |                                 |           |              |           |           |             |           |           |  |
| OTHERS                                 | REMOTE CONTROL                              | Power ON: R.C. ~ -Vin > 4VDC or open ; Power OFF: R.C. ~ -Vin < 1VDC or short          |                                 |           |              |           |           |             |           |           |  |
|                                        | MTBF                                        | 600Khrs min. MIL-HDBK-217F(25℃)                                                        |                                 |           |              |           |           |             |           |           |  |
|                                        | DIMENSION                                   | 31.8*20.3*12.2mm or 1.25**0.80**0.48" inch (L*W*H)                                     |                                 |           |              |           |           |             |           |           |  |
|                                        | WEIGHT                                      | 18.5g                                                                                  |                                 |           |              |           |           |             |           |           |  |

## ■ Mechanical Specification

Unit:mm(inch)

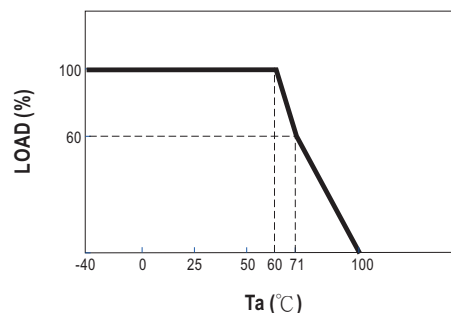


Pin Size is Tolerance 0.5±0.05mm, Tolerance .X or .XX= ±0.5mm

## ■ Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | R.C.   |
| 2 & 3   | -Vin   |
| 9       | N.C.   |
| 11      | N.C.   |
| 14      | +Vout  |
| 16      | -Vout  |
| 22 & 23 | +Vin   |

## ■ Derating Curve



## NOTE

- 1.All parameters are specified at normal input, rated load, 25°C 70% RH ambient.
- 2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
- 3.Line regulation is measured from low line to high line at rated load.
- 4.Load regulation is measured from 20% to 100% rated load.
- 5.Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.