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Jameco Part Number 213269



- Features :
  - 2:1 wide input range
  - 4:1 wide input range(option)
  - 1000VDC I/O isolation
  - 3000VDC I/O isolation(option)
  - Input Pi network filter
  - Protections: Short circuit / Overload
  - Cooling by free air convection
  - Five-sided shield metal case
  - 100% burn-in test
  - Low cost / High reliability
  - Approvals: FCC / CE
  - 1 year warranty

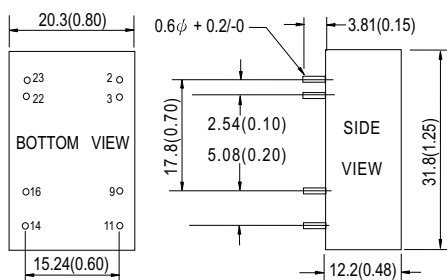


## SPECIFICATION

ORDER NO.	SCW03A-05	SCW03B-05	SCW03C-05	SCW03A-12	SCW03B-12	SCW03C-12	SCW03A-15	SCW03B-15	SCW03C-15	
OUTPUT	DC VOLTAGE	5V			12V			15V		
	CURRENT RANGE	60 ~ 600mA			25 ~ 250mA			20 ~ 200mA		
	RATED POWER	3W								
	RIPPLE & NOISE (max.) Note.2	50mVp-p			60mVp-p			60mVp-p		
	LINE REGULATION Note.3	±0.5%								
	LOAD REGULATION Note.4	±0.5%								
	VOLTAGE ACCURACY	±2.0%								
	SWITCHING FREQUENCY	50KHz min.								
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC								
	EFFICIENCY (Typ.)	74%	75%	76%	80%	80%	82%	80%	80%	82%
	DC CURRENT	Full load A: 338mA B: 167mA C: 83mA No load A: 18mA B: 10mA C: 5mA								
	FILTER	Pi network								
PROTECTION (Note. 5)	OVERLOAD	160 ~ 250% 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.	-25 ~ +71°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-25 ~ +105°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P: 1KVDC								
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH								
	ISOLATION CAPACITANCE	80pF max.								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A								
OTHERS	MTBF	900khrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	31.8*20.3*12.2mm or 1.25*0.80*0.48" inch (L*W*H)								
	WEIGHT	15g								

### Mechanical Specification

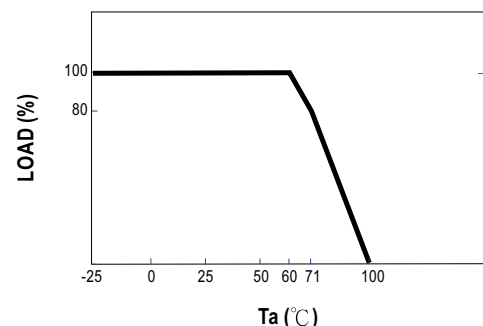
Unit:mm(inch)



### Pin Configuration

Pin no.	Output Single
2 & 3	-Vin
9	N.C.
11	N.C.
14	+Vout
16	-Vout
22 & 23	+Vin

### Derating Curve



### NOTE

- All parameters are specified at normal input, rated load, 25°C 70% RH Ambient.
- Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
- Line regulation is measured from low line to high line at rated load.
- Load regulation is measured from 10% to 100% rated load.
- Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.

# Quality Engineering Test Report

**SERIES: SCW03A**

**3W DC-DC SINGLE OUTPUT CONVERTER**

**SAMPLE:           A:SCW03A-05           +5V / 600mA**  
**B:SCW03A-12           +12V/250mA**  
**C:SCW03A-15           +15V/200mA**

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	DC INPUT VOLTAGE RANGE	I/P : TESTING           SPEC : 9~18VDC O/P : FULL LOAD	A:5.7~18VDC	P
2	LINE REGULATION	I/P : 9~18VDC           SPEC : 0.5% MAX O/P : FULL LOAD	A:-0%~+0.1% B:-0%~+0.1% C:-0%~+0%	P
3	LOAD REGULATION	I/P : 12VDC           SPEC : ±1% O/P : MIN. TO FULL LOAD	A:-0.2%~+0% B:-0%~+0.1% C:-0.04%~+0.06%	P
4	OUTPUT VOLTAGE TOLERANCE	I/P : 9~18VDC           SPEC : NONE O/P : MIN. TO FULL LOAD	A:-0.2%~+0.1% B:-0.1%~+0.1% C:-0.04%~+0.06%	P
5	RIPPLE & NOISE	I/P : 12VDC           SPEC : 100mV O/P : FULL LOAD	A:30mV B:20mV C:10mV	P
6	DC INPUT CURRENT	I/P : 12VDC           SPEC : NONE O/P : FULL LOAD	A:0.32A	P
7	OVER LOAD PROTECTION	I/P : 12VDC           SPEC : NONE O/P : TESTING	A:166% B:188% C:200%	P
8	O/P VOLTAGE ACCURACY	I/P : 12VDC           SPEC : ±2% O/P : MIN. LOAD	A:+0.40% B:+0.17% C:+0%	P
9	SET UP TIME	I/P : 12VDC           SPEC : NONE O/P : FULL LOAD	A:2.04mS	P
10	HOLD UP TIME	I/P : 12VDC           SPEC : NONE O/P : FULL LOAD	A:0.2mS	P
11	EFFICIENCY	I/P : 12VDC           SPEC : 73% O/P : FULL LOAD	A:78.4% B:80.7% C:83.3%	P
12	INSULATION RESISTANCE	SPEC : I/P – O/P   500VDC/100MΩ MIN.	A:I/P – O/P > 100M Ω	P
13	DIELECTRIC / WITHSTAND VOLTAGE	SPEC : I/P – O/P :   1000VDC/ 1 min (10mA CUT-OFF)	A:NO BREAK I/P – O/P : < 0.02mA	P
14	BURN-IN TEST	I/P:12VDC           O/P:FULL LOAD TA:25 °C           BURN-IN DURATION : 4 hrs	A:NO BREAK B:NO BREAK C:NO BREAK	P

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT								
15	TEMPERATURE RISE TEST $\Delta T$ OF PARTS	A:I/P : 12VDC      AFTER 4 hrs BURN-IN O/P : FULL LOAD    TA : 25 °C <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>POSITION</th> <th>SAMPLE</th> <th>TEMP</th> <th><math>\Delta T</math></th> </tr> </thead> <tbody> <tr> <td>CASE</td> <td>SCW03A-05</td> <td>37.0 °C</td> <td>12.0 °C</td> </tr> </tbody> </table>	POSITION	SAMPLE	TEMP	$\Delta T$	CASE	SCW03A-05	37.0 °C	12.0 °C		P
POSITION	SAMPLE	TEMP	$\Delta T$									
CASE	SCW03A-05	37.0 °C	12.0 °C									
16	CONSTRUCTION INSPECTION ( FOR QC INSPECTION REFERENCE ONLY )	1. PACKING : 軌道型塑膠加紙盒包裝 2. MARKING : MODEL 3. MECHANICAL : SIX-SIDED SHIELD METAL CASE 4. DIMENSIONS : WXHxD=31.8X12.2X20.3mm										
DATE	SAMPLE	TEST RESULT	TEST	APPROVAL								
1998.08.15	SCW03A-05	PASS	鄭讚國	MAX LIN								
1999.01.28	SCW03A-12 SCW03A-15	PASS	鄭讚國	MAX LIN								