



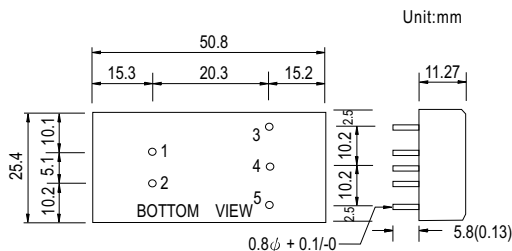
- Features :
  - 2:1 wide input range
  - 4:1 wide input range(option)
  - 1000VDC I/O isolation
  - 3000VDC I/O isolation(option)
  - Built-in EMI filter
  - Protections: Short circuit / Overload
  - Cooling by free air convection
  - Six-sided shield metal case
  - 100% burn-in test
  - Low cost /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



**SPECIFICATION**

ORDER NO.	SLW05A-05	SLW05B-05	SLW05C-05	SLW05A-09	SLW05B-09	SLW05C-09	SLW05A-12	SLW05B-12	SLW05C-12	SLW05A-15	SLW05B-15	SLW05C-15			
<b>OUTPUT</b>	<b>DC VOLTAGE</b>			5V			9V			12V			15V		
	<b>CURRENT RANGE</b>			100 ~ 1000mA			55.6 ~ 556mA			41.7 ~ 417mA			33.3 ~ 333mA		
	<b>RATED POWER</b>			5W											
	<b>VOLTAGE ACCURACY</b>			±2.0%											
	<b>RIPPLE &amp; NOISE (max.)</b> Note.2			50mVp-p			60mVp-p			60mVp-p			60mVp-p		
	<b>LINE REGULATION</b> Note.3			±0.2%											
	<b>LOAD REGULATION</b> Note.4			±0.5%											
	<b>SWITCHING FREQUENCY</b>			50KHz min.											
<b>INPUT</b>	<b>VOLTAGE RANGE</b>														
	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC														
	<b>EFFICIENCY (Typ.)</b>														
	75%    77%    77%    80%    80%    83%    80%    80%    83%    81%    81%    85%														
	<b>DC CURRENT</b>														
Full load    A: 556mA    B: 270mA    C: 135mA															
No load    A: 33mA    B: 16mA    C: 10mA															
<b>FILTER</b>															
Pi network															
<b>PROTECTION</b>															
Fuse recommended															
<b>PROTECTION (Note. 5)</b>	<b>OVER CURRENT</b>														
	160 ~ 250% rated output power														
	Protection type : Hiccup mode, recovers automatically after fault condition is removed														
<b>SHORT CIRCUIT</b>															
All output equipped with short circuit															
Protection type : Hiccup mode, recovers automatically after fault condition is removed															
<b>ENVIRONMENT</b>	<b>WORKING TEMP.</b>														
	-25 ~ +71°C (Refer to output load derating curve)														
	<b>WORKING HUMIDITY</b>														
	20% ~ 90% RH non-condensing														
	<b>STORAGE TEMP., HUMIDITY</b>														
-25 ~ +105°C, 10 ~ 95% RH															
<b>TEMP. COEFFICIENT</b>															
±0.03%/°C (0 ~ 50°C)															
<b>VIBRATION</b>															
10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes															
<b>SAFETY &amp; EMC</b>	<b>WITHSTAND VOLTAGE</b>														
	I/P-O/P:1KVDC														
	<b>ISOLATION RESISTANCE</b>														
	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH														
<b>EMI CONDUCTION &amp; RADIATION</b>															
Compliance to EN55022 Class B, FCC part 15 Class B															
<b>EMS IMMUNITY</b>															
Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A															
<b>OTHERS</b>	<b>MTBF</b>														
	800khrs min. MIL-HDBK-217F(25°C)														
	<b>DIMENSION</b>														
50.8*25.4*11.27mm or 2**1**0.44" inch (L*W*H)															
<b>WEIGHT</b>															
32g															

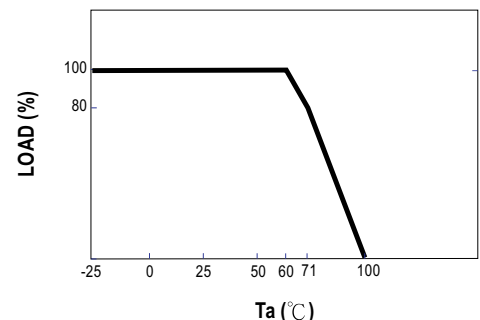
**Mechanical Specification**



**Pin Configuration**

Pin no.	Output Single
1	+Vin
2	-Vin
3	+Vout
4	No Pin
5	-Vout

**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 10% to 100% rated load.
5. Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.

# Quality Engineering Test Report

**SERIES: SLW05A 5W DC-DC SINGLE OUTPUT CONVERTER**

**SAMPLE:**      **A:SLW05A-05      +5V / 1000mA**  
                   **B:SLW05A-09      +9V / 556mA**  
                   **C:SLW05A-12      +12V / 417mA**  
                   **D:SLW05A-15      +15V / 333mA**

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	DC INPUT VOLTAGE RANGE	I/P : TESTING      SPEC : 9~18VDC O/P : FULL LOAD	A:5.8~18VDC	P
2	LINE REGULATION	I/P : 9~18VDC      SPEC : $\pm 0.2\%$ O/P : FULL LOAD	A:-0%~+0% B:-0%~+0% C:-0%~+0% D:-0%~+0%	P
3	LOAD REGULATION	I/P : 12VDC      SPEC : $\pm 1\%$ O/P : MIN. TO FULL LOAD	A:-0.2%~+0% B:-0.1%~+0% C:-0.1%~+0% D:-0.1%~+0%	P
4	OUTPUT VOLTAGE TOLERANCE	I/P : 9~18VDC      SPEC : NONE O/P : MIN. TO FULL LOAD	A:-0.2%~+0% B:-0.1%~+0% C:-0.1%~+0% D:-0.1%~+0%	P
5	RIPPLE & NOISE	I/P : 12VDC      SPEC : 100mV O/P : FULL LOAD	A:20mV B:20mV C:10mV D:10mV	P
6	DC INPUT CURRENT	I/P : 12VDC      SPEC : NONE O/P : FULL LOAD	A:0.54A	P
7	OVER LOAD PROTECTION	I/P : 12VDC      SPEC : NONE O/P : TESTING	A:179% B:183% C:195% D:212%	P
8	O/P VOLTAGE ACCURACY	I/P : 12VDC      SPEC : $\pm 2\%$ O/P : MIN. LOAD	A:+0.4% B:+1.1% C:+1.1% D:+0.4%	P
9	SET UP TIME	I/P : 12VDC      SPEC : NONE O/P : FULL LOAD	A:1.8mS	P
10	HOLD UP TIME	I/P : 12VDC      SPEC : NONE O/P : FULL LOAD	A:0.23mS	P
11	EFFICIENCY	I/P : 12VDC      SPEC : 73% O/P : FULL LOAD	A:77.1% B:79.5% C:79.4% D:80.7%	P
12	INSULATION RESISTANCE	SPEC : I/P – O/P 500VDC/1000M $\Omega$ MIN.	A:I/P – O/P > 100M $\Omega$	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

**NEXT**

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT								
14	BURN-IN TEST	I/P:12VDC TA:25 °C O/P:FULL LOAD BURN-IN DURATION : 4 hrs	A:NO BREAK	P								
15	TEMPERATURE RISE TEST $\Delta T$ OF PARTS	A:I/P : 12VDC O/P : FULL LOAD TA : 25 °C AFTER 4 hrs BURN-IN	<table border="1"> <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>SLW05A-05</td> <td>44.2 °C</td> <td>19.2 °C</td> </tr> </tbody> </table>	POSITION	SAMPLE	TEMP	$\Delta T$	CASE	SLW05A-05	44.2 °C	19.2 °C	P
POSITION	SAMPLE	TEMP	$\Delta T$									
CASE	SLW05A-05	44.2 °C	19.2 °C									
16	CONSTRUCTION INSPECTION ( FOR QC INSPECTION REFERENCE ONLY )	A: 1. PACKING : 泡棉加紙盒包裝 2. MARKING : MODEL 3. MECHANICAL : FIVE-SIDED SHIELD METAL CASE 4. DIMENSIONS : WXHxD=31.8X12.2X20.3mm										
DATE	SAMPLE	TEST RESULT	TEST	APPROVAL								
1998.08.15	SLW05A-05	PASS	鄭讚國	MAX LIN								
1998.11.26	SLW05A-09 SLW05A-12 SLW05A-15	PASS	鄭讚國	MAX LIN								