



Test Report : DCWN06A-05

5W DIP Package DC-DC Regulated Converter

■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

■ SAFETY TEST

Safety Test

■ RELIABILITY TEST

Environment Test

Other

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-1.5 % ~ +1.5 % (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1: +0.31% V2: -0.50%	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	V1: 16mV V2: 24mV	P
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:9VDC-18VDC O/P:FULL LOAD Ta:25°C	V1: -0.13% ~ +0.04% V2: -0.12% ~ +0.04%	P
4	LOAD REGULATION	-1.0% ~ +1.0% (Max)	I/P:12VDC O/P:25% LOAD-FULL LOAD Ta:25°C	V1: -0.12% ~ +0.01% V2: -0.12% ~ +0.06%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	9 VDC ~18 VDC	I/P:TESTING O/P:FULL LOAD Ta:25°C	8.09VDC ~18.0 VDC	P
2	EFFICIENCY	80 % (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	80.6%	P
3.	DC CURRENT	514 mA / FULL LOAD (Max) 10 mA / NO LOAD (Max)	I/P:12VDC O/P:NO / FULL LOAD Ta:25°C	513 mA / FULL LOAD 8.0 mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	SHORT PROTECTION	CONTINUOUS	I/P:18VDC O/P:FULL LOAD Ta:25°C	HICCUP MODE AUTO-RECOVER	P
2	OVER LOAD PROTECTION	120% ~250%	I/P:12VDC O/P:TESTING Ta:25°C	168.2% HICCUP MODE AUTO-RECOVER	P
3	Under Voltage Lockout	Power Up 8.8Vdc Power Down 8Vdc	I/P:12VDC O/P:NO LOAD Ta:25°C	Power Up 8.95Vdc Power Down 8.09Vdc	P

SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:3K VDC/min	I/P-O/P:3K VDC/min Ta:25°C	I/P-O/P: 0.002 mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>100MΩ NO DAMAGE	P

RELIABILITY TEST

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT							
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 8HRS I/P:12VDC O/P:FULL LOAD Ta=25°C 2. HIGH AMBIENT BURN-IN : 8HRS I/P:12VDC O/P:FULL LOAD Ta=80°C			P							
		<table border="1"> <thead> <tr> <th>NO</th> <th>Position</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CASE</td> <td>54.1°C</td> <td>106.4°C</td> </tr> </tbody> </table>		NO		Position	1	2	1	CASE	54.1°C	106.4°C
NO	Position	1	2									
1	CASE	54.1°C	106.4°C									
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:12VDC O/P: FULL LOAD Ta= -40°C	TEST : OK	P							

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F,GB,25°C TOTAL FAILURE RATE : 0.555 M.T.B.F : 1801475HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ARCHEN HSIAO	VINCENT ZENG