



Test Report : DCWN03E-05

3W 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

DESIGN VERIFY TEST

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE ACCURACY	-1.5 % ~ +1.5 % (Max)	I/P:5VDC O/P:FULL LOAD Ta:25°C	V1 +0.02 % V2 +0.04 %	P
2	RIPPLE & NOISE	50 mVp-p (Max)	I/P:5VDC O/P:FULL LOAD Ta:25°C	V1 26.0 mV V2 20.4 mV	P
3	LINE REGULATION	-0.5% ~ +0.5% (Max)	I/P:4.5VDC~9VDC O/P:FULL LOAD Ta:25°C	V1 -0.02% ~ +0.04% V2 +0.02%~ +0.02%	P
4	LOAD REGULATION	-1.0% ~ +1.0% (Max)	I/P:5VDC O/P:25% LOAD~FULL LOAD Ta:25°C	V1 -0.04 % ~ +0.04 % V2 -0.01 % ~ +0.01 %	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	EFFICIENCY	77 % (Typ)	I/P:5VDC O/P:FULL LOAD Ta:25°C	77.1 %	P
2	DC CURRENT	779 mA / FULL LOAD (Max) 25 mA / NO LOAD (Max)	I/P:5VDC O/P:NO / FULL LOAD Ta:25°C	778 mA / FULL LOAD 14 mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	120%~250% LOAD (Typ)	I/P:5VDC O/P:TESTING Ta:25°C	148.3 %	P
2	INPUT UNDER VOLTAGE PROTECTION	POWER DOWN 4.2V (Typ) POWER UP 4.4V (Typ)	I/P:TESTING O/P: 10% LOAD Ta:25°C	POWER DOWN:3.92V POWER UP:4.14V	P
3	SHORT PROTECTION	CONTINUOUS	I/P:9VDC O/P:FULL LOAD Ta:25°C	NO DAMAGE OK	P

■ SAFETY TEST

SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:3000 VDC/min	I/P-O/P:3000 VDC/min Ta:25℃	I/P-O/P: 0.002mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P: 500 VDC Ta:25℃	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 : 12HRS I/P:5VDC O/P:FULL LOAD Ta=25℃ 2. HIGH AMBIENT BURN-IN : 12HRS I/P:5VDC O/P:FULL LOAD Ta=85℃ <table><tr><th>NO</th><th>Position</th><th>1</th><th>2</th></tr><tr><td>1</td><td>CASE</td><td>37.6℃</td><td>97.9℃</td></tr></table>			NO	Position	1	2	1	CASE	37.6℃	97.9℃		P
NO	Position	1	2											
1	CASE	37.6℃	97.9℃											
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P:5VDC O/P: FULL LOAD Ta= -40℃	TEST : OK	P									

OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	MTBF	MIL-HDBK-217F,GB,25℃ TOTAL FAILURE RATE : 0.353 M.T.B.F : 2,834,586 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	ALROY WANG	VINCENT ZENG