

# TEST DATA OF MUW100512

Regulated DC Power Supply  
May.7. 2025

Approved by : Kenichi Tsukada  
Design Manager

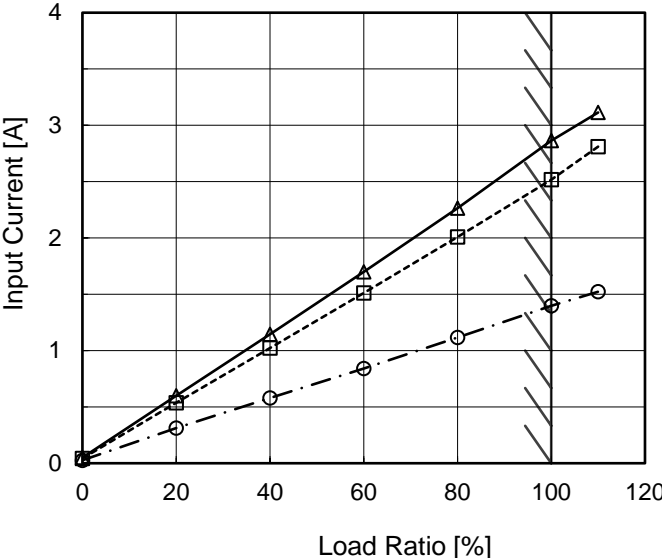
Prepared by : Yoshihiko Saeki  
Design Engineer

**COSEL CO.,LTD.**

## CONTENTS

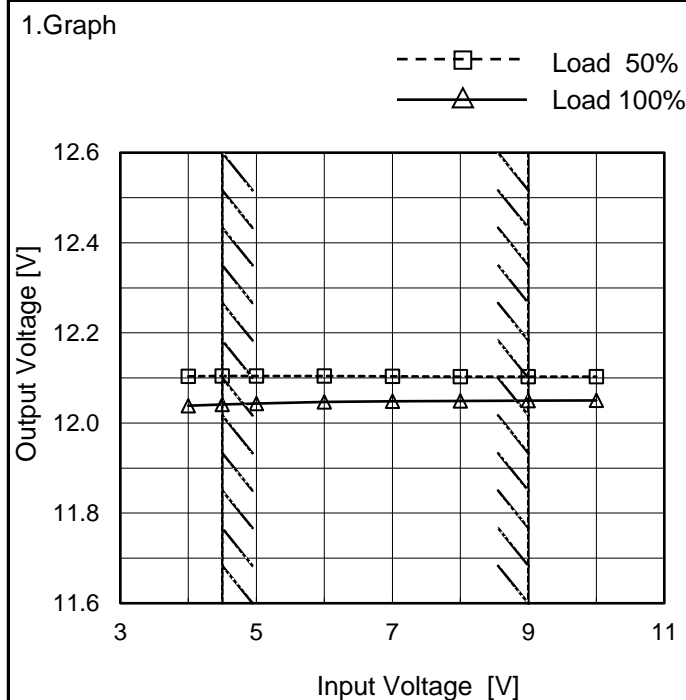
1.Input Current (by Load Current) . . . . .	1
2.Efficiency (by Load Current) . . . . .	2
3.Line Regulation . . . . .	3
4.Load Regulation . . . . .	4, 5
5.Ripple-Noise . . . . .	4, 5
6.Dynamic Load Response . . . . .	6, 7
7.Rise and Fall Time . . . . .	8, 9
8.Overcurrent Protection . . . . .	10
9.Ambient Temperature Drift . . . . .	11, 12
10.Minimum Input Voltage for Regulated Output Voltage . . . . .	11, 12
11.Figure of Testing Circuitry . . . . .	13

(Final Page 13)

Model		MUW100512	Temperature 25°C																																																				
Item		Input Current (by Load Current)	Testing Circuitry Figure A																																																				
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1.Graph		<div><div><div>—△—</div><div>Input Volt. 4.5V</div></div><div><div>---□---</div><div>Input Volt. 5V</div></div><div><div>---○---</div><div>Input Volt. 9V</div></div></div> 	2.Values																																																				
			<table><tr><th rowspan="2">Load Ratio [%]</th><th colspan="3">Input Current [A]</th></tr><tr><th>Input Volt. 4.5[V]</th><th>Input Volt. 5[V]</th><th>Input Volt. 9[V]</th></tr><tr><td>0</td><td>0.050</td><td>0.043</td><td>0.026</td></tr><tr><td>20</td><td>0.599</td><td>0.536</td><td>0.311</td></tr><tr><td>40</td><td>1.144</td><td>1.023</td><td>0.581</td></tr><tr><td>60</td><td>1.699</td><td>1.513</td><td>0.840</td></tr><tr><td>80</td><td>2.265</td><td>2.009</td><td>1.118</td></tr><tr><td>100</td><td>2.864</td><td>2.517</td><td>1.398</td></tr><tr><td>110</td><td>3.114</td><td>2.811</td><td>1.523</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Ratio [%]	Input Current [A]			Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]	0	0.050	0.043	0.026	20	0.599	0.536	0.311	40	1.144	1.023	0.581	60	1.699	1.513	0.840	80	2.265	2.009	1.118	100	2.864	2.517	1.398	110	3.114	2.811	1.523	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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Model		MUW100512	Temperature		25°C																																																			
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Model	MUW100512
Item	Line Regulation
Object	+12V0.45A



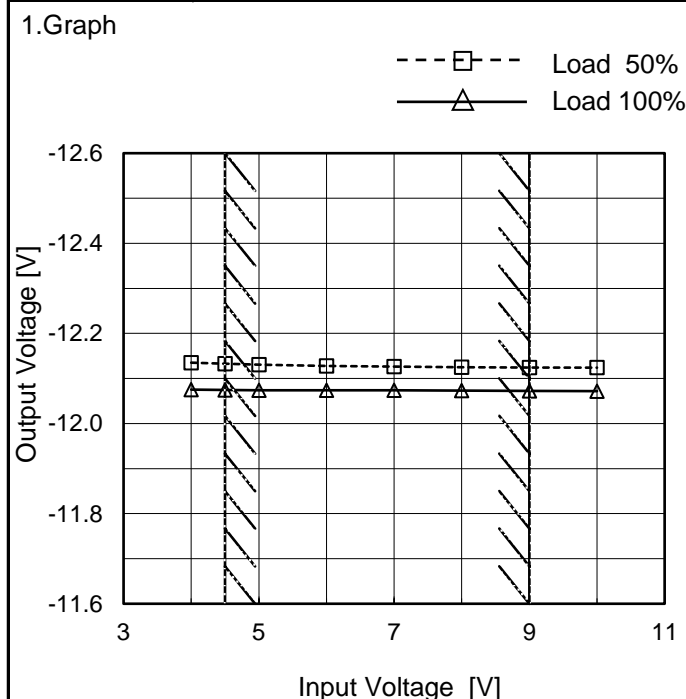
Temperature 25°C  
Testing Circuitry Figure A

## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
4.0	12.104	12.038
4.5	12.105	12.041
5.0	12.104	12.043
6.0	12.104	12.047
7.0	12.104	12.048
8.0	12.103	12.049
9.0	12.103	12.050
10.0	12.103	12.050
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-12V: Rated Load Current

Object	-12V0.45A
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## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
4.0	-12.135	-12.075
4.5	-12.133	-12.075
5.0	-12.131	-12.074
6.0	-12.128	-12.074
7.0	-12.126	-12.073
8.0	-12.125	-12.073
9.0	-12.124	-12.072
10.0	-12.124	-12.072
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+12V: Rated Load Current

Note: Slanted line shows the range of the rated input voltage.

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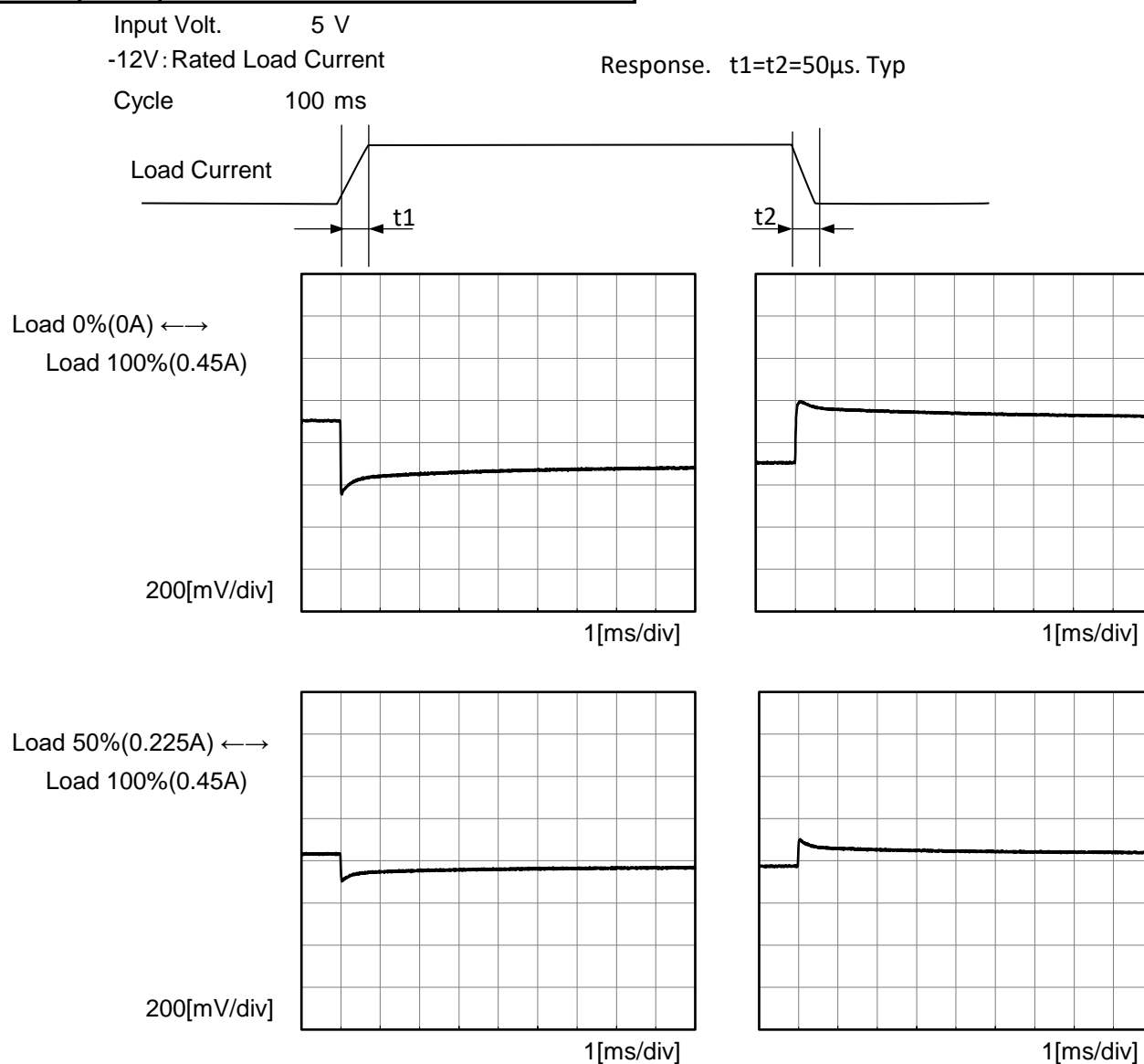
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Model	MUW100512																																																					
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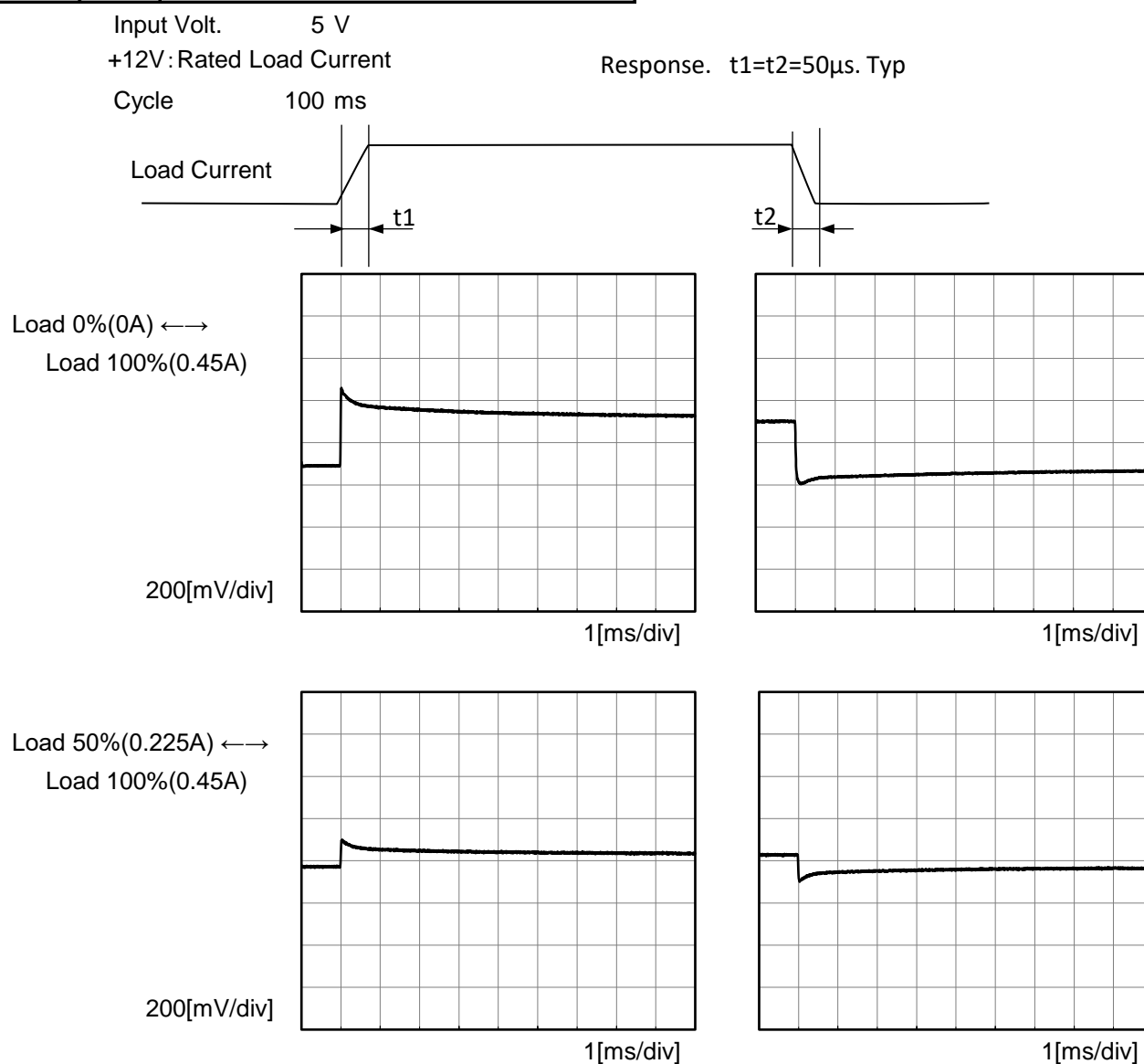
BC-12146

Model	MUW100512	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+12V0.45A	



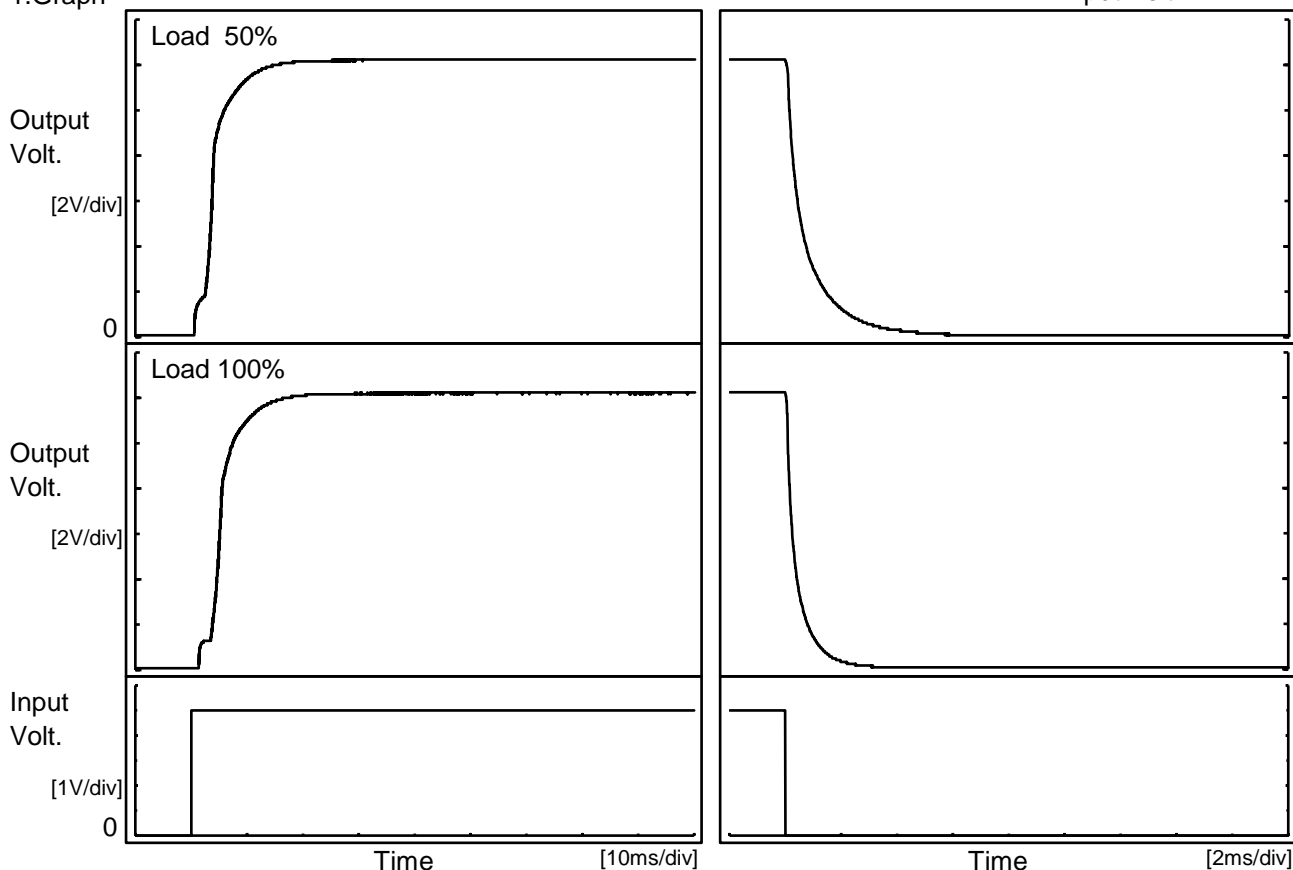


Model	MUW100512	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	-12V0.45A	



Model	MUW100512	Temperature 25°C Testing Circuitry Figure A
Item	Rise and Fall Time	
Object	+12V0.45A	

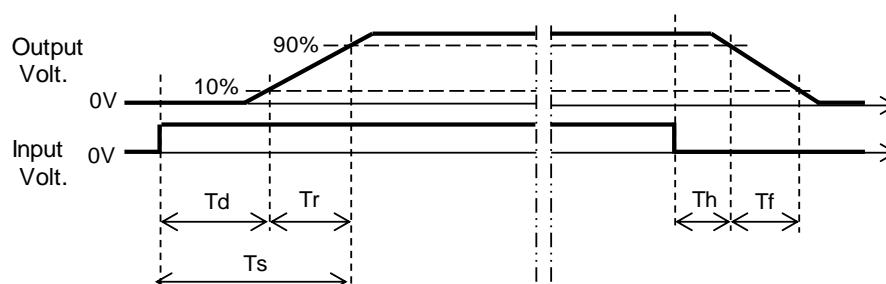
### 1.Graph



-12V: Load Current is same as +12V

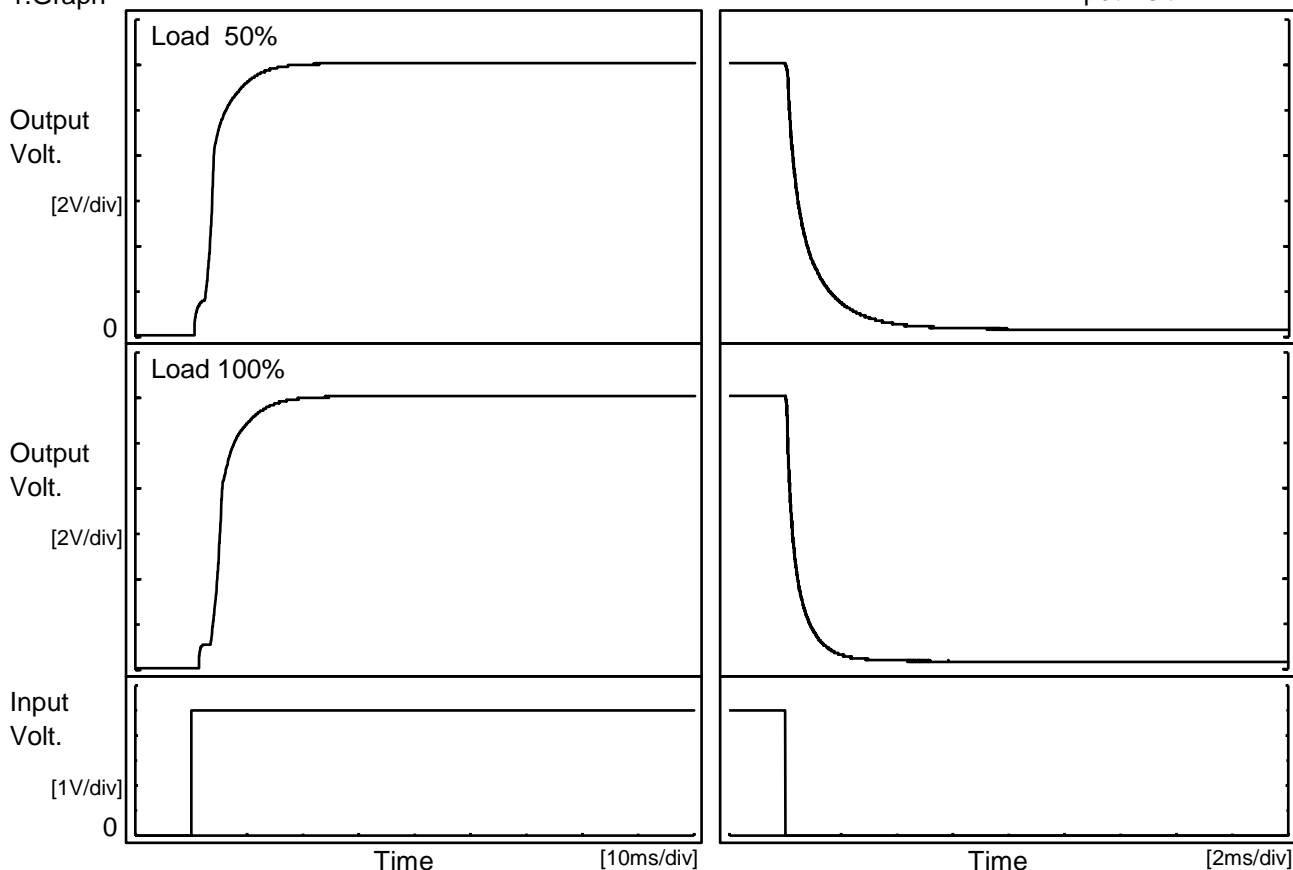
### 2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		1.0	7.0	8.0	0.1	1.8
100 %		3.5	6.0	9.5	0.1	1.0



Model	MUW100512	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	-12V0.45A		

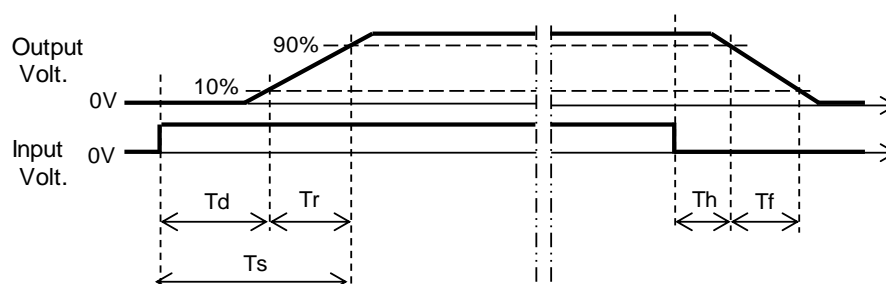
## 1.Graph



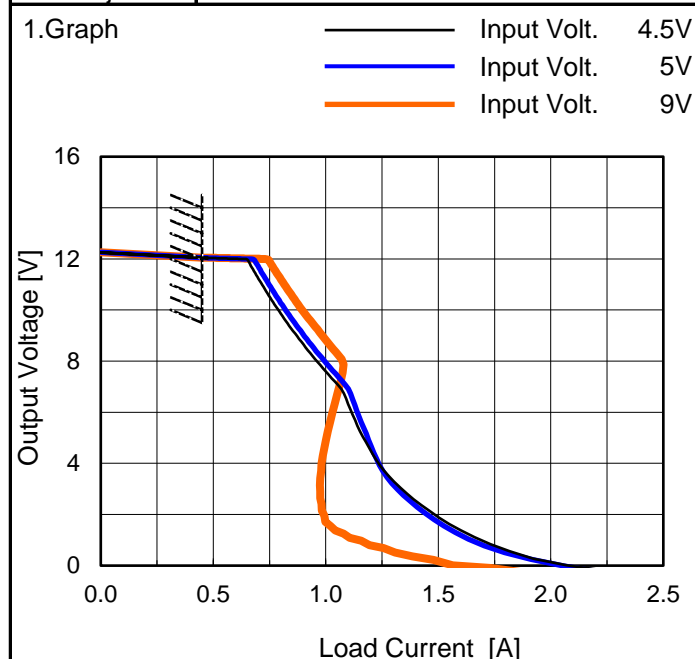
+12V: Load Current is same as -12V

## 2.Values

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	1.2	7.3	8.5	0.1	2.1
100 %	3.6	6.3	9.9	0.1	1.1



Model	MUW100512
Item	Overcurrent Protection
Object	+12V0.45A



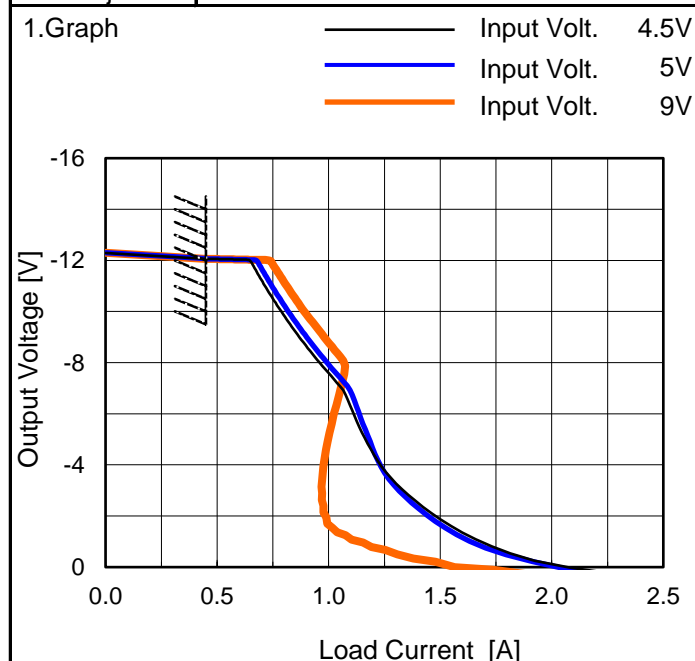
Temperature 25°C  
Testing Circuitry Figure A

### 2.Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
11.4	0.69	0.72	0.79
10.8	0.73	0.77	0.84
9.6	0.82	0.86	0.93
8.4	0.93	0.96	1.04
7.2	1.04	1.09	1.06
6.0	1.12	1.15	1.03
4.8	1.19	1.20	0.99
3.6	1.28	1.27	0.98
2.4	1.42	1.41	0.98
1.2	1.66	1.63	1.11
0.0	2.29	2.06	1.73
--	-	-	-

-12V : Rated Load Current

Object	-12V0.45A
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Note: Slanted line shows the range of the rated load current.

### 2.Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 4.5[V]	Input Volt. 5[V]	Input Volt. 9[V]
-11.4	0.69	0.72	0.78
-10.8	0.73	0.76	0.83
-9.6	0.83	0.86	0.93
-8.4	0.93	0.96	1.04
-7.2	1.05	1.08	1.06
-6.0	1.12	1.14	1.02
-4.8	1.19	1.20	0.99
-3.6	1.28	1.27	0.97
-2.4	1.42	1.40	0.98
-1.2	1.66	1.63	1.10
0.0	2.08	2.05	1.56
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+12V : Rated Load Current

		Testing Circuitry Figure A
Model	MUW100512	
Item	Ambient Temperature Drift	
Object	+12V0.45A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 4.5V	Input Volt. 5V	Input Volt. 9V
-40	11.970	11.973	11.980
25	12.040	12.043	12.049
85	12.058	12.060	12.067

-12V: Load Current is same as +12V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+12V0.45A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	3.1	3.1
25	3.0	3.1
85	3.1	3.2

-12V: Load Current is same as +12V

		Testing Circuitry Figure A
Model	MUW100512	
Item	Ambient Temperature Drift	
Object	-12V0.45A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 4.5V	Input Volt. 5V	Input Volt. 9V
-40	-12.005	-12.004	-12.003
25	-12.074	-12.074	-12.072
85	-12.089	-12.089	-12.088

+12V: Load Current is same as -12V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-12V0.45A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	3.1	3.1
25	3.0	3.1
85	3.1	3.2

+12V: Load Current is same as -12V

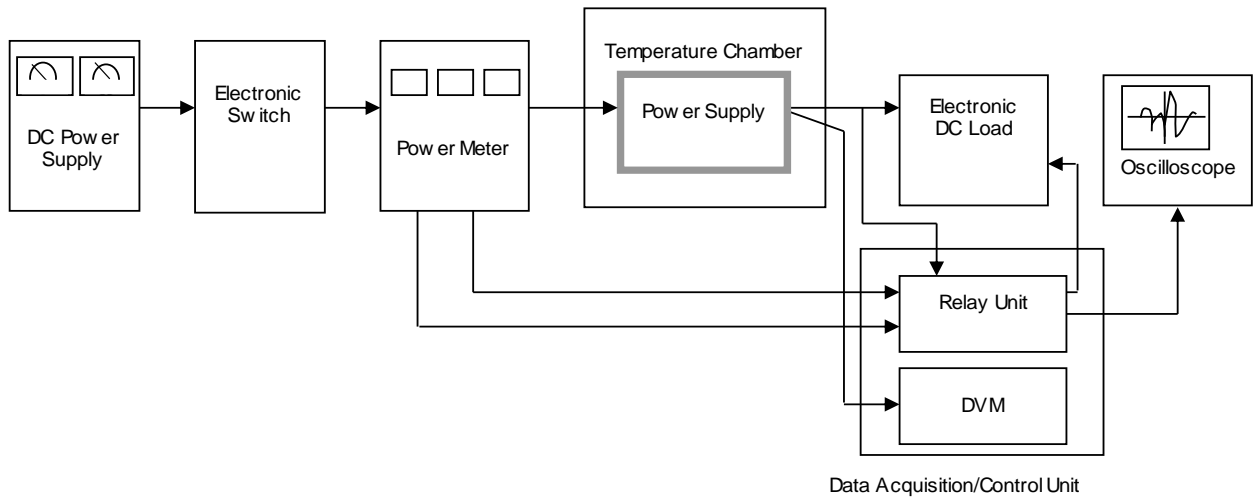


Figure A

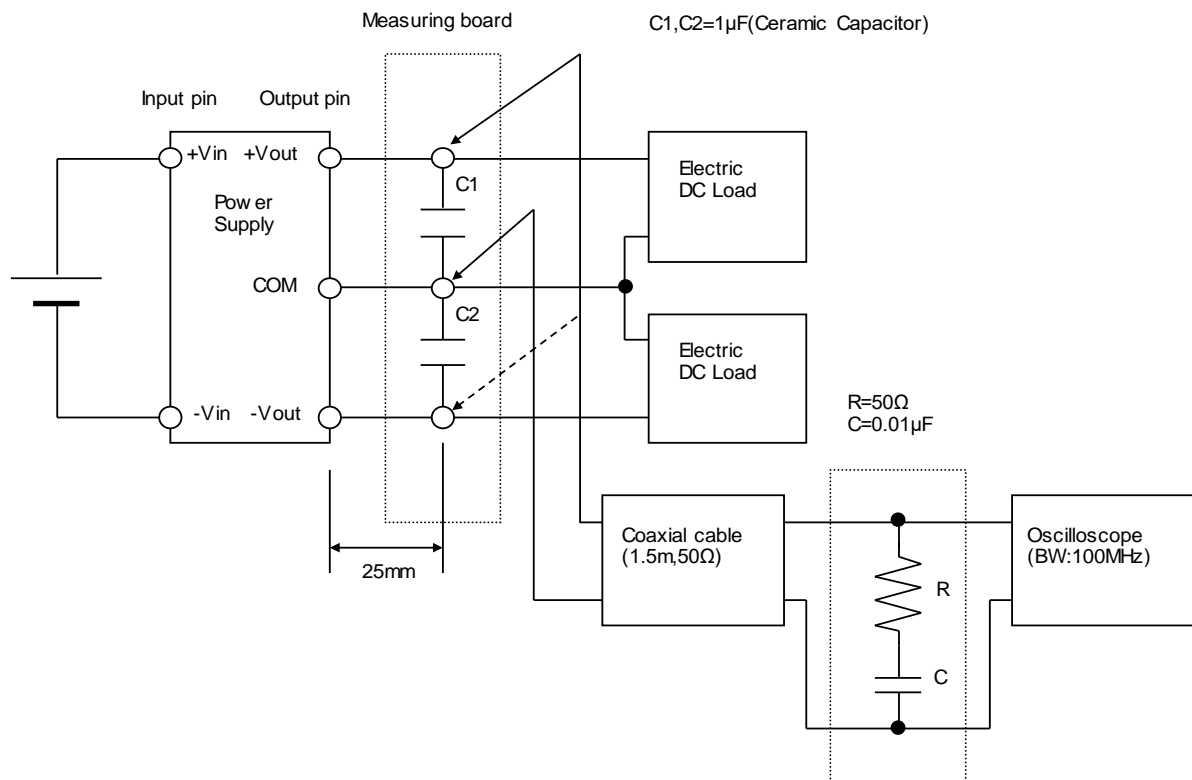


Figure B