

# TEST DATA OF MUW61215

Regulated DC Power Supply  
May.8. 2025

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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

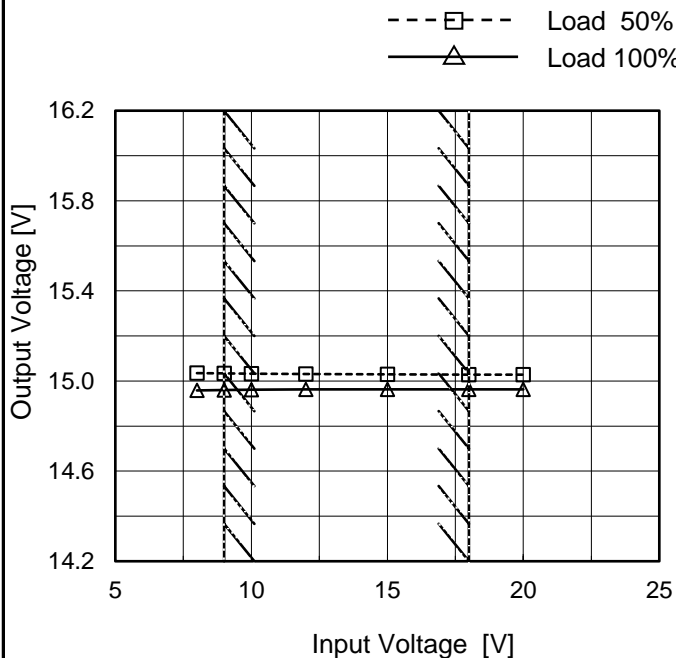
(Final Page 13)



Model		MUW61215	Temperature		25°C																																																			
Item		Efficiency (by Load Current)	Testing Circuitry		Figure A																																																			
Object																																																								
1.Graph		<div><div><div>—△—</div><div>---□---</div><div>---○---</div></div><div><div>Input Volt.</div><div>Input Volt.</div><div>Input Volt.</div></div><div><div>9V</div><div>12V</div><div>18V</div></div></div> <div><div>Efficiency [%]</div><div>100</div><div>90</div><div>80</div><div>70</div><div>60</div></div> <div><div>0</div><div>20</div><div>40</div><div>60</div><div>80</div><div>100</div><div>120</div></div> <div><div>Load Ratio [%]</div></div>	2.Values																																																					
			<table><tr><th rowspan="2">Load Ratio [%]</th><th colspan="3">Efficiency [%]</th></tr><tr><th>Input Volt. 9[V]</th><th>Input Volt. 12[V]</th><th>Input Volt. 18[V]</th></tr><tr><td>0</td><td>-</td><td>-</td><td>-</td></tr><tr><td>20</td><td>79.2</td><td>77.5</td><td>74.3</td></tr><tr><td>40</td><td>85.6</td><td>84.2</td><td>82.9</td></tr><tr><td>60</td><td>87.1</td><td>87.2</td><td>85.6</td></tr><tr><td>80</td><td>87.6</td><td>87.9</td><td>87.3</td></tr><tr><td>100</td><td>87.7</td><td>88.2</td><td>87.8</td></tr><tr><td>110</td><td>87.5</td><td>88.1</td><td>88.0</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 [%]	Efficiency [%]			Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	0	-	-	-	20	79.2	77.5	74.3	40	85.6	84.2	82.9	60	87.1	87.2	85.6	80	87.6	87.9	87.3	100	87.7	88.2	87.8	110	87.5	88.1	88.0	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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Model	MUW61215
Item	Line Regulation
Object	+15V0.2A

## 1.Graph



Temperature 25°C  
Testing Circuitry Figure A

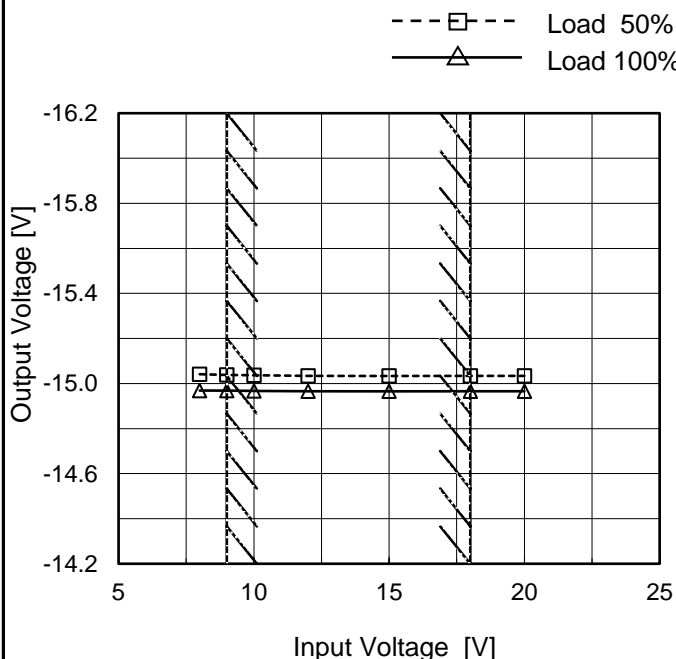
## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
8	15.035	14.958
9	15.034	14.960
10	15.032	14.961
12	15.030	14.962
15	15.029	14.963
18	15.028	14.963
20	15.028	14.963
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-15V: Rated Load Current

Object	-15V0.2A
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## 1.Graph

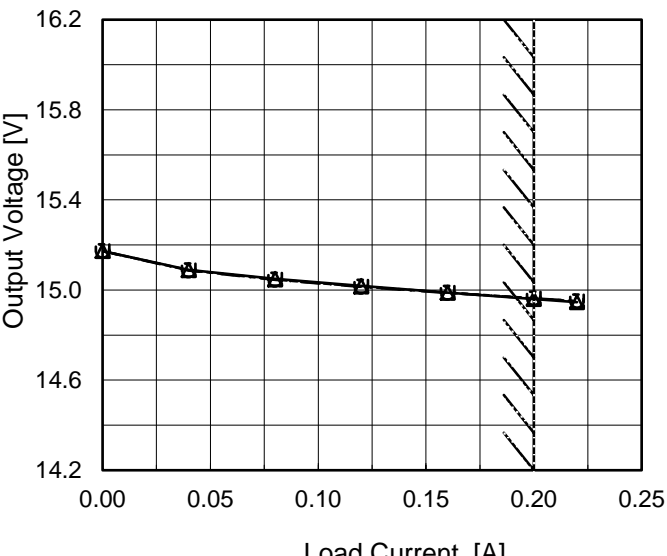
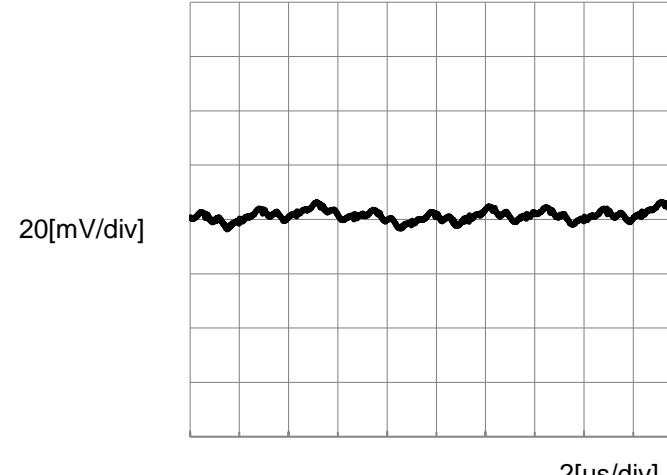


Note: Slanted line shows the range of the rated input voltage.

## 2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
8	-15.041	-14.969
9	-15.039	-14.968
10	-15.037	-14.967
12	-15.034	-14.966
15	-15.033	-14.965
18	-15.034	-14.966
20	-15.034	-14.966
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- 4 -

BC-12141

Model	MUW61215																																																					
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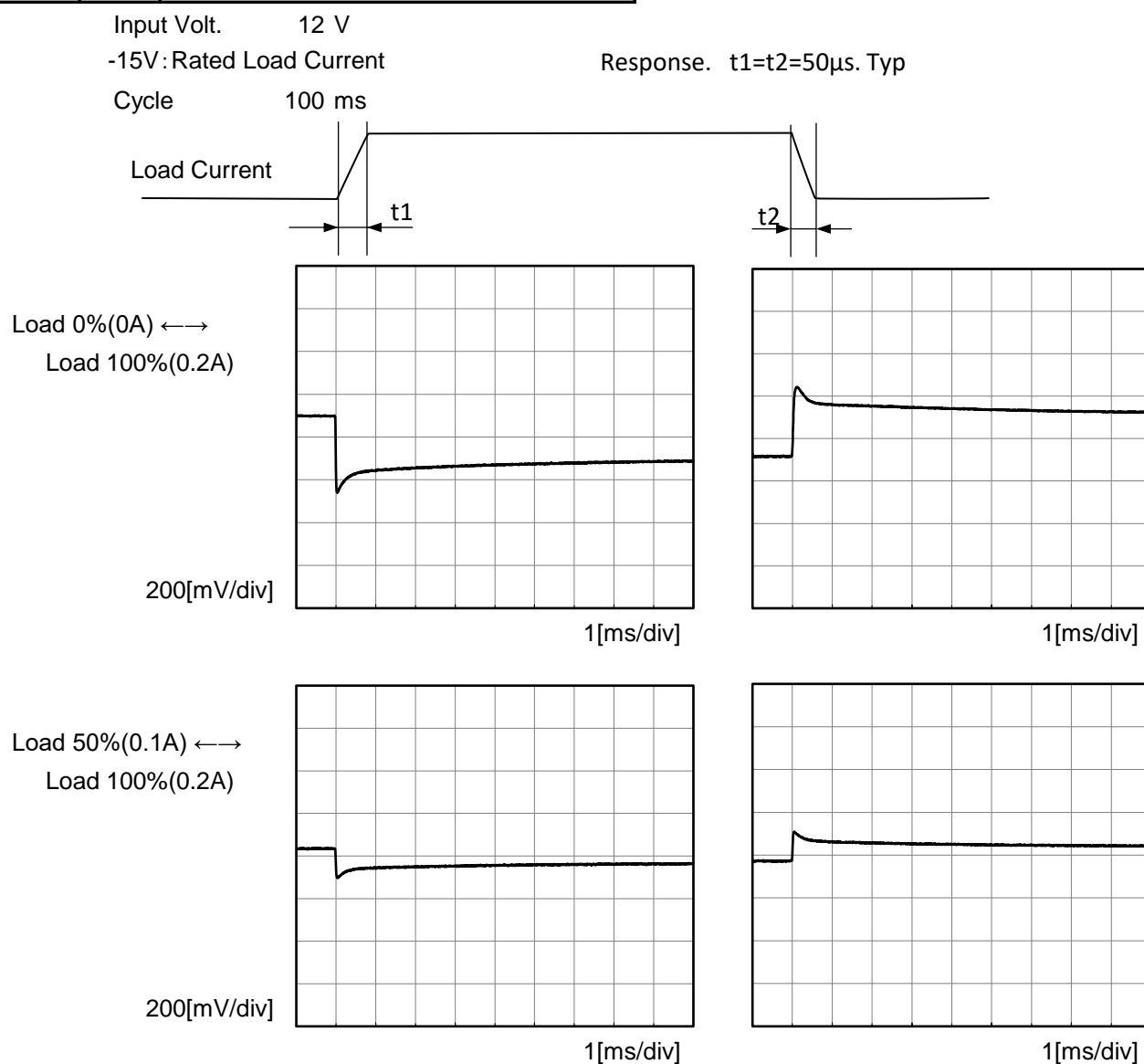
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BC-12141

Model	MUW61215	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+15V0.2A	





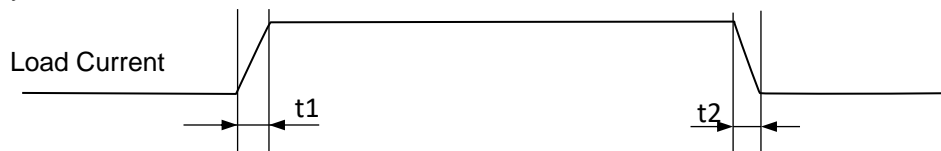
Model	MUW61215	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	-15V0.2A	

Input Volt. 12 V

+15V: Rated Load Current

Response.  $t_1=t_2=50\mu\text{s}$ . Typ

Cycle 100 ms



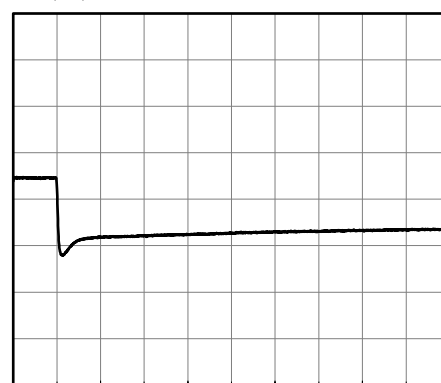
Load 0%(0A)  $\longleftrightarrow$

Load 100%(0.2A)

200[mV/div]



1[ms/div]



1[ms/div]

Load 50%(0.1A)  $\longleftrightarrow$

Load 100%(0.2A)

200[mV/div]



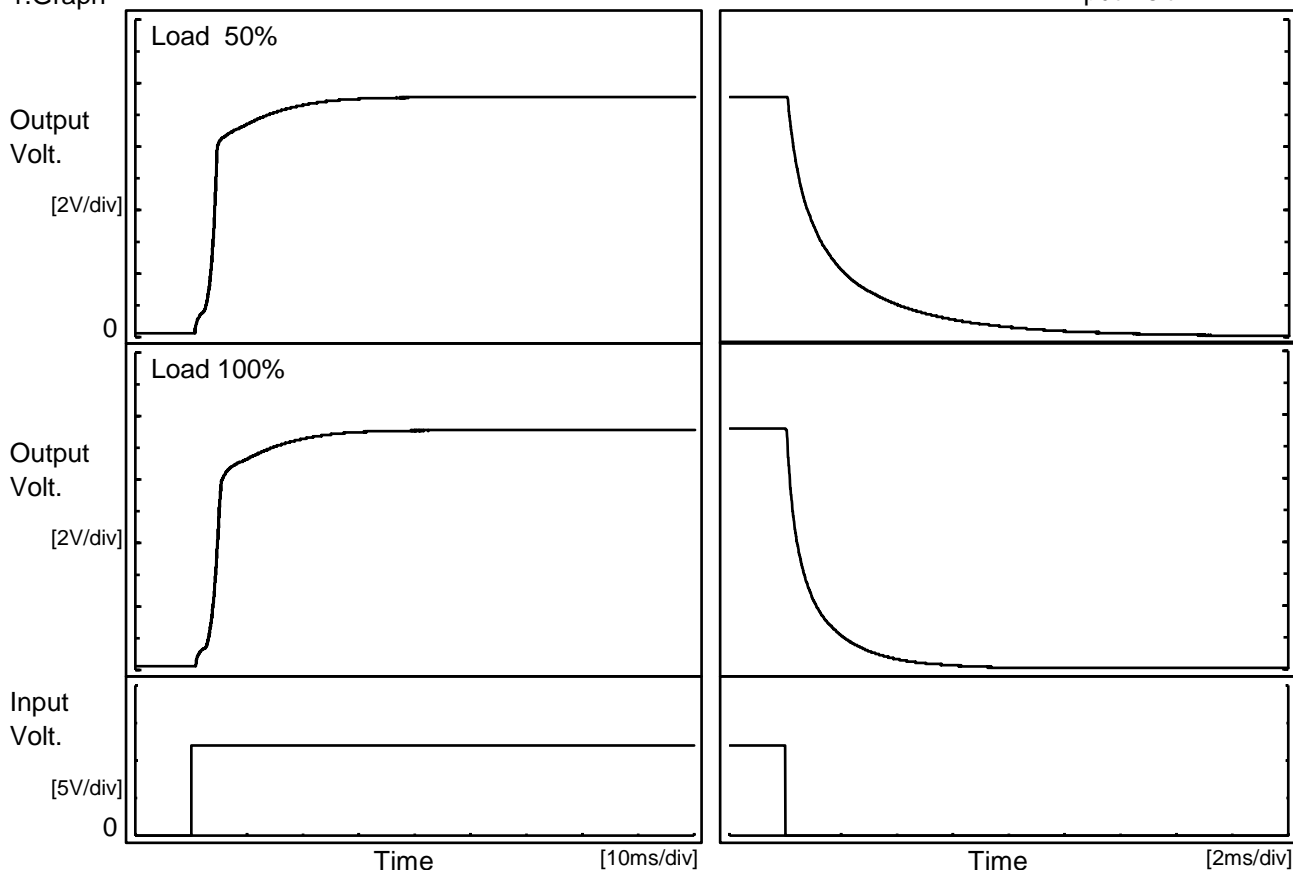
1[ms/div]



1[ms/div]

Model	MUW61215	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+15V0.2A		

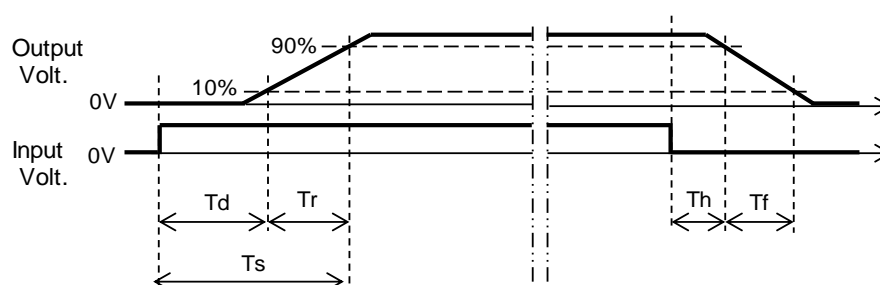
## 1.Graph



-15V: Load Current is same as +15V

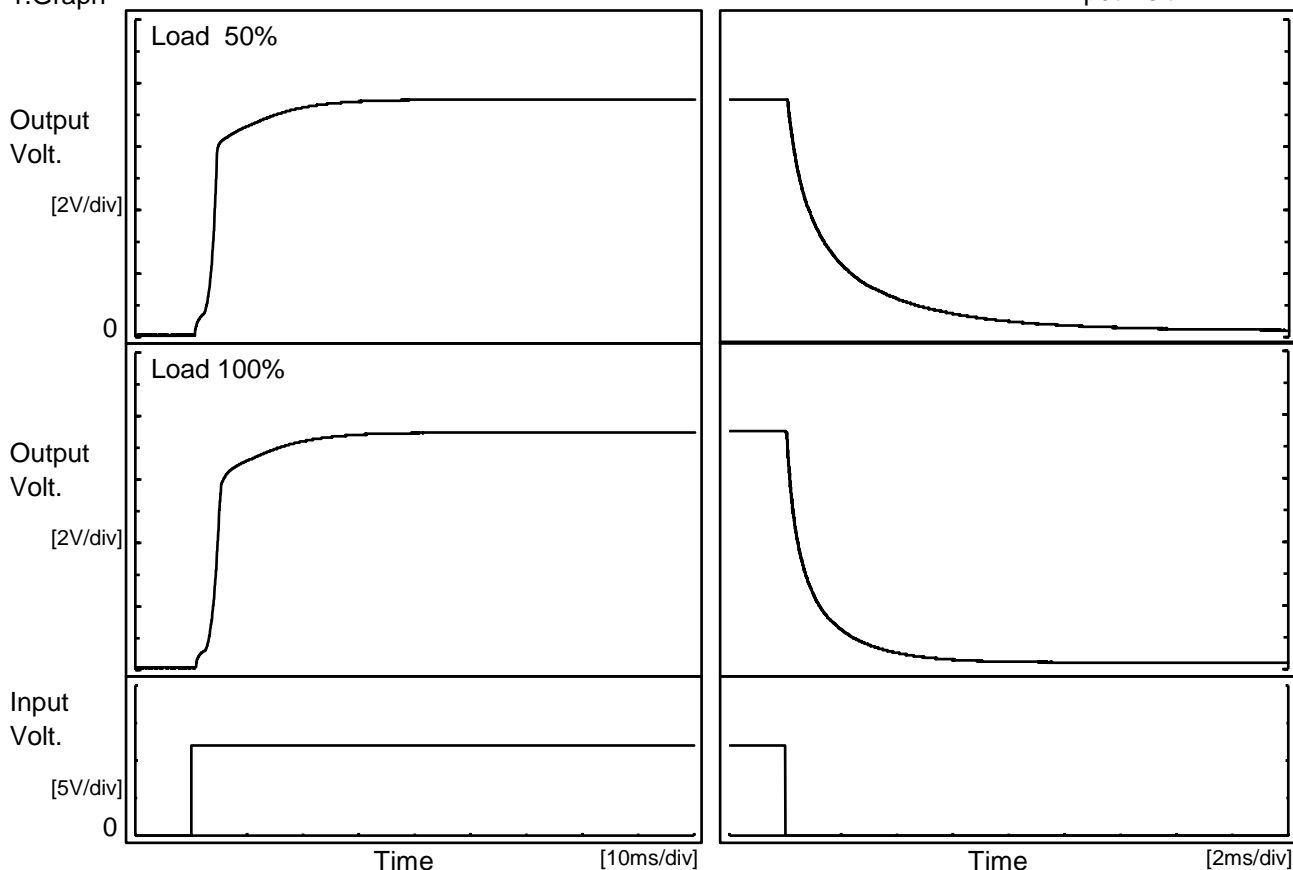
## 2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		2.1	8.7	10.8	0.2	4.7
100 %		2.8	8.7	11.5	0.1	2.4



Model	MUW61215	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	-15V0.2A		

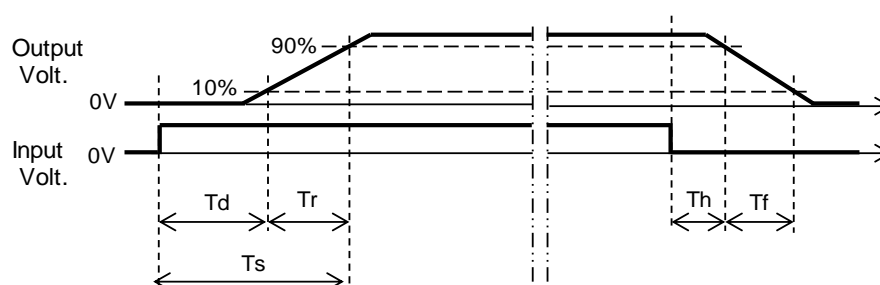
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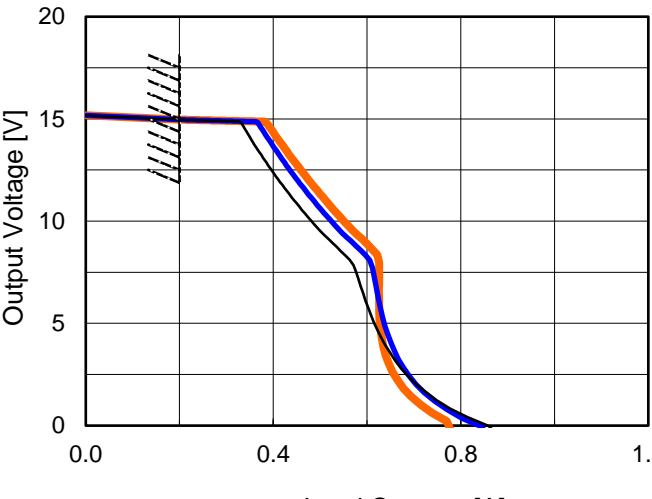
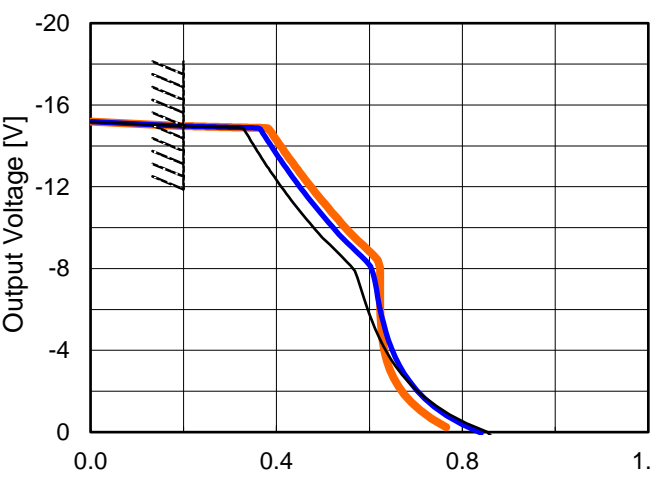


+15V:Load Current is same as -15V

## 2.Values

Load	Time	Td	Tr	Ts	Th	Tf
50 %		2.4	9.5	11.9	0.2	5.6
100 %		2.9	9.5	12.4	0.1	2.9



Model		MUW61215	Temperature		25°C																																																							
Item		Overcurrent Protection	Testing Circuitry		Figure A																																																							
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	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]																																																									
-14.25	0.35	0.38	0.40																																																									
-13.50	0.37	0.40	0.43																																																									
-12.00	0.41	0.45	0.48																																																									
-10.50	0.47	0.51	0.53																																																									
-9.00	0.52	0.57	0.60																																																									
-7.50	0.58	0.61	0.62																																																									
-6.00	0.60	0.63	0.62																																																									
-4.50	0.63	0.64	0.63																																																									
-3.00	0.67	0.67	0.65																																																									
-1.50	0.74	0.74	0.69																																																									
0.00	0.88	0.84	0.78																																																									
--	-	-	-																																																									
Note: Slanted line shows the range of the rated load current.			+15V : Rated Load Current																																																									

- 10 -

BC-12141

		Testing Circuitry Figure A
Model	MUW61215	
Item	Ambient Temperature Drift	
Object	+15V0.2A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V
-40	14.852	14.854	14.856
25	14.959	14.962	14.963
85	14.978	14.979	14.980

-15V: Load Current is same as +15V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+15V0.2A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	7.0	7.0
25	7.1	7.0
85	7.1	7.0

-15V: Load Current is same as +15V

		Testing Circuitry Figure A
Model	MUW61215	
Item	Ambient Temperature Drift	
Object	-15V0.2A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V
-40	-14.860	-14.859	-14.858
25	-14.968	-14.966	-14.965
85	-14.986	-14.985	-14.985

+15V: Load Current is same as -15V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-15V0.2A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	7.0	7.0
25	7.1	7.0
85	7.1	7.0

+15V: Load Current is same as -15V

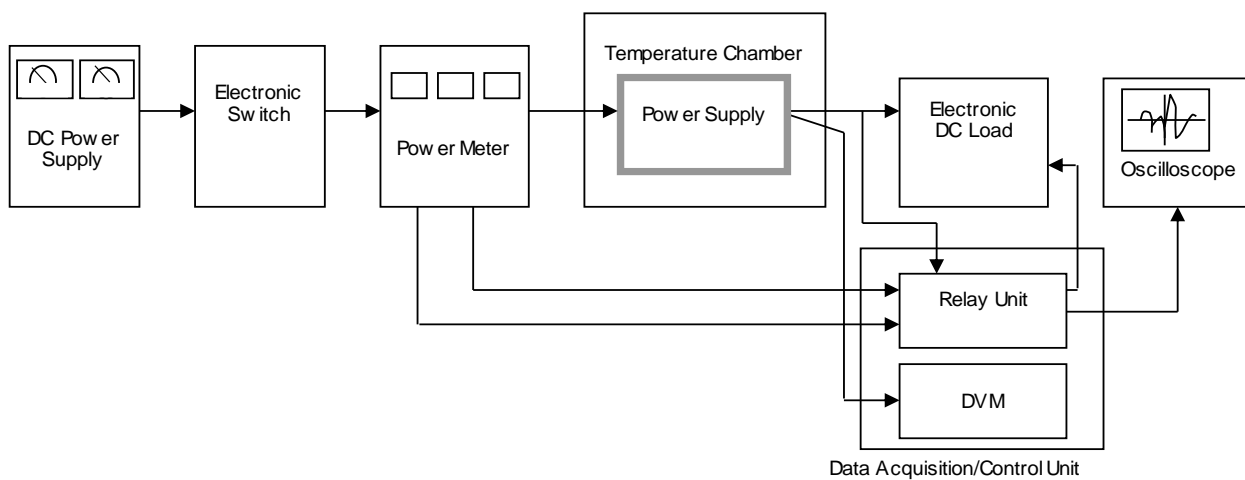


Figure A

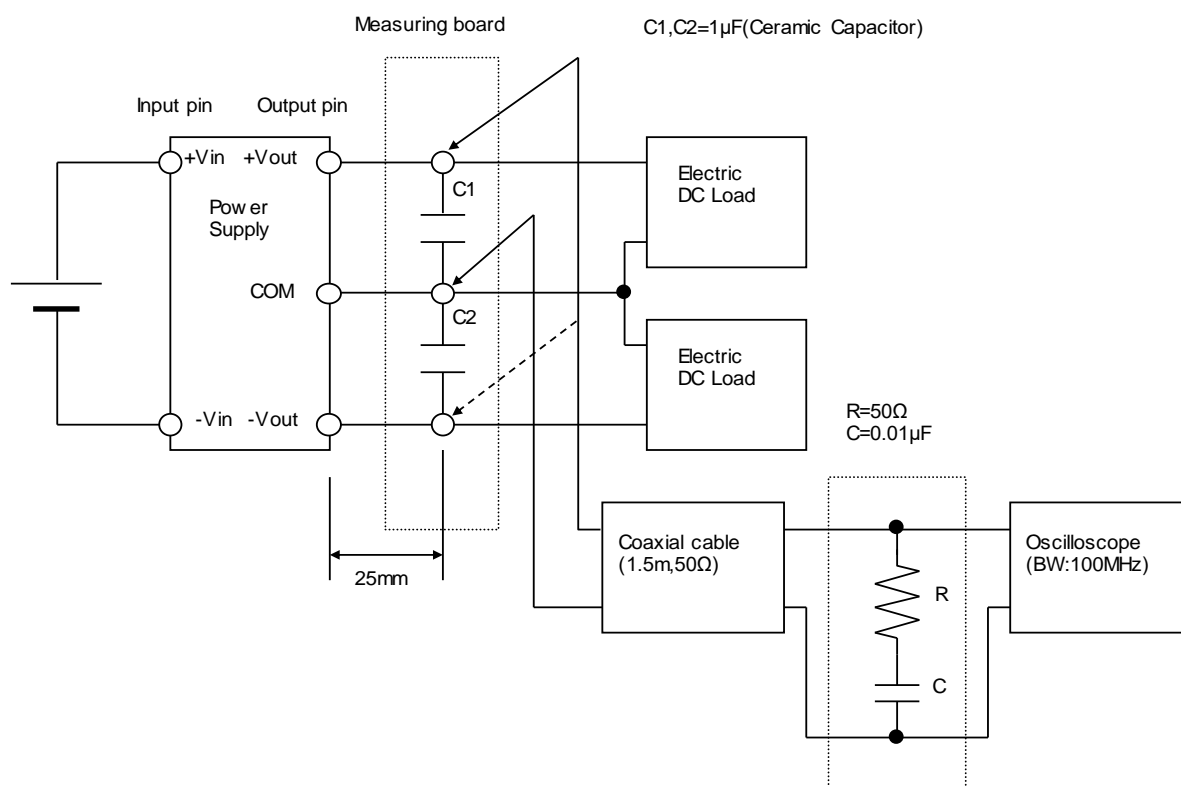


Figure B