For Reference

TEST DATA OF MUW31215

Regulated DC Power Supply
February 6, 2025

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Design Manager

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Design Engineer

COSEL CO.,LTD.

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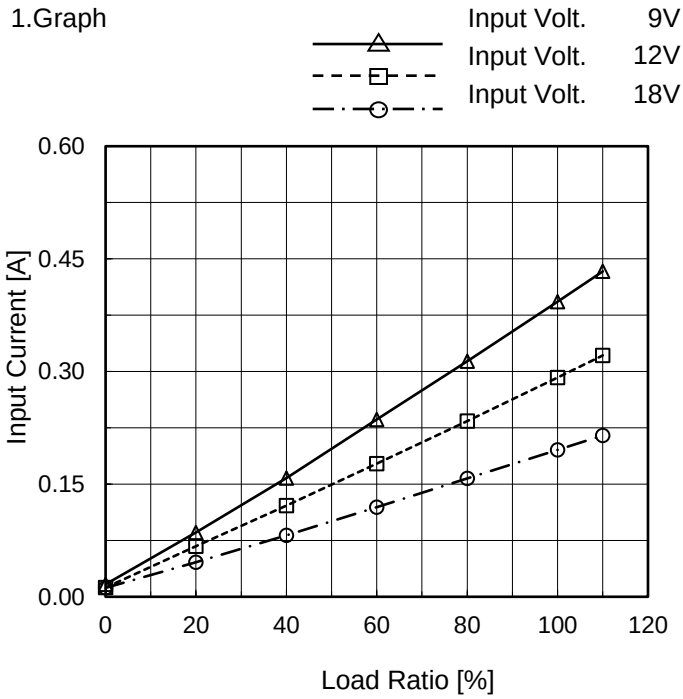
Model	MUW31215
Item	Input Current (by Load Current)
Object	_____

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Load Ratio [%]	Input Current [A]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0	0.017	0.012	0.012
20	0.086	0.067	0.046
40	0.158	0.122	0.082
60	0.236	0.177	0.120
80	0.314	0.234	0.158
100	0.393	0.292	0.196
110	0.433	0.321	0.215
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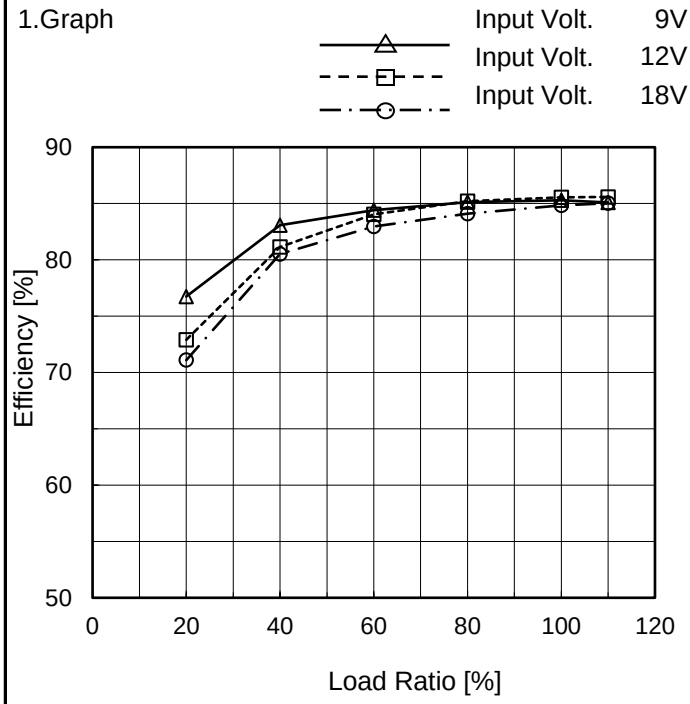
Model	MUW31215
Item	Efficiency (by Load Current)
Object	_____

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Load Ratio [%]	Efficiency [%] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0	-	-	-
20	76.7	72.9	71.1
40	83.1	81.1	80.5
60	84.4	84.0	83.0
80	85.1	85.2	84.1
100	85.3	85.5	84.8
110	85.1	85.6	85.0
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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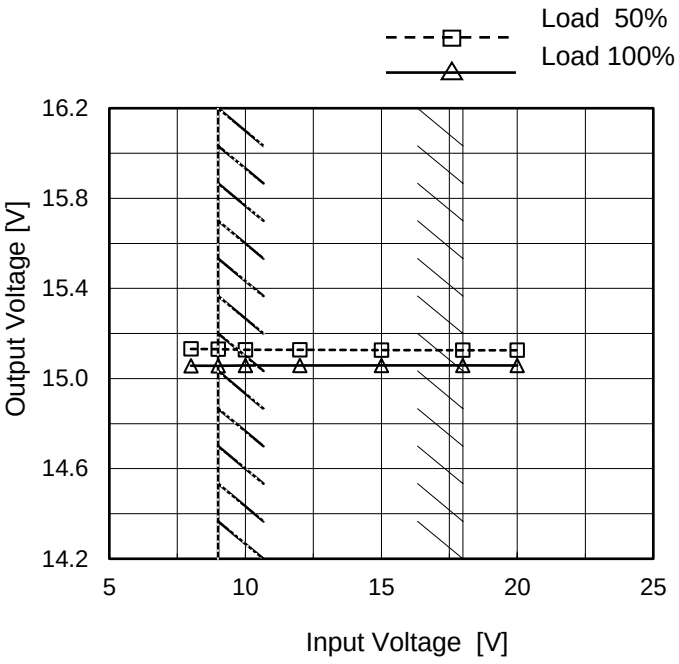
Model	MUW31215
Item	Line Regulation
Object	+15V0.1A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
8	15.131	15.057
9	15.130	15.057
10	15.128	15.058
12	15.127	15.058
15	15.126	15.058
18	15.126	15.058
20	15.126	15.058
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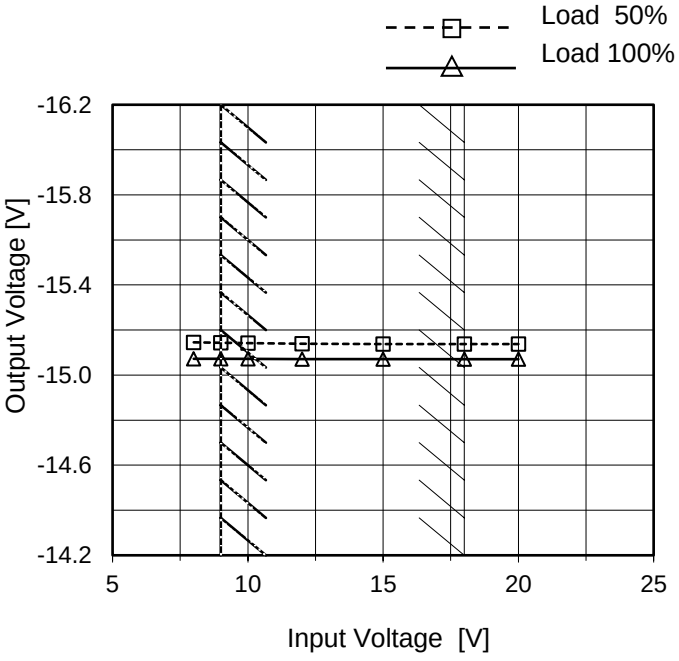
-15V:Rated Load Current

Object	-15V0.1A

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	-15.145	-15.072
9	-15.143	-15.072
10	-15.142	-15.072
12	-15.139	-15.071
15	-15.138	-15.071
18	-15.138	-15.071
20	-15.138	-15.071
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--	-	-

+15V:Rated Load Current

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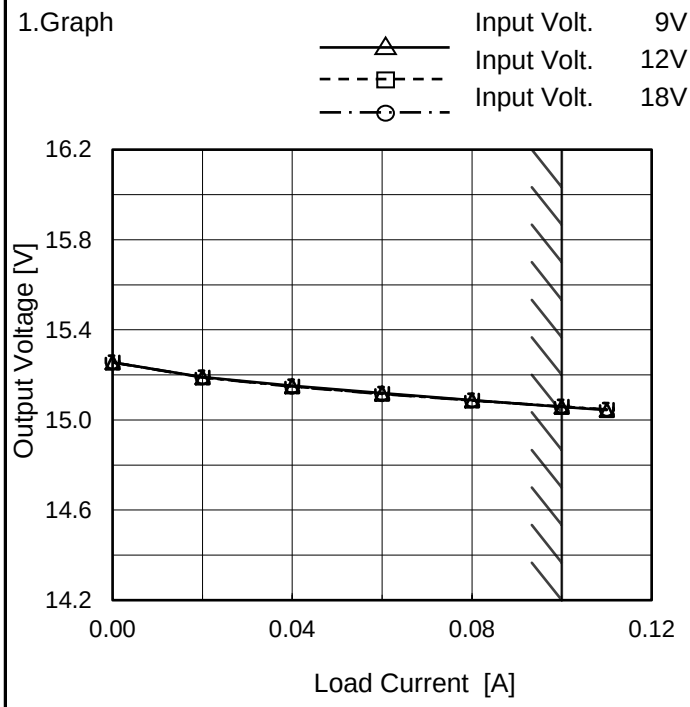
Model	MUW31215
Item	Load Regulation
Object	+15V0.1A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0.00	15.256	15.256	15.255
0.02	15.190	15.189	15.188
0.04	15.152	15.148	15.148
0.06	15.119	15.116	15.115
0.08	15.088	15.087	15.086
0.10	15.059	15.059	15.060
0.11	15.044	15.046	15.047
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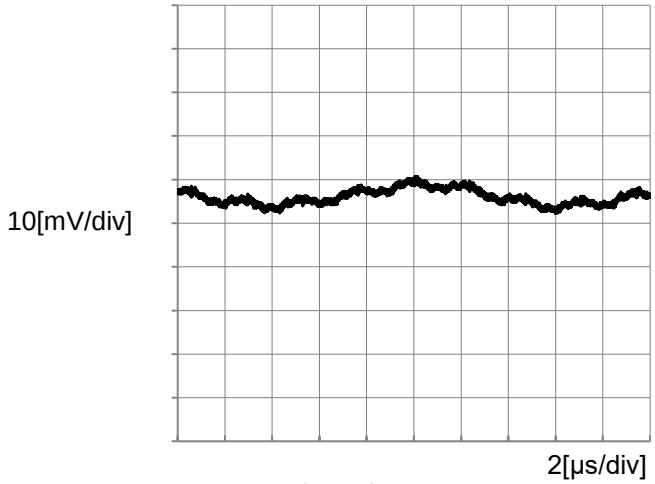
-15V:Rated Load Current

Item	Ripple-Noise
Object	+15V0.1A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 12V
Load 100%



-15V:Rated Load Current

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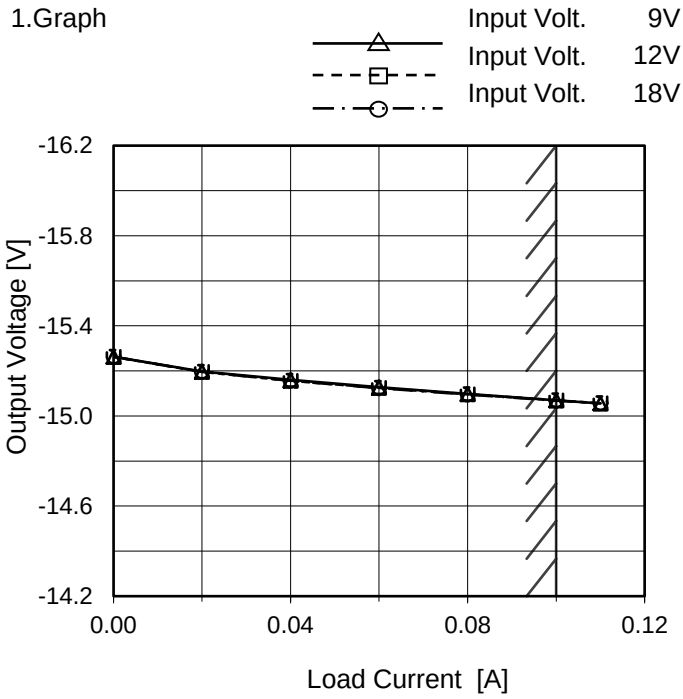
Model	MUW31215
Item	Load Regulation
Object	-15V0.1A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0.00	-15.263	-15.263	-15.263
0.02	-15.197	-15.195	-15.195
0.04	-15.160	-15.156	-15.156
0.06	-15.128	-15.125	-15.123
0.08	-15.099	-15.096	-15.095
0.10	-15.070	-15.069	-15.069
0.11	-15.056	-15.056	-15.056
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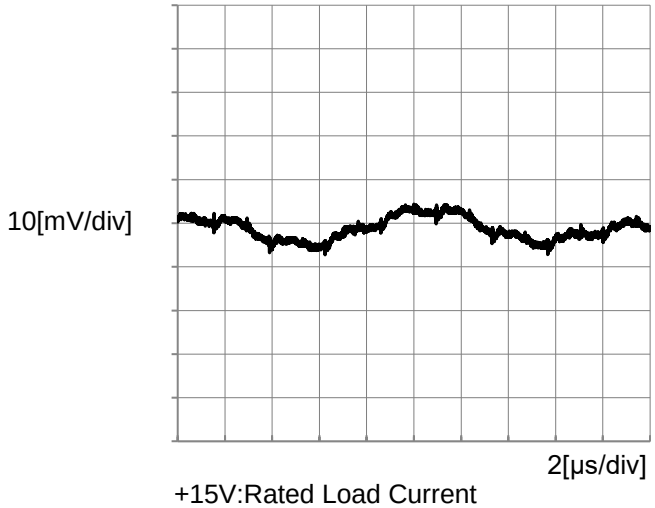
+15V:Rated Load Current

Item	Ripple-Noise
Object	-15V0.1A

Temperature 25°C
Testing Circuitry Figure B

1.Graph

Input Voltage 12V
Load 100%



+15V:Rated Load Current

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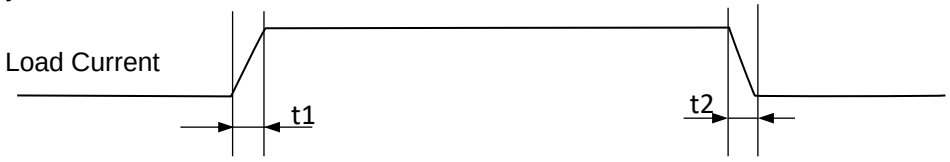
Model	MUW31215	
Item	Dynamic Load Response	Temperature 25°C Testing Circuitry Figure A
Object	+15V0.1A	

Input Volt. 12 V

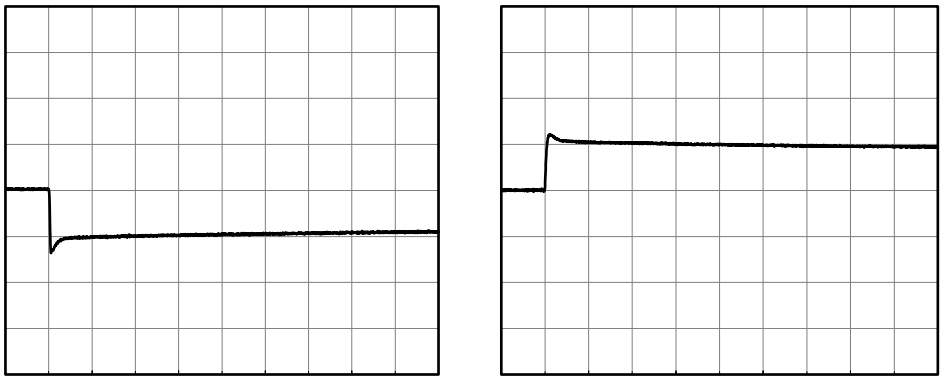
-15V:Rated Load Current

Response. t1=t2=50μs. Typ

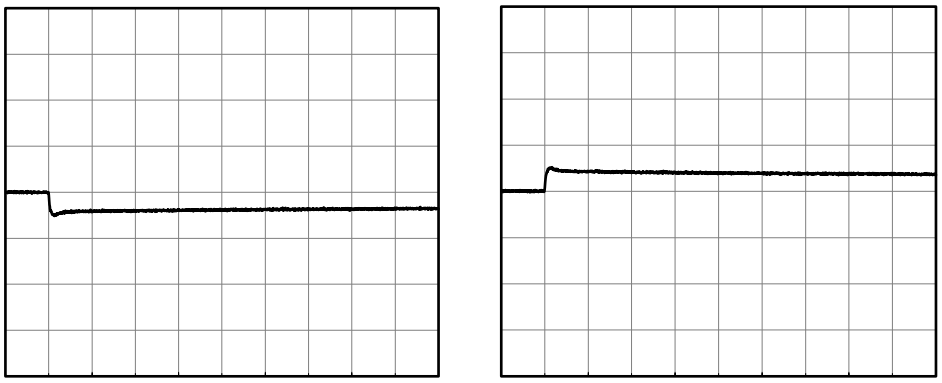
Cycle 1000 ms



Load 0%(0A) ←→
Load 100%(0.1A)



Load 50%(0.05A) ←→
Load 100%(0.1A)



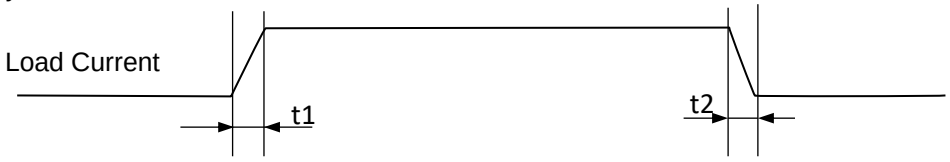
Model	MUW31215	
Item	Dynamic Load Response	Temperature 25°C Testing Circuitry Figure A
Object	-15V0.1A	

Input Volt. 12 V

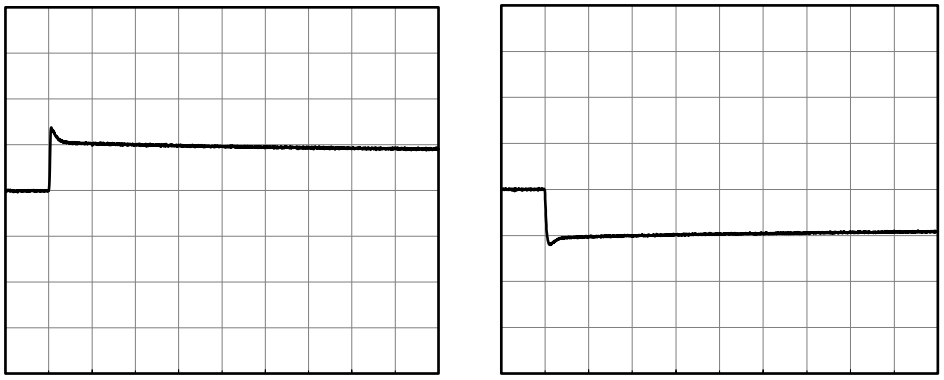
+15V:Rated Load Current

Response. t1=t2=50μs. Typ

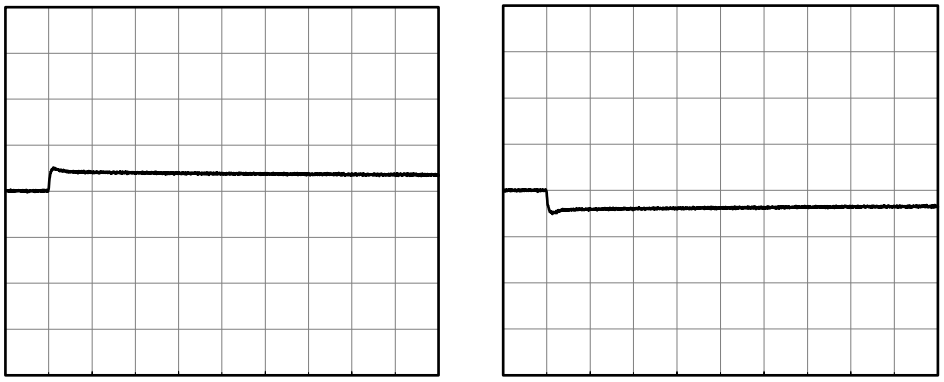
Cycle 1000 ms



Load 0%(0A) ←→
Load 100%(0.1A)



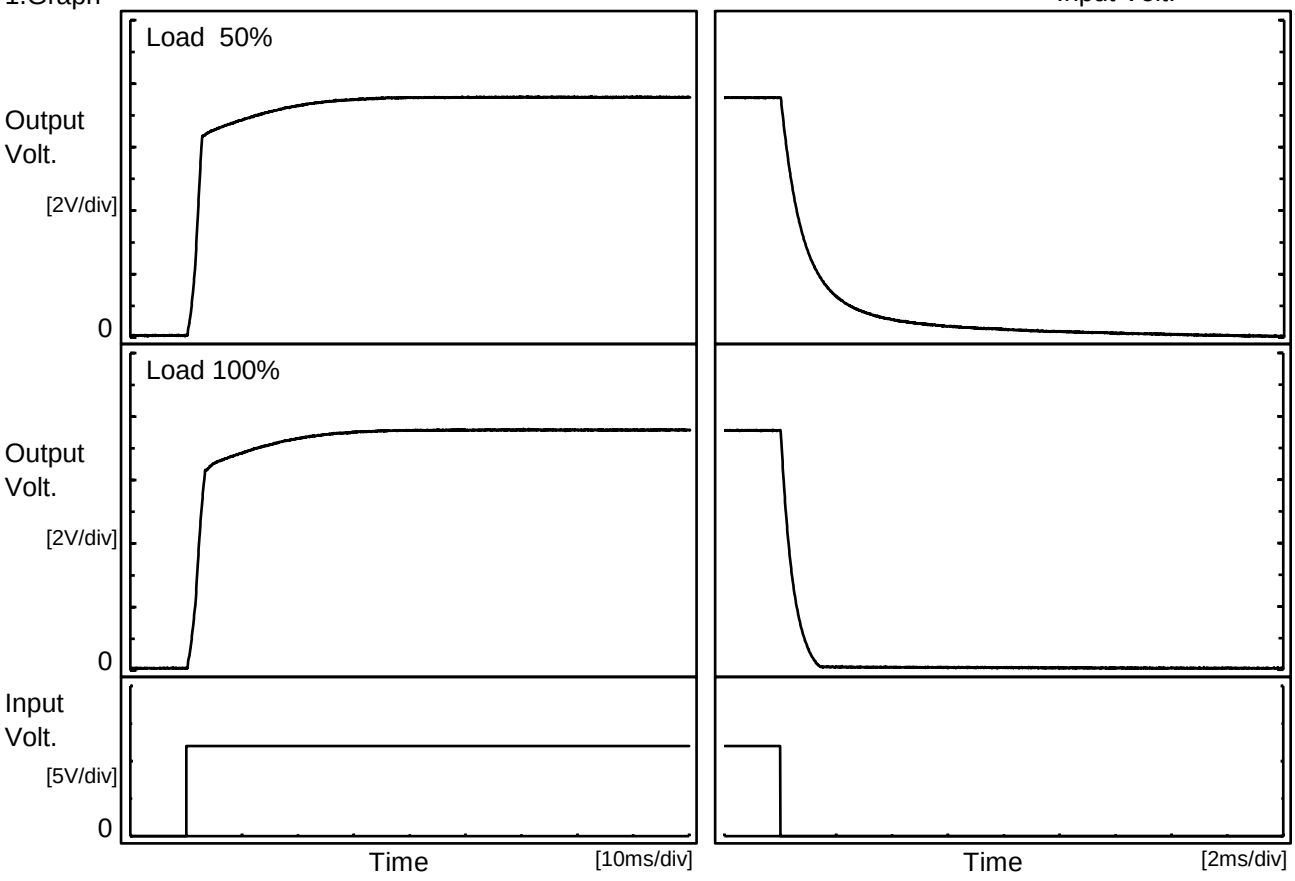
Load 50%(0.05A) ←→
Load 100%(0.1A)



Model	MUW31215	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	+15V0.1A	

1.Graph

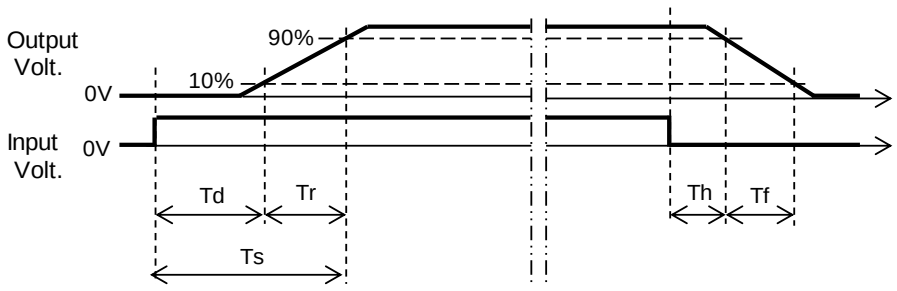
Input Volt. 12 V



2.Values

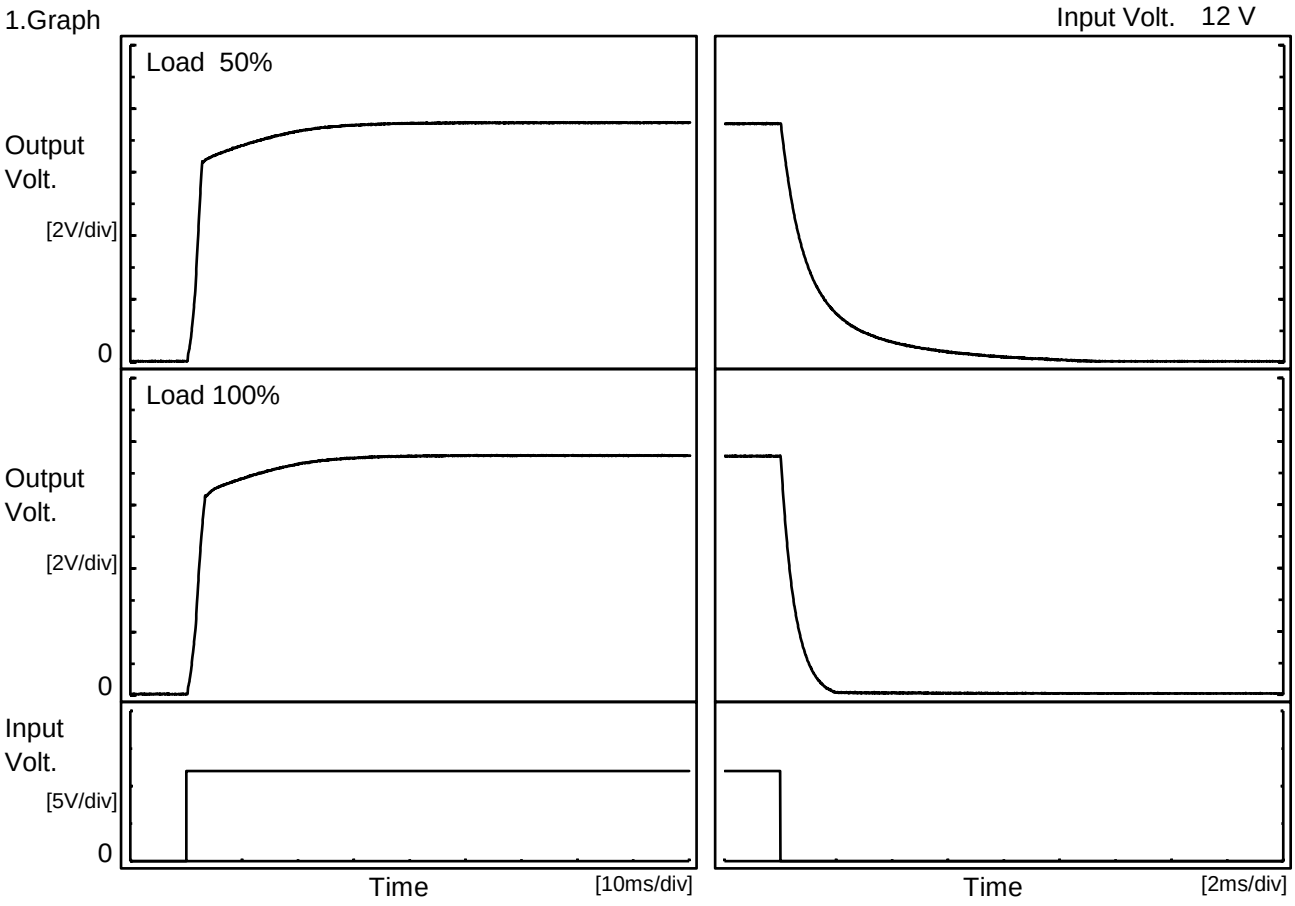
[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.9	7.9	8.8	0.1	2.9
100 %	0.8	8.1	8.9	0.1	0.9



Model	MUW31215	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	-15V0.1A	

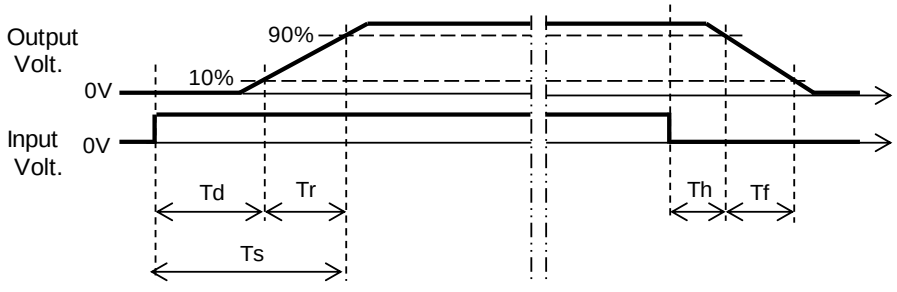
1.Graph



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.9	8.2	9.1	0.1	3.4
100 %	0.9	8.4	9.3	0.1	1.1



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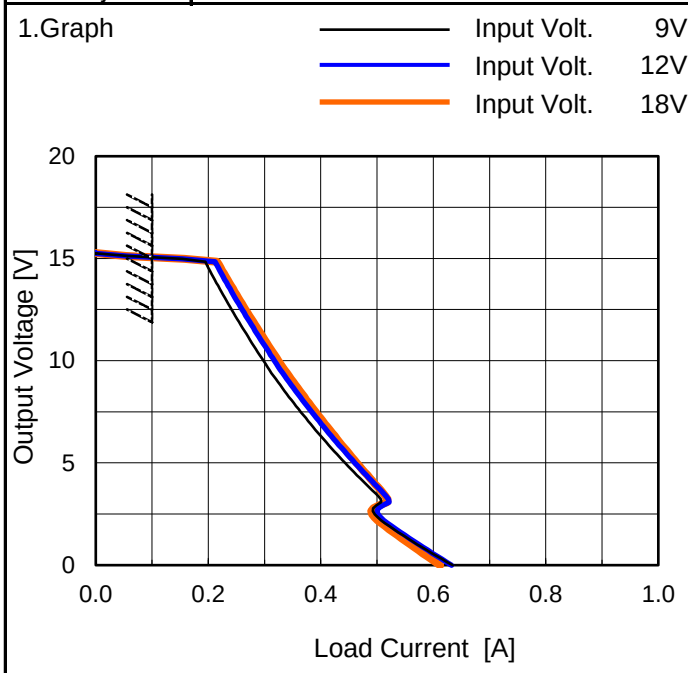
Model	MUW31215
Item	Overcurrent Protection
Object	+15V0.1A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Output Voltage [V]	Load Current [A] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
14.25	0.21	0.22	0.23
13.50	0.22	0.24	0.24
12.00	0.25	0.27	0.28
10.50	0.28	0.30	0.31
9.00	0.32	0.34	0.35
7.50	0.36	0.38	0.39
6.00	0.41	0.43	0.43
4.50	0.46	0.48	0.48
3.00	0.51	0.52	0.52
1.50	0.54	0.54	0.53
0.00	0.63	0.63	0.61
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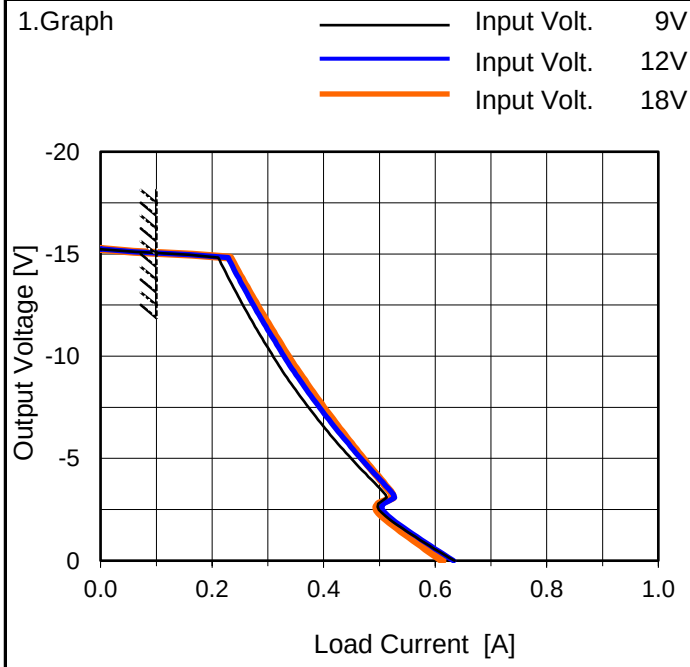
-15V:Rated Load Current

Object	-15V0.1A

1.Graph



Note: Slanted line shows the range of the rated load current.

2.Values

Output Voltage [V]	Load Current [A] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
-14.25	0.22	0.24	0.24
-13.50	0.24	0.25	0.26
-12.00	0.26	0.28	0.29
-10.50	0.30	0.32	0.32
-9.00	0.33	0.35	0.36
-7.50	0.37	0.39	0.40
-6.00	0.42	0.44	0.44
-4.50	0.46	0.48	0.48
-3.00	0.51	0.53	0.52
-1.50	0.54	0.54	0.53
0.00	0.63	0.63	0.61
--	-	-	-

+15V:Rated Load Current

Model	MUW31215	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	+15V0.1A	

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V
-40	14.954	14.956	14.957
25	15.060	15.061	15.061
85	15.080	15.080	15.081

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+15V0.1A	

1.Values

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

Model	MUW31215	
Item	Ambient Temperature Drift	Testing Circuitry Figure A
Object	-15V0.1A	

1.Values

Load 100%

Ambient Temperature[℃]	Output Voltage [V]		
	Input Volt. 9V	Input Volt. 12V	Input Volt. 18V
-40	-14.963	-14.964	-14.965
25	-15.070	-15.070	-15.070
85	-15.090	-15.090	-15.089

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-15V0.1A	

1.Values

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

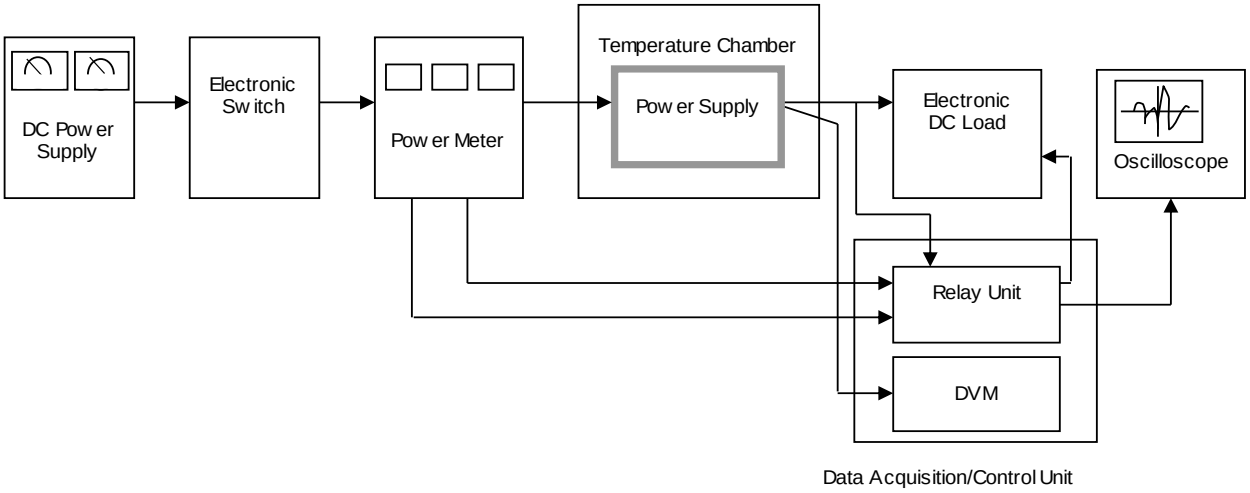


Figure A

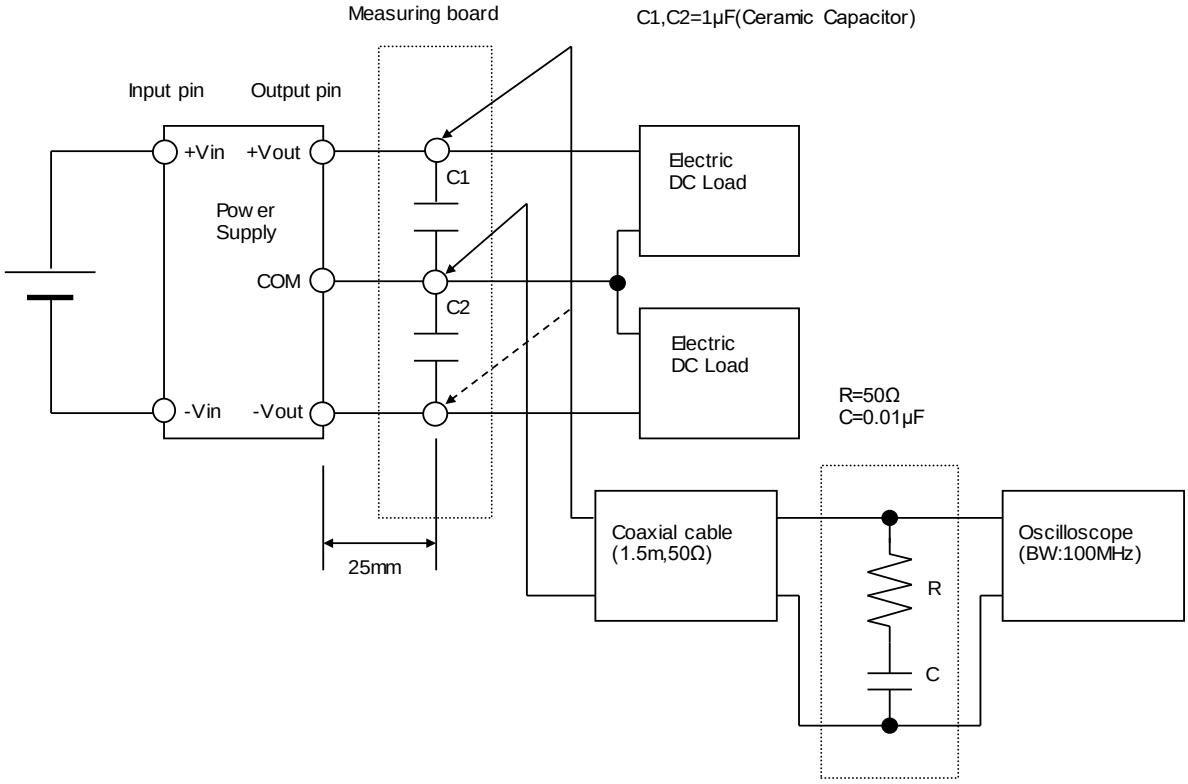


Figure B