



TEST DATA OF SUCS31215

Regulated DC Power Supply
Mar 10, 2005

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Hayato Nakatsubo Design Engineer

COSEL CO.,LTD.

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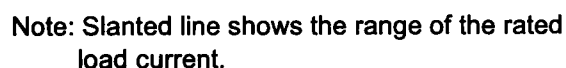
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Model		SUCS31215																																																				
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Temperature 25°C
Testing Circuitry Figure A



Load Current [A]	Input Power [W]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0.00	0.33	0.38	0.49
0.04	1.03	1.07	1.19
0.08	1.73	1.77	1.88
0.12	2.45	2.46	2.57
0.16	3.18	3.17	3.26
0.20	3.92	3.88	3.95
0.22	4.31	4.25	4.30
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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Model		SUCS31215	
Item		Efficiency (by Input Voltage)	
Object			

1.Graph

□

Load 50%

△

Load 100%

86

78

70

62

54

46

38

30

4

8

12

16

20

24

Efficiency [%]

Input Voltage [V]

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

2.Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
8	72.3	76.0
9	72.1	76.6
10	72.0	77.1
12	71.3	77.4
15	69.6	77.0
18	67.7	76.0
20	66.0	75.0
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--	-	-

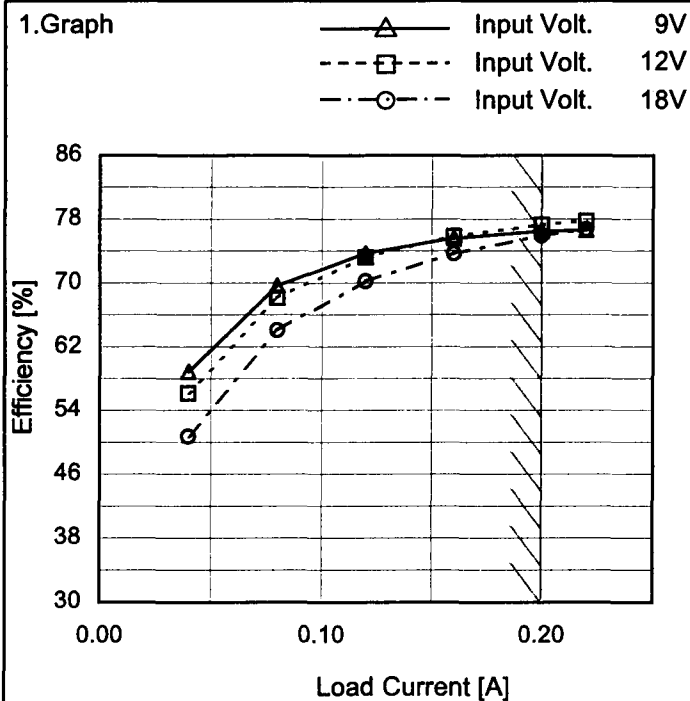
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BC-3774

Model		SUCS31215
Item		Efficiency (by Load Current)
Object	_____	

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]	Efficiency [%]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
0.00	-	-	-
0.04	58.9	56.2	50.8
0.08	69.7	68.1	64.1
0.12	73.7	73.3	70.2
0.16	75.6	75.9	73.7
0.20	76.5	77.3	76.0
0.22	76.6	77.8	76.7
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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Model	SUCS31215	Temperature 25°C Testing Circuitry Figure A																																	
Item	Line Regulation																																		
Object	+15V0.2A																																		
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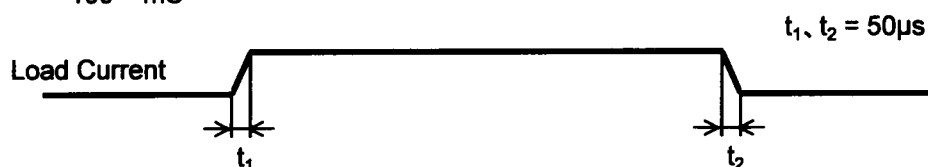
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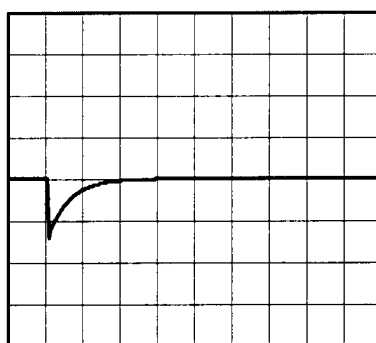
Model	SUCS31215	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+15V0.2A		

Input Volt. 12 V
Cycle 100 mS

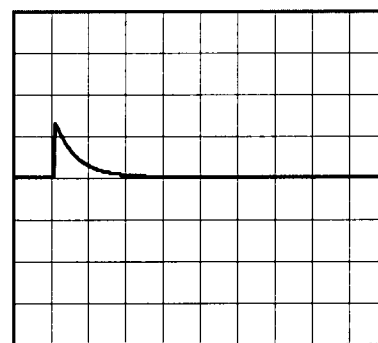


Min. Load (0A) \longleftrightarrow
Load 100% (0.2A)

200mV/div



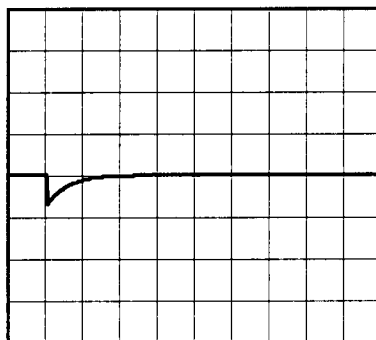
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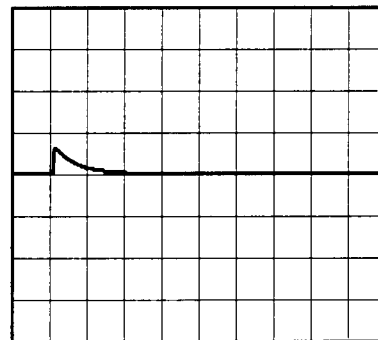
2ms/div

Min. Load (0A) \longleftrightarrow
Load 50% (0.1A)

200mV/div



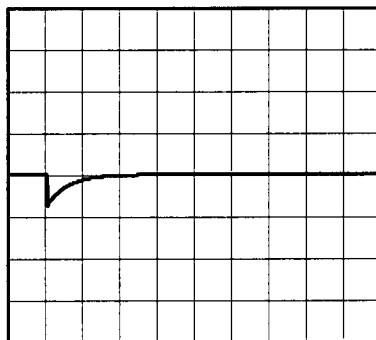
2ms/div



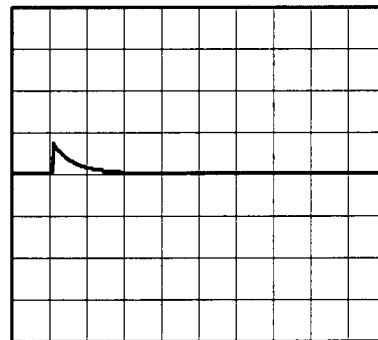
2ms/div

Load 50% (0.1A) \longleftrightarrow
Load 100% (0.2A)

200mV/div



2ms/div



2ms/div

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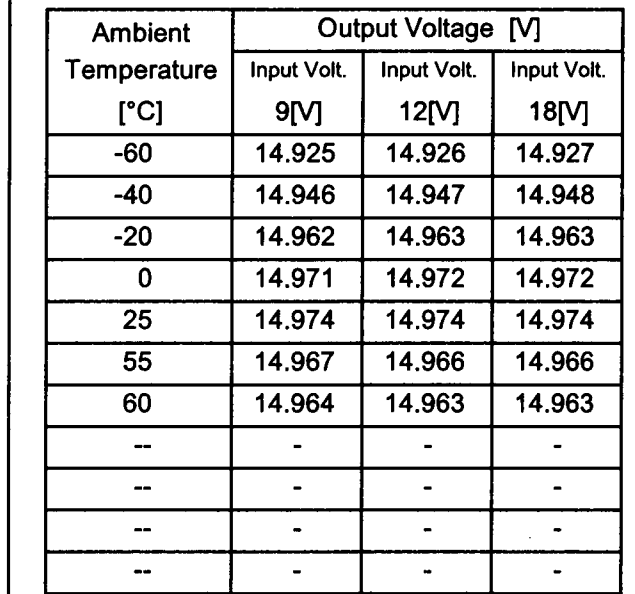
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Load Current [A]	Ripple-Noise [mV]																																								
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Testing Circuitry Figure A

2.Values

[illegible]



		Testing Circuitry Figure A
Model	SUCS31215	
Item	Output Voltage Accuracy	
Object	+15V0.2A	

1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -40 - 55°C

Input Voltage : 9 - 18V

Load Current : 0 - 0.2A

* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* Output Voltage Accuracy (Ration) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	25	9	0	14.977	±16	±0.1
Minimum Voltage	-40	9	0.2	14.946		

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Model	SUCS31215		
Item	Time Lapse Drift	Temperature	25°C
Object	+15V0.2A	Testing Circuitry	Figure A
1.Graph		2.Values	
<div><div><div>Output Voltage [V]</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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COSEL

Model SUCS31215

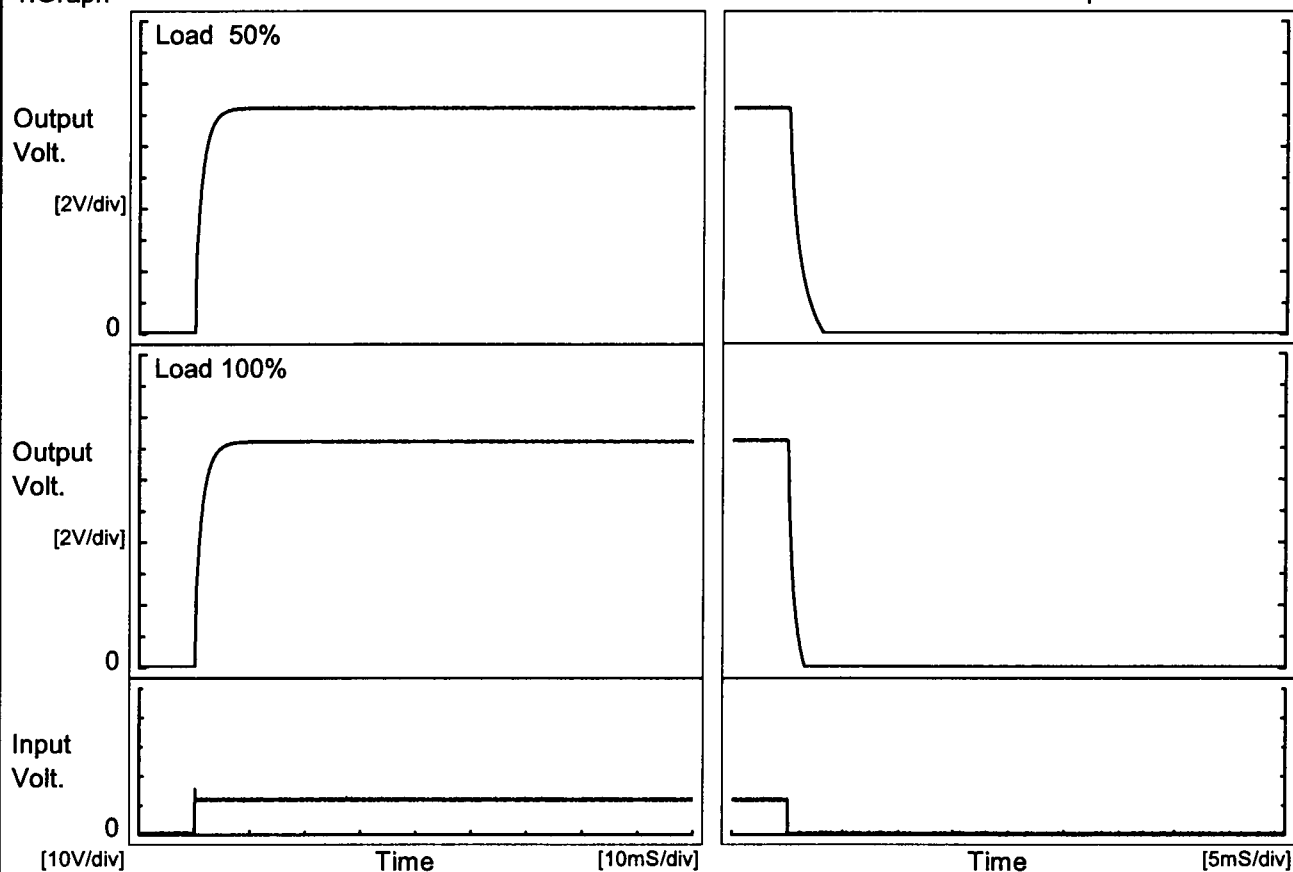
Item Rise and Fall Time

Object +15V0.2A

Temperature 25°C
Testing Circuitry Figure A

1. Graph

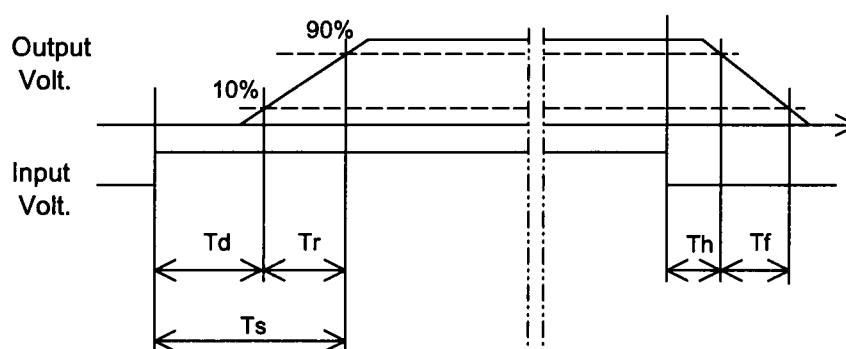
Input Volt. 12 V



2. Values

[mS]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.1	3.5	3.6	0.1	2.1
100 %	0.1	3.6	3.7	0.1	1.0



Model

SUCS31215

Item

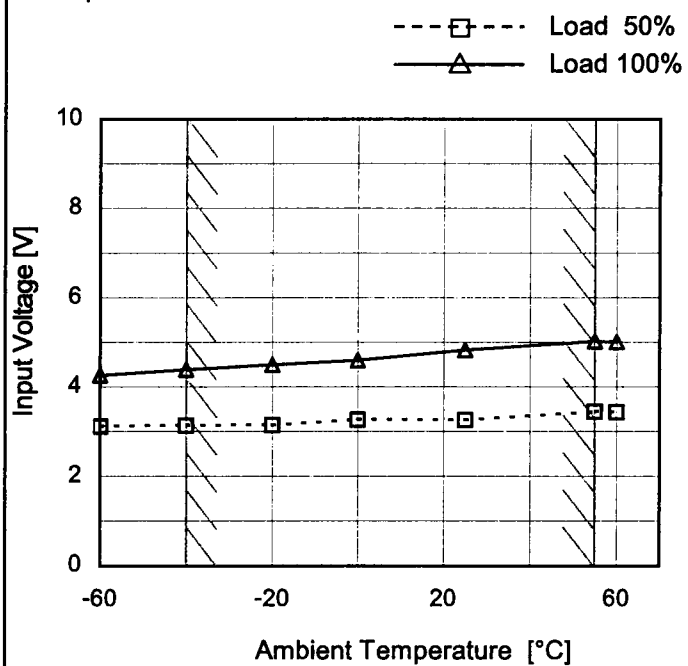
Minimum Input Voltage
for Regulated Output Voltage

Object

+15V0.2A

Testing Circuitry Figure A

1. Graph



Note: Slanted line shows the range of the rated ambient temperature.

2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	3.2	4.3
-40	3.2	4.4
-20	3.2	4.5
0	3.3	4.6
25	3.3	4.9
55	3.5	5.1
60	3.5	5.1
--	-	-
--	-	-
--	-	-
--	-	-

LOREL

Model	SUCS31215
Item	Overcurrent Protection
Object	+15V0.2A

1.Graph

Input Volt. 9V

Input Volt. 12V

Input Volt. 18V

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

Temperature	25°C
Testing Circuitry	Figure A

2.Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]
15.0	0.20	0.20	0.20
14.3	0.41	0.44	0.44
13.5	0.43	0.45	0.45
12.0	0.45	0.47	0.47
10.5	0.48	0.49	0.48
9.0	0.52	0.52	0.50
7.5	0.55	0.54	0.51
6.0	0.58	0.55	0.51
4.5	0.60	0.56	0.51
3.0	0.60	0.54	0.49
1.5	0.55	0.48	0.44
0.0	0.43	0.37	0.35

- 17 -

BC-3774

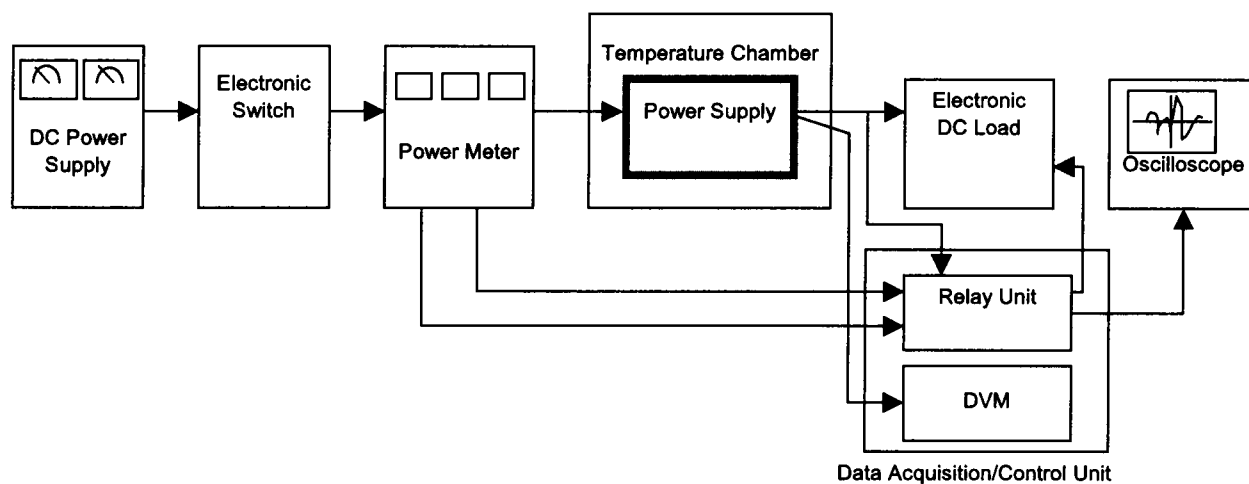


Figure A

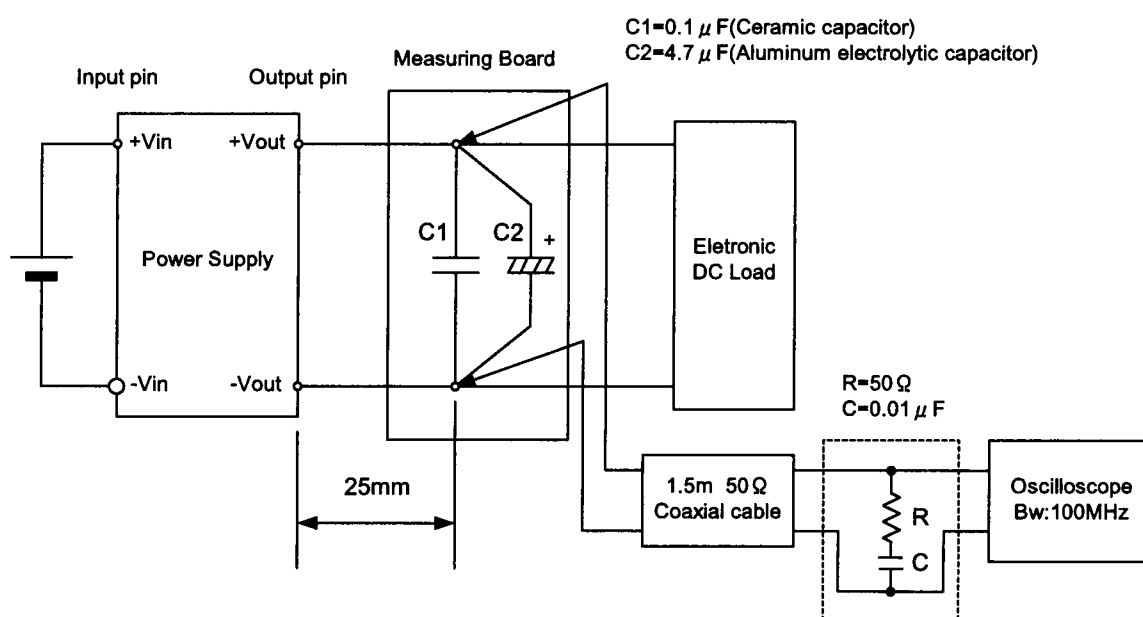


Figure B (Ripple and Ripple noise Characteristic)