



TEST DATA OF SUS102405 SUCS102405

Regulated DC Power Supply
Mar 28, 2005

Approved by : Tetsuo Sugimori
Tetsuo Sugimori Design Manager

Prepared by : Yoshimichi Hirokawa
Yoshimichi Hirokawa Design Engineer

COSEL CO.,LTD.

CONTENTS

1.Input Current (by Input Voltage)	1
2.Input Current (by Load Current)	2
3.Input Power (by Load Current)	3
4.Efficiency (by Input Voltage)	4
5.Efficiency (by Load Current)	5
6.Line Regulation	6
7.Load Regulation	7
8.Dynamic Load Response	8
9.Ripple Voltage (by Load Current)	9
10.Ripple-Noise	10
11.Ripple Voltage (by Ambient Temperature)	11
12.Ambient Temperature Drift	12
13.Output Voltage Accuracy	13
14.Time Lapse Drift	14
15.Rise and Fall Time	15
16.Minimum Input Voltage for Regulated Output Voltage	16
17.Overcurrent Protection	17
18.Figure of Testing Circuitry	18

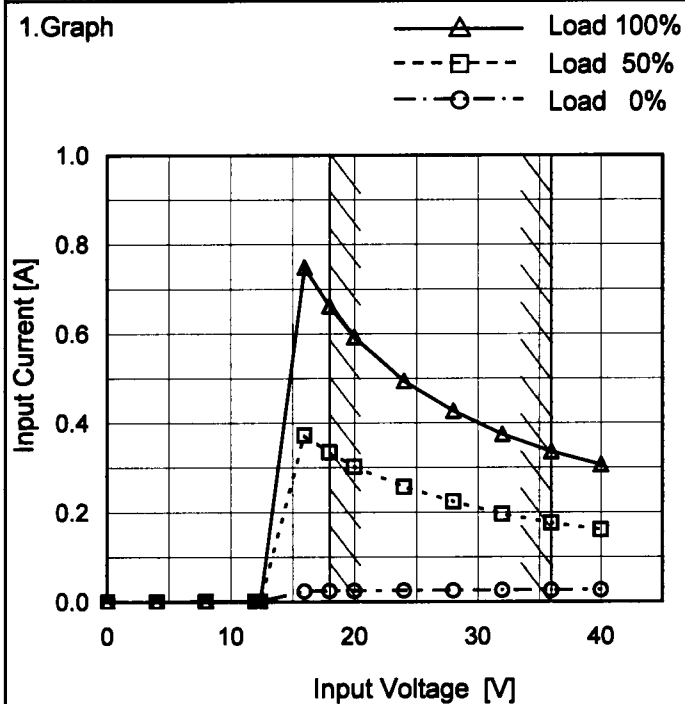
(Final Page 18)

COSEL

Model SUS102405/SUCS102405

Item Input Current (by Input Voltage)

Object
Temperature 25°C
Testing Circuitry Figure A

1. Graph


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

2. Values

Input Voltage [V]	Input Current [A]		
	Load 0%	Load 50%	Load 100%
0.0	0.000	0.000	0.000
4.0	0.000	0.000	0.000
8.0	0.001	0.001	0.001
12.0	0.001	0.001	0.001
12.4	0.001	0.001	0.001
16.0	0.024	0.373	0.750
18.0	0.024	0.335	0.662
20.0	0.025	0.303	0.593
24.0	0.025	0.257	0.495
28.0	0.025	0.224	0.428
32.0	0.026	0.196	0.375
36.0	0.026	0.176	0.336
40.0	0.026	0.161	0.307
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

COSEL

Model

SUS102405/SUCS102405

Item

Input Current (by Load Current)

Object

Temperature

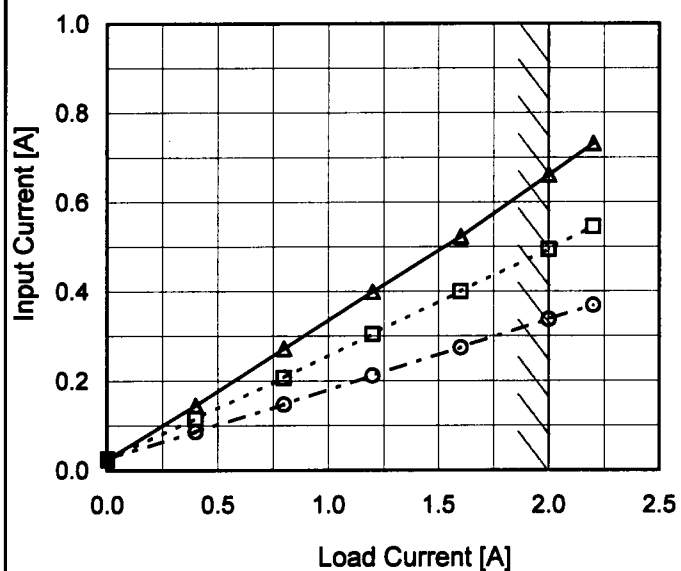
25°C

Testing Circuitry

Figure A

1. Graph

—△— Input Volt. 18V
 ---□--- Input Volt. 24V
 - - -○- - - Input Volt. 36V



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

2. Values

Load Current [A]	Input Current [A]		
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.0	0.024	0.025	0.026
0.4	0.145	0.115	0.086
0.8	0.272	0.207	0.147
1.2	0.400	0.305	0.212
1.6	0.523	0.400	0.275
2.0	0.661	0.495	0.337
2.2	0.731	0.545	0.369
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—

COSEL

Model		SUS102405/SUCS102405		Temperature 25°C																																																				
Item		Input Power (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>18V</div><div>24V</div><div>36V</div></div></div> <div><table><thead><tr><th>Load Current [A]</th><th>18V [W]</th><th>24V [W]</th><th>36V [W]</th></tr></thead><tbody><tr><td>0.0</td><td>0.44</td><td>0.60</td><td>0.93</td></tr><tr><td>0.4</td><td>2.63</td><td>2.79</td><td>3.11</td></tr><tr><td>0.8</td><td>4.90</td><td>4.98</td><td>5.31</td></tr><tr><td>1.2</td><td>7.16</td><td>7.31</td><td>7.65</td></tr><tr><td>1.6</td><td>9.50</td><td>9.58</td><td>9.90</td></tr><tr><td>2.0</td><td>11.93</td><td>11.90</td><td>12.15</td></tr><tr><td>2.2</td><td>13.17</td><td>13.09</td><td>13.29</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></tbody></table></div> <p>Note: Slanted line shows the range of the rated load current.</p>		Load Current [A]	18V [W]	24V [W]	36V [W]	0.0	0.44	0.60	0.93	0.4	2.63	2.79	3.11	0.8	4.90	4.98	5.31	1.2	7.16	7.31	7.65	1.6	9.50	9.58	9.90	2.0	11.93	11.90	12.15	2.2	13.17	13.09	13.29	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	2.Values				
Load Current [A]	18V [W]	24V [W]	36V [W]																																																					
0.0	0.44	0.60	0.93																																																					
0.4	2.63	2.79	3.11																																																					
0.8	4.90	4.98	5.31																																																					
1.2	7.16	7.31	7.65																																																					
1.6	9.50	9.58	9.90																																																					
2.0	11.93	11.90	12.15																																																					
2.2	13.17	13.09	13.29																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					
		<table><thead><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Power [W]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr></thead><tbody><tr><td>0.0</td><td>0.44</td><td>0.60</td><td>0.93</td></tr><tr><td>0.4</td><td>2.63</td><td>2.79</td><td>3.11</td></tr><tr><td>0.8</td><td>4.90</td><td>4.98</td><td>5.31</td></tr><tr><td>1.2</td><td>7.16</td><td>7.31</td><td>7.65</td></tr><tr><td>1.6</td><td>9.50</td><td>9.58</td><td>9.90</td></tr><tr><td>2.0</td><td>11.93</td><td>11.90</td><td>12.15</td></tr><tr><td>2.2</td><td>13.17</td><td>13.09</td><td>13.29</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></tbody></table>				Load Current [A]	Input Power [W]			Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.0	0.44	0.60	0.93	0.4	2.63	2.79	3.11	0.8	4.90	4.98	5.31	1.2	7.16	7.31	7.65	1.6	9.50	9.58	9.90	2.0	11.93	11.90	12.15	2.2	13.17	13.09	13.29	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
Load Current [A]	Input Power [W]																																																							
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																					
0.0	0.44	0.60	0.93																																																					
0.4	2.63	2.79	3.11																																																					
0.8	4.90	4.98	5.31																																																					
1.2	7.16	7.31	7.65																																																					
1.6	9.50	9.58	9.90																																																					
2.0	11.93	11.90	12.15																																																					
2.2	13.17	13.09	13.29																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					

COSEL

Model		SUS102405/SUCS102405		Temperature 25°C																																	
Item		Efficiency (by Input Voltage)		Testing Circuitry Figure A																																	
Object																																					
1.Graph				2.Values																																	
<div><div><div>---□--- Load 50%</div><div>—△— Load 100%</div></div><p>Efficiency [%]</p><p>Input Voltage [V]</p><p>Note: Slanted line shows the range of the rated input voltage.</p></div>				<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Efficiency [%]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>16</td><td>84.2</td><td>83.9</td></tr><tr><td>18</td><td>83.5</td><td>84.3</td></tr><tr><td>20</td><td>83.0</td><td>84.6</td></tr><tr><td>24</td><td>81.4</td><td>84.6</td></tr><tr><td>30</td><td>80.0</td><td>83.9</td></tr><tr><td>36</td><td>79.3</td><td>82.8</td></tr><tr><td>40</td><td>78.1</td><td>81.9</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Efficiency [%]		Load 50%	Load 100%	16	84.2	83.9	18	83.5	84.3	20	83.0	84.6	24	81.4	84.6	30	80.0	83.9	36	79.3	82.8	40	78.1	81.9	--	-	-	--	-	-
Input Voltage [V]	Efficiency [%]																																				
	Load 50%	Load 100%																																			
16	84.2	83.9																																			
18	83.5	84.3																																			
20	83.0	84.6																																			
24	81.4	84.6																																			
30	80.0	83.9																																			
36	79.3	82.8																																			
40	78.1	81.9																																			
--	-	-																																			
--	-	-																																			

COSEL

Model		SUS102405/SUCS102405		Temperature 25°C																																																				
Item		Efficiency (by Load Current)		Testing Circuitry Figure A																																																				
Object																																																								
1.Graph		<div><div>—△—</div>Input Volt. 18V</div> <div><div>---□---</div>Input Volt. 24V</div> <div><div>---○---</div>Input Volt. 36V</div> <p>Efficiency [%]</p> <p>Load Current [A]</p>		2.Values																																																				
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Efficiency [%]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>0.0</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.4</td><td>76.7</td><td>72.4</td><td>64.8</td></tr><tr><td>0.8</td><td>82.3</td><td>80.9</td><td>75.9</td></tr><tr><td>1.2</td><td>84.5</td><td>82.7</td><td>79.0</td></tr><tr><td>1.6</td><td>84.8</td><td>84.1</td><td>81.4</td></tr><tr><td>2.0</td><td>84.4</td><td>84.6</td><td>82.9</td></tr><tr><td>2.2</td><td>84.1</td><td>84.6</td><td>83.3</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 Current [A]	Efficiency [%]			Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.0	-	-	-	0.4	76.7	72.4	64.8	0.8	82.3	80.9	75.9	1.2	84.5	82.7	79.0	1.6	84.8	84.1	81.4	2.0	84.4	84.6	82.9	2.2	84.1	84.6	83.3	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-		
Load Current [A]	Efficiency [%]																																																							
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																					
0.0	-	-	-																																																					
0.4	76.7	72.4	64.8																																																					
0.8	82.3	80.9	75.9																																																					
1.2	84.5	82.7	79.0																																																					
1.6	84.8	84.1	81.4																																																					
2.0	84.4	84.6	82.9																																																					
2.2	84.1	84.6	83.3																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					
--	-	-	-																																																					
Note: Slanted line shows the range of the rated load current.																																																								

COSEL

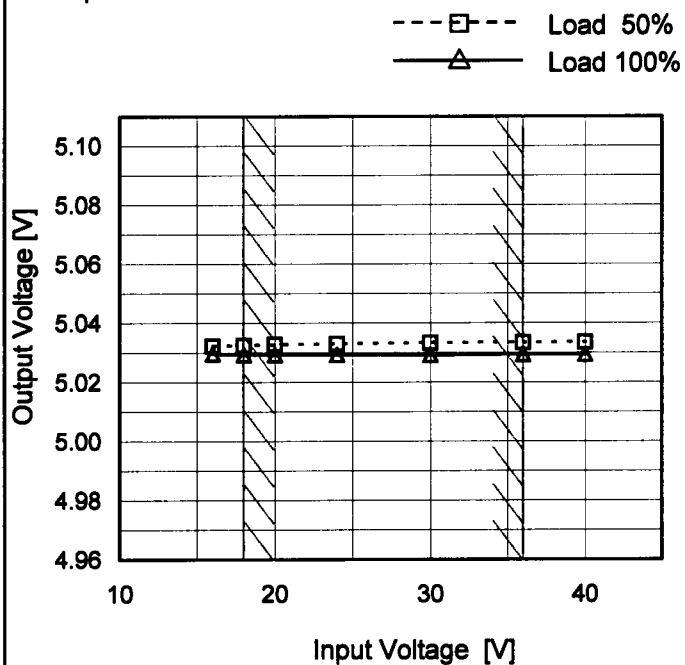
Model SUS102405/SUCS102405

Item Line Regulation

Object +5V2A

Temperature 25°C
Testing Circuitry Figure A

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%
16	5.032	5.030
18	5.033	5.029
20	5.033	5.029
24	5.033	5.029
30	5.033	5.029
36	5.033	5.029
40	5.034	5.029
—	—	—
—	—	—

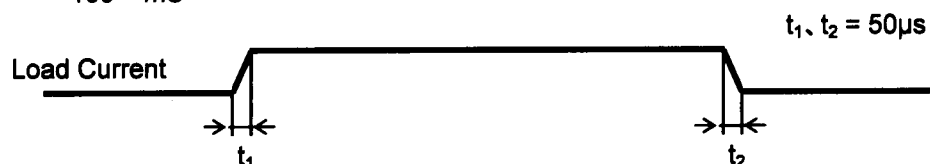
COSEL

Model	SUS102405/SUCS102405	Temperature 25°C Testing Circuitry Figure A																																																				
Item	Load Regulation																																																					
Object	+5V2A																																																					
1.Graph		2.Values																																																				
<div><div>—△— Input Volt. 18V</div><div>---□--- Input Volt. 24V</div><div>---○--- Input Volt. 36V</div></div> <p>Output Voltage [V]</p> <p>Load Current [A]</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th></tr><tr><td>0.0</td><td>5.035</td><td>5.036</td><td>5.037</td></tr><tr><td>0.4</td><td>5.034</td><td>5.034</td><td>5.035</td></tr><tr><td>0.8</td><td>5.033</td><td>5.034</td><td>5.034</td></tr><tr><td>1.2</td><td>5.032</td><td>5.033</td><td>5.033</td></tr><tr><td>1.6</td><td>5.031</td><td>5.031</td><td>5.032</td></tr><tr><td>2.0</td><td>5.030</td><td>5.030</td><td>5.030</td></tr><tr><td>2.2</td><td>5.029</td><td>5.030</td><td>5.030</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 Current [A]	Output Voltage [V]			Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	0.0	5.035	5.036	5.037	0.4	5.034	5.034	5.035	0.8	5.033	5.034	5.034	1.2	5.032	5.033	5.033	1.6	5.031	5.031	5.032	2.0	5.030	5.030	5.030	2.2	5.029	5.030	5.030	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
Load Current [A]	Output Voltage [V]																																																					
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]																																																			
0.0	5.035	5.036	5.037																																																			
0.4	5.034	5.034	5.035																																																			
0.8	5.033	5.034	5.034																																																			
1.2	5.032	5.033	5.033																																																			
1.6	5.031	5.031	5.032																																																			
2.0	5.030	5.030	5.030																																																			
2.2	5.029	5.030	5.030																																																			
--	-	-	-																																																			
--	-	-	-																																																			
--	-	-	-																																																			
--	-	-	-																																																			
Note: Slanted line shows the range of the rated load current.																																																						

COSEL

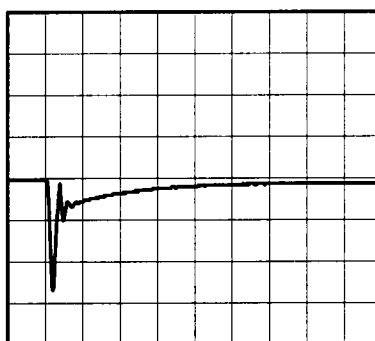
Model	SUS102405/SUCS102405	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+5V2A		

Input Volt. 24 V
Cycle 100 mS

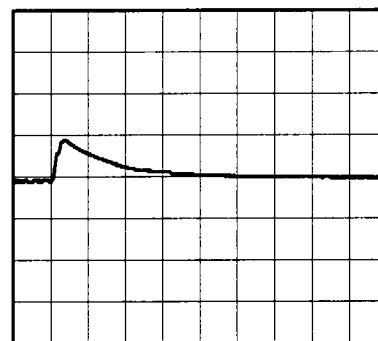


Min. Load (0A) \longleftrightarrow
Load 100% (2A)

200mV/div



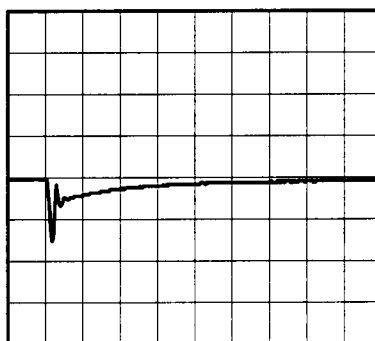
200µs/div



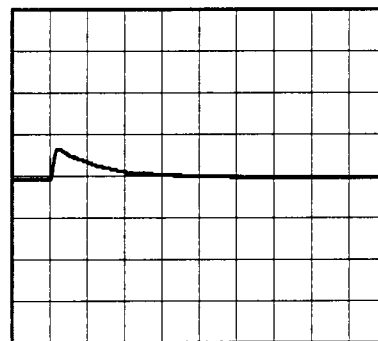
200µs/div

Min. Load (0A) \longleftrightarrow
Load 50% (1A)

200mV/div



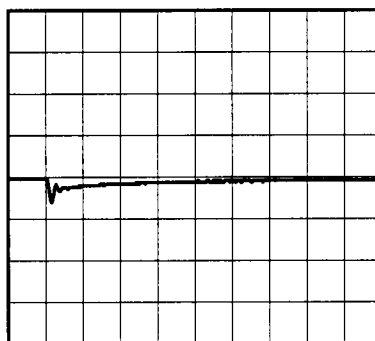
200µs/div



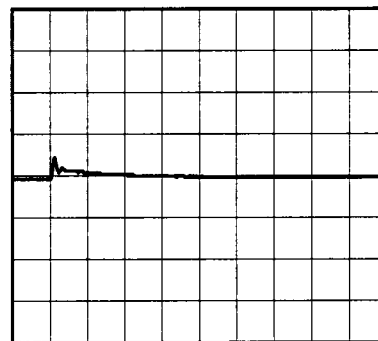
200µs/div

Load 50% (1A) \longleftrightarrow
Load 100% (2A)

200mV/div



200µs/div



200µs/div

COSEL

Model	SUS102405/SUCS102405	Temperature 25°C Testing Circuitry Figure B																																							
Item	Ripple Voltage (by Load Current)																																								
Object	+5V2A																																								
1.Graph		2.Values																																							
<div><div><div><div></div><div>Input Volt. 18V</div></div><div><div></div><div>Input Volt. 36V</div></div></div><div><p>Ripple Voltage [mV]</p><p>Load Current [A]</p></div></div>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 18 [V]</th><th>Input Volt. 36 [V]</th></tr><tr><td>0.0</td><td>2</td><td>3</td></tr><tr><td>0.4</td><td>7</td><td>8</td></tr><tr><td>0.8</td><td>11</td><td>10</td></tr><tr><td>1.2</td><td>15</td><td>13</td></tr><tr><td>1.6</td><td>19</td><td>15</td></tr><tr><td>2.0</td><td>24</td><td>16</td></tr><tr><td>2.2</td><td>27</td><td>17</td></tr><tr><td>—</td><td>—</td><td>—</td></tr><tr><td>—</td><td>—</td><td>—</td></tr><tr><td>—</td><td>—</td><td>—</td></tr><tr><td>—</td><td>—</td><td>—</td></tr></table>		Load Current [A]	Ripple Voltage [mV]		Input Volt. 18 [V]	Input Volt. 36 [V]	0.0	2	3	0.4	7	8	0.8	11	10	1.2	15	13	1.6	19	15	2.0	24	16	2.2	27	17	—	—	—	—	—	—	—	—	—	—	—	—
Load Current [A]	Ripple Voltage [mV]																																								
	Input Volt. 18 [V]	Input Volt. 36 [V]																																							
0.0	2	3																																							
0.4	7	8																																							
0.8	11	10																																							
1.2	15	13																																							
1.6	19	15																																							
2.0	24	16																																							
2.2	27	17																																							
—	—	—																																							
—	—	—																																							
—	—	—																																							
—	—	—																																							
<p>Measured by 100 MHz Oscilloscope. Ripple Voltage is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p>																																									
<div><div><div><div></div><div>Ripple [mVp-p]</div></div><div><p>Fig.Complex Ripple Wave Form</p></div></div></div>																																									

Model		SUS102405/SUCS102405	
Item		Ripple-Noise	
Object		+5V2A	
1.Graph		2.Values	
<div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div>			

COSEL

Model

SUS102405/SUCS102405

Item

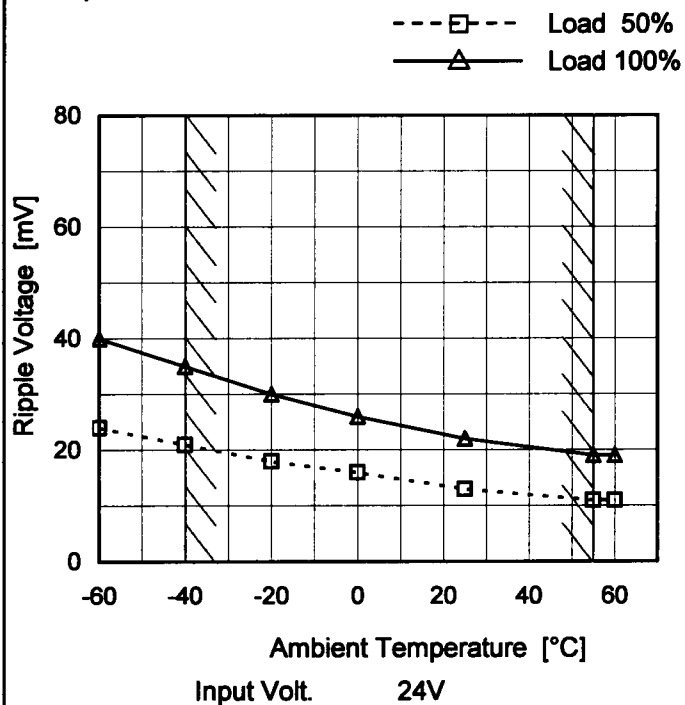
Ripple Voltage (by Ambient Temp.)

Object

+5V2A

Testing Circuitry Figure B

1. Graph



Measured by 100 MHz Oscilloscope.

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

2. Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-60	24	40
-40	21	35
-20	18	30
0	16	26
25	13	22
55	11	19
60	11	19
—	—	—
—	—	—
—	—	—
—	—	—

COSEL

Model

SUS102405/SUCS102405

Item

Ambient Temperature Drift

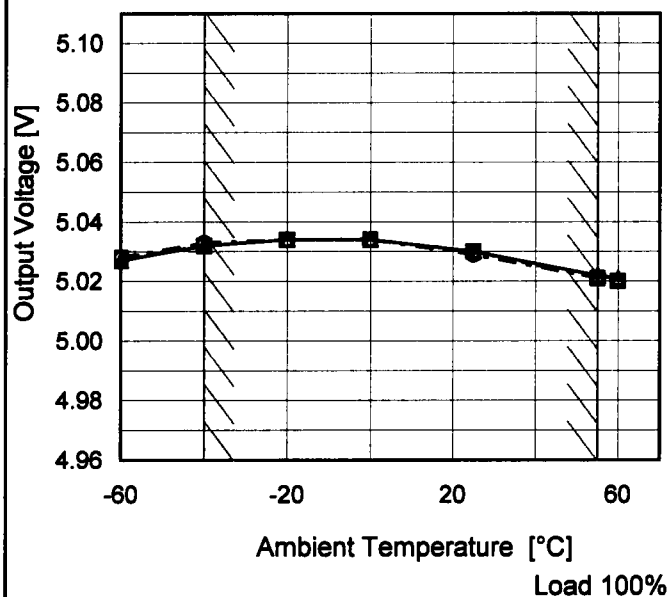
Object

+5V2A

Testing Circuitry Figure A

1. Graph

—△— Input Volt. 18V
 ---□--- Input Volt. 24V
 ---○--- Input Volt. 36V



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

2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-60	5.027	5.028	5.028
-40	5.032	5.032	5.033
-20	5.034	5.034	5.034
0	5.034	5.034	5.034
25	5.030	5.030	5.029
55	5.022	5.021	5.021
60	5.021	5.020	5.020
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—



		Testing Circuitry Figure A
Model	SUS102405/SUCS102405	
Item	Output Voltage Accuracy	
Object	+5V2A	

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 : 18 - 36V

Load Current : 0 - 2A

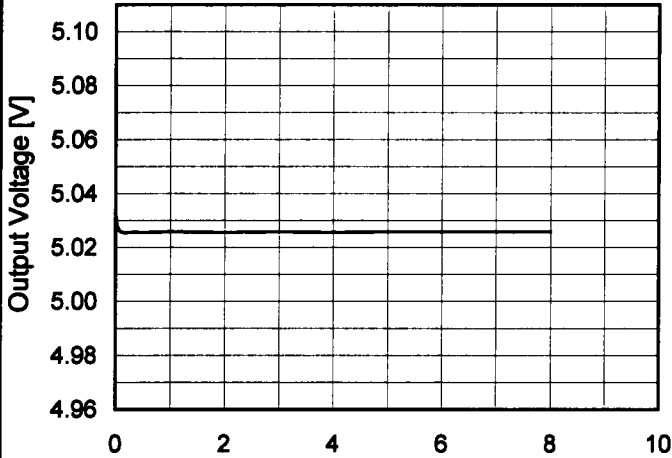
* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

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

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	0	36	0	5.040	±10	±0.2
Minimum Voltage	55	36	2	5.021		

COSEL

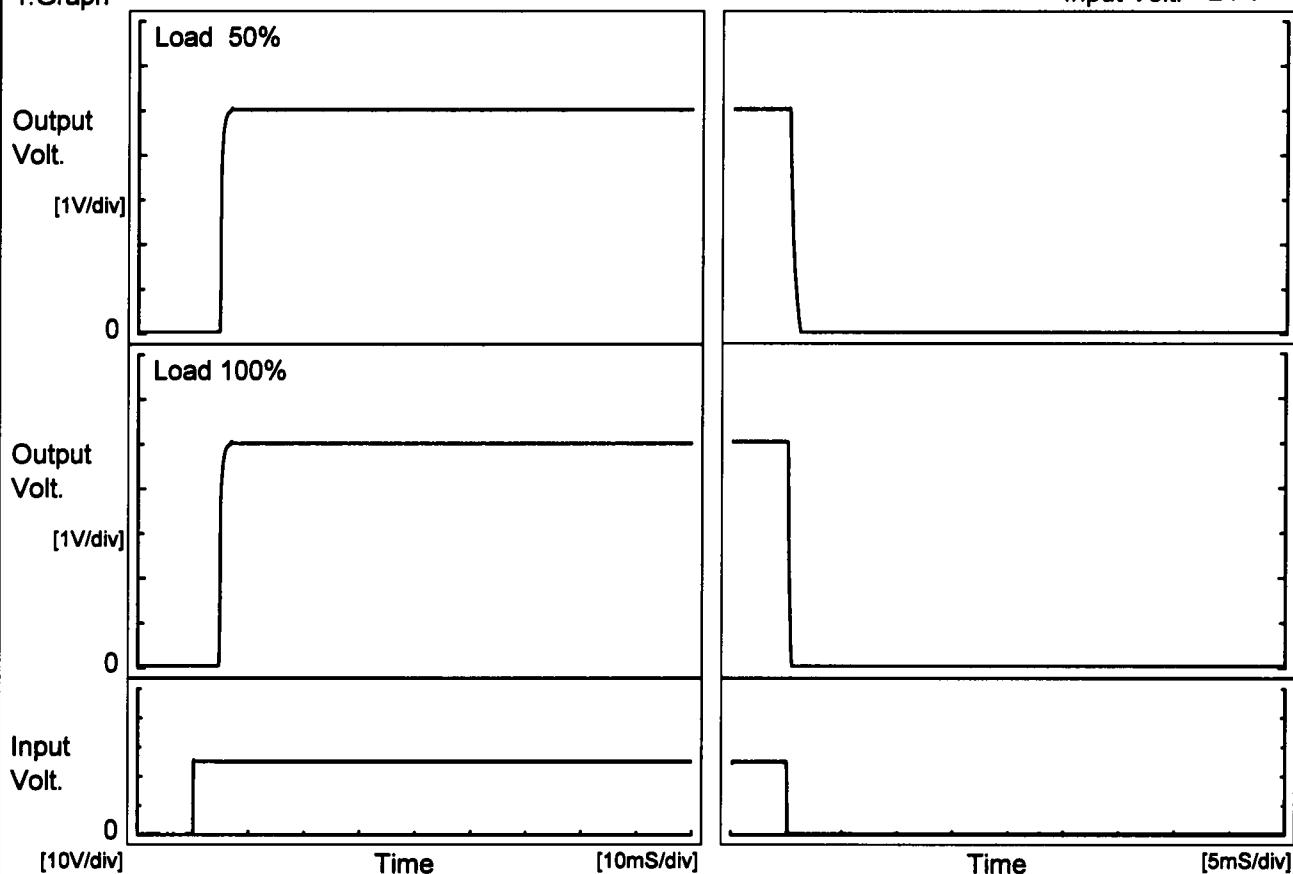
Model		SUS102405/SUCS102405																							
Item		Time Lapse Drift																							
Object		+5V2A																							
1.Graph		2.Values																							
<div><p>Output Voltage [V]</p><p>Time [H]</p><p>Input Volt. 24V</p><p>Load 100%</p></div>		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>5.033</td></tr><tr><td>0.5</td><td>5.026</td></tr><tr><td>1.0</td><td>5.026</td></tr><tr><td>2.0</td><td>5.026</td></tr><tr><td>3.0</td><td>5.026</td></tr><tr><td>4.0</td><td>5.026</td></tr><tr><td>5.0</td><td>5.026</td></tr><tr><td>6.0</td><td>5.026</td></tr><tr><td>7.0</td><td>5.026</td></tr><tr><td>8.0</td><td>5.026</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	5.033	0.5	5.026	1.0	5.026	2.0	5.026	3.0	5.026	4.0	5.026	5.0	5.026	6.0	5.026	7.0	5.026	8.0	5.026
Time since start [H]	Output Voltage [V]																								
0.0	5.033																								
0.5	5.026																								
1.0	5.026																								
2.0	5.026																								
3.0	5.026																								
4.0	5.026																								
5.0	5.026																								
6.0	5.026																								
7.0	5.026																								
8.0	5.026																								

COSEL

Model	SUS102405/SUCS102405	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V2A		

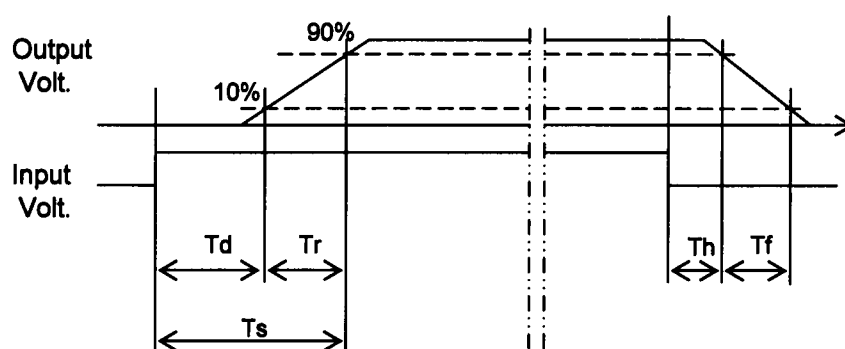
1. Graph

Input Volt. 24 V



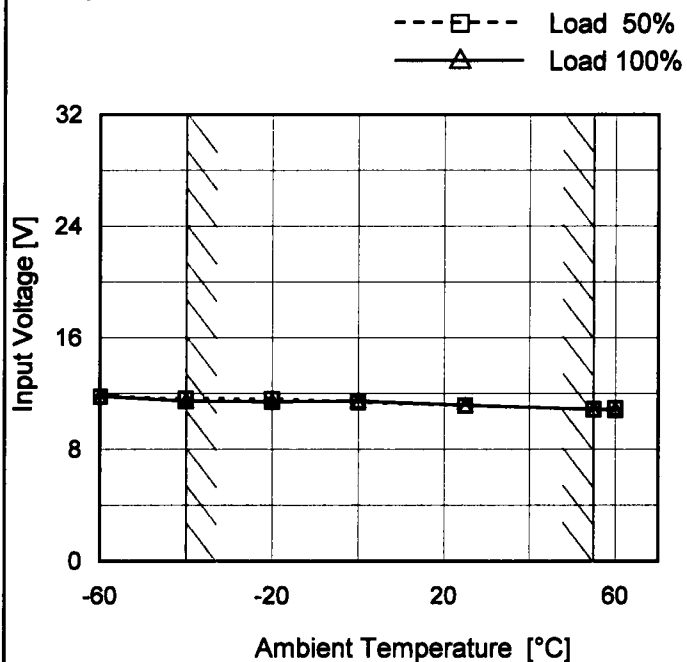
2. Values

		[mS]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		4.7	0.6	5.3	0.2	0.7
100 %		4.6	0.7	5.3	0.1	0.3



Model	SUS102405/SUCS102405
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+5V2A

1. Graph



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

Testing Circuitry Figure A

2. Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-60	11.8	11.9
-40	11.7	11.5
-20	11.7	11.5
0	11.4	11.5
25	11.2	11.2
55	10.9	10.9
60	11.0	10.9
—	—	—
—	—	—
—	—	—
—	—	—

[illegible]

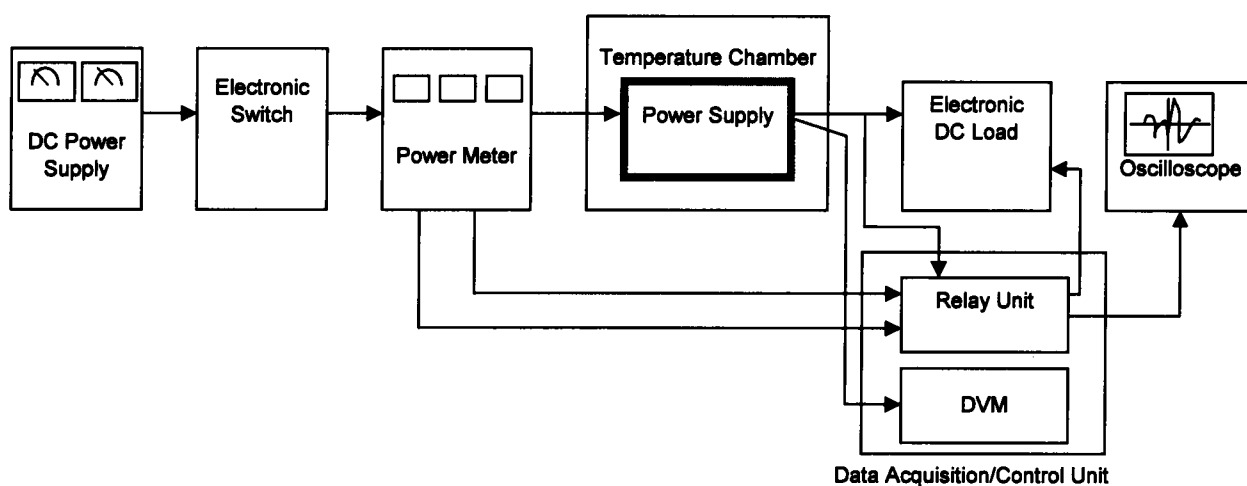


Figure A

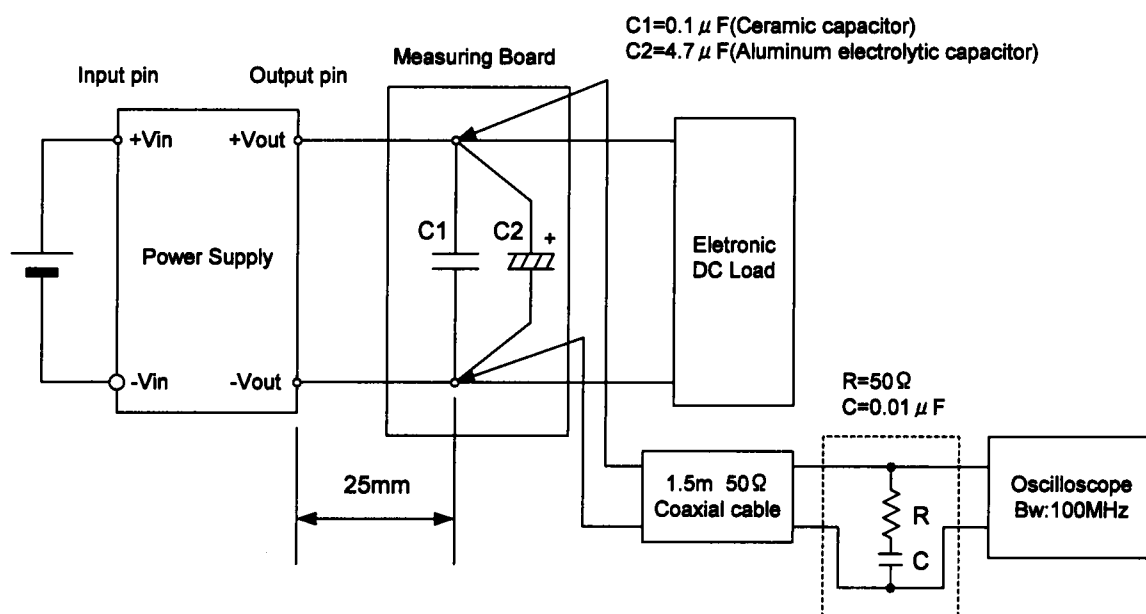


Figure B (Ripple and Ripple noise Characteristic)