



TEST DATA OF SFS304805/SFCS304805

Regulated DC Power Supply
Jun.1. 2007

Approved by : Toshiyuki Tsuru
Toshiyuki Tsuru Design Manager

Prepared by : K. Shibutani
Kenichi Shibutani Design Engineer

COSEL CO.,LTD.

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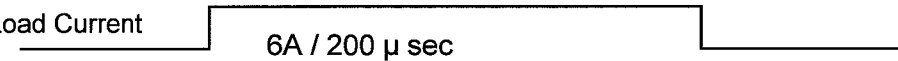
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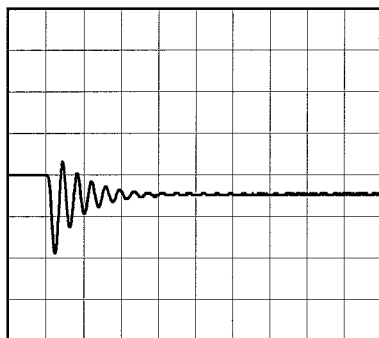
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Input Volt. 48 V
Cycle 1000 mS

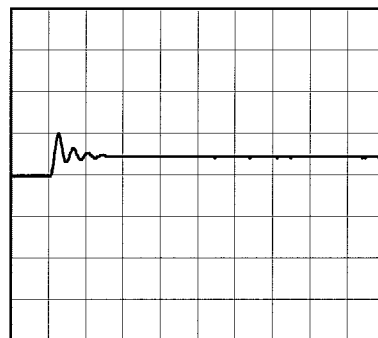
Load Current  6A / 200 µ sec

Min. Load (0A) ←→
Load 100% (6A)

200mV/div



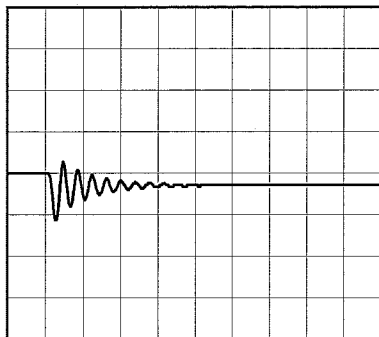
200 µs/div



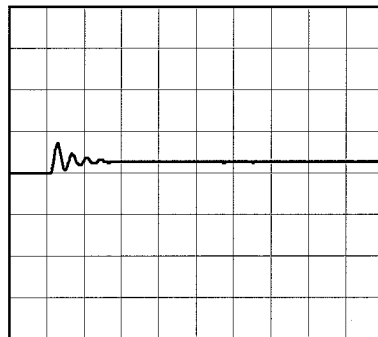
200 µs/div

Min. Load (0A) ←→
Load 50% (3A)

200mV/div



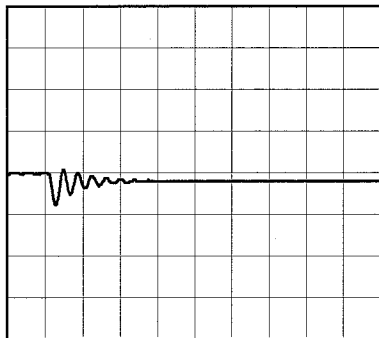
200 µs/div



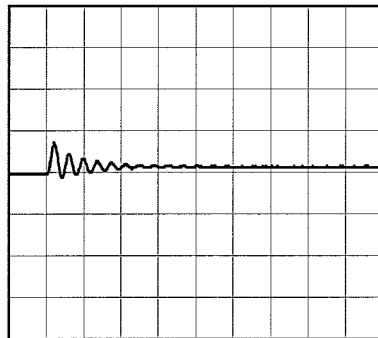
200 µs/div

Load 50% (3A) ←→
Load 100% (6A)

200mV/div



200 µs/div



200 µs/div



COSEL																																								
Model	SFS304805/SFCS304805	Temperature 25°C Testing Circuitry Figure C																																						
Item	Ripple Voltage (by Load Current)																																							
Object	+5V6A																																							
<p>1. Graph</p> <div style="text-align: right;"> <p>—△— Input Volt. 36V</p> <p>- - -○- - - Input Volt. 76V</p> </div> <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>		<p>2. Values</p> <table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="2">Ripple Voltage [mV]</th> </tr> <tr> <th>Input Volt. 36 [V]</th> <th>Input Volt. 76 [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>5</td><td>6</td></tr> <tr><td>1.2</td><td>5</td><td>6</td></tr> <tr><td>2.4</td><td>5</td><td>6</td></tr> <tr><td>3.6</td><td>5</td><td>6</td></tr> <tr><td>4.8</td><td>5</td><td>6</td></tr> <tr><td>6.0</td><td>5</td><td>6</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> <tr><td>--</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	Ripple Voltage [mV]		Input Volt. 36 [V]	Input Volt. 76 [V]	0.0	5	6	1.2	5	6	2.4	5	6	3.6	5	6	4.8	5	6	6.0	5	6	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-
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<p>Ripple [mVp-p]</p> <p>Fig. Complex Ripple Wave Form</p>																																								



Model		SFS304805/SFCS304805		Temperature	25°C																																						
Item		Ripple-Noise		Testing Circuitry	Figure C																																						
Object		+5V6A																																									
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Item		Ripple Voltage (by Ambient Temp.)																																							
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<p> ---□--- Load 50% —△— Load 100% </p> <p style="text-align: center;">Ambient Temperature [°C]</p> <p style="text-align: center;">Input Volt. 48V</p>		2.Values																																							
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Model		SFS304805/SFCS304805																																																				
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COSEL		
Model	SFS304805/SFCS304805	
Item	Output Voltage Accuracy	Testing Circuitry Figure A
Object	+5V6A	

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 - 85°C

Input Voltage : 36 - 76V

Load Current : 0 - 6A

* 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	85	48	0	5.113	±67	±1.3
Minimum Voltage	-40	76	6	4.979		

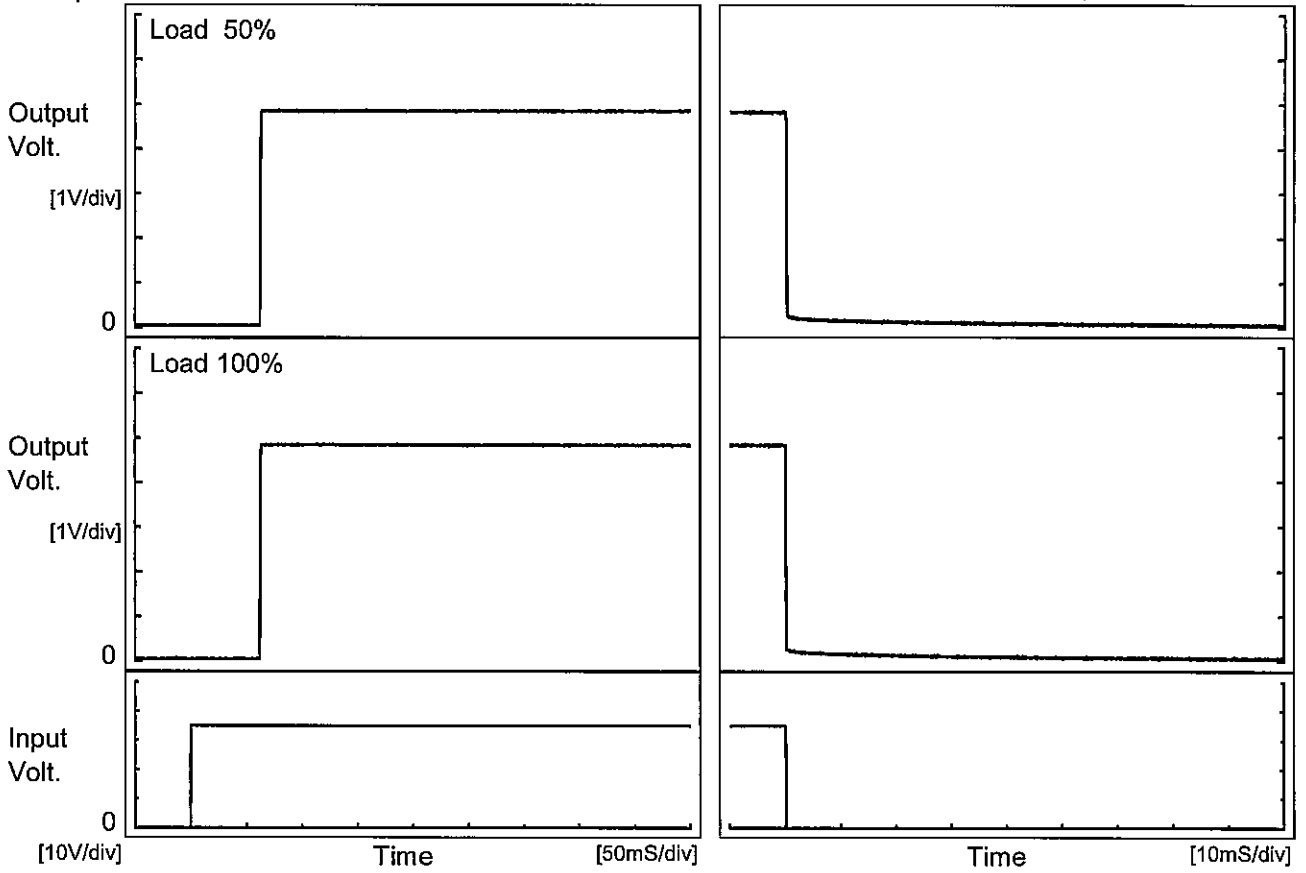


COSEL																									
Model	SFS304805/SFCS304805	Temperature	25°C																						
Item	Time Lapse Drift	Testing Circuitry	Figure A																						
Object	+5V6A																								
<p>1. Graph</p> <p style="text-align: center;">Time [H]</p> <p>Input Volt. 48V Load 100%</p>		<p>2. Values</p> <table border="1"> <thead> <tr> <th>Time since start [H]</th> <th>Output Voltage [V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>5.002</td></tr> <tr><td>0.5</td><td>5.002</td></tr> <tr><td>1.0</td><td>5.002</td></tr> <tr><td>2.0</td><td>5.002</td></tr> <tr><td>3.0</td><td>5.002</td></tr> <tr><td>4.0</td><td>5.002</td></tr> <tr><td>5.0</td><td>5.002</td></tr> <tr><td>6.0</td><td>5.002</td></tr> <tr><td>7.0</td><td>5.002</td></tr> <tr><td>8.0</td><td>5.002</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	5.002	0.5	5.002	1.0	5.002	2.0	5.002	3.0	5.002	4.0	5.002	5.0	5.002	6.0	5.002	7.0	5.002	8.0	5.002
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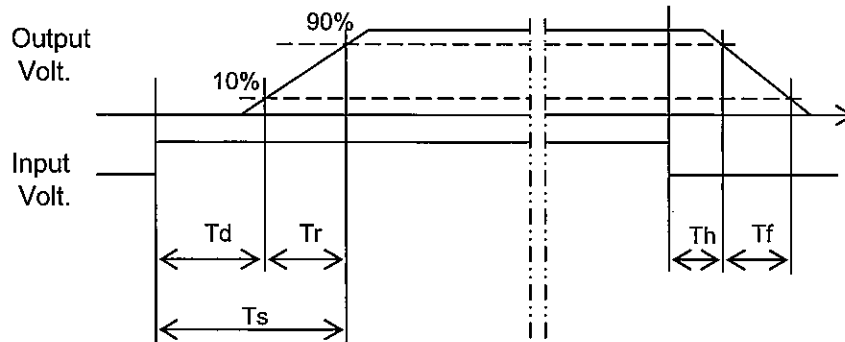
Model	SFS304805/SFCS304805	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V6A		

1. Graph



2. Values

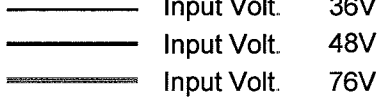
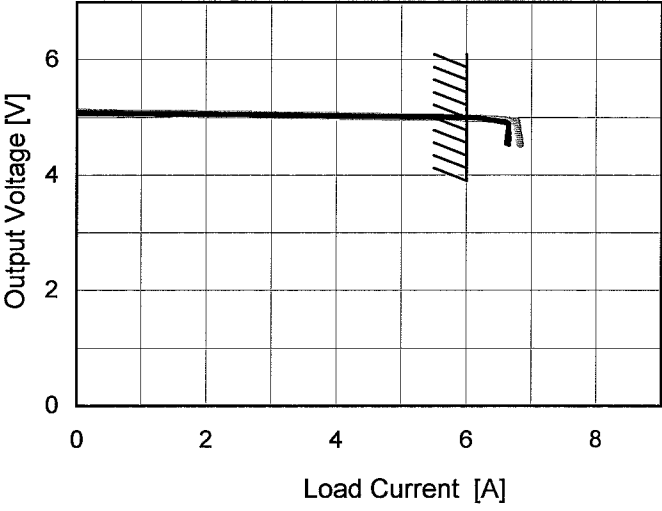
		[mS]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		62.3	0.5	62.8	0.1	0.2
100 %		62.0	0.6	62.6	0.0	0.2





<p>Model SFS304805/SFCS304805</p> <p>Item Minimum Input Voltage for Regulated Output Voltage</p> <p>Object +5V6A</p>		Testing Circuitry Figure A																																						
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Model		SFS304805/SFCS304805		Temperature 25°C																																																												
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		<table border="1"> <thead> <tr> <th rowspan="2">Ambient Temperature [°C]</th> <th colspan="3">Operating Point [V]</th> </tr> <tr> <th>Input Volt. 48[V]</th> <th>Input Volt.</th> <th>Input Volt.</th> </tr> </thead> <tbody> <tr> <td>-40</td> <td>6.81</td> <td>-</td> <td>-</td> </tr> <tr> <td>25</td> <td>6.74</td> <td>-</td> <td>-</td> </tr> <tr> <td>85</td> <td>6.68</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> <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> <tr> <td>--</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Ambient Temperature [°C]	Operating Point [V]			Input Volt. 48[V]	Input Volt.	Input Volt.	-40	6.81	-	-	25	6.74	-	-	85	6.68	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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<p>Note: Slanted line shows the range of the rated ambient temperature.</p>																																																							

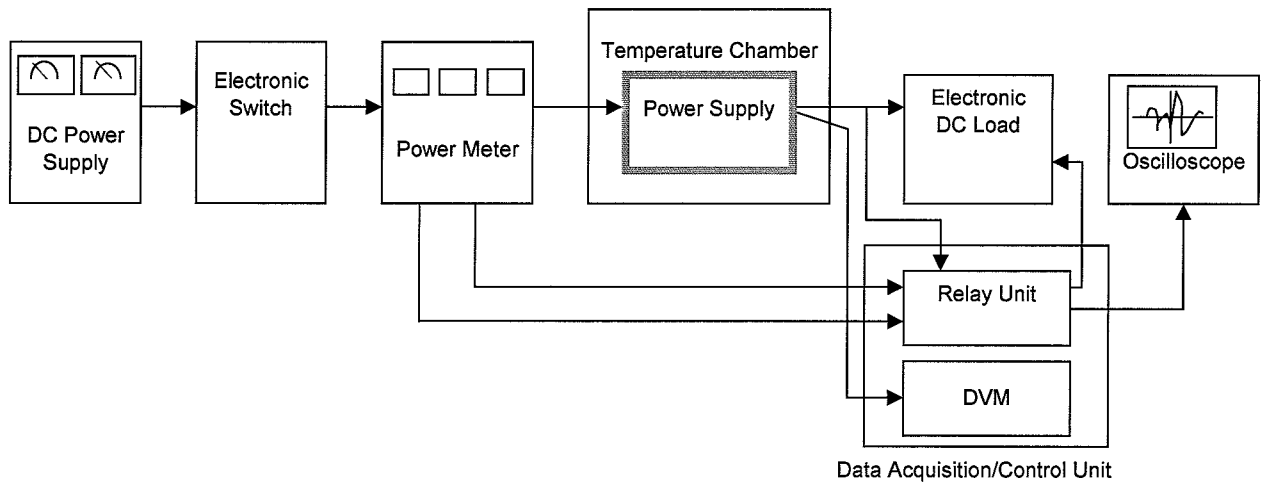


Figure A

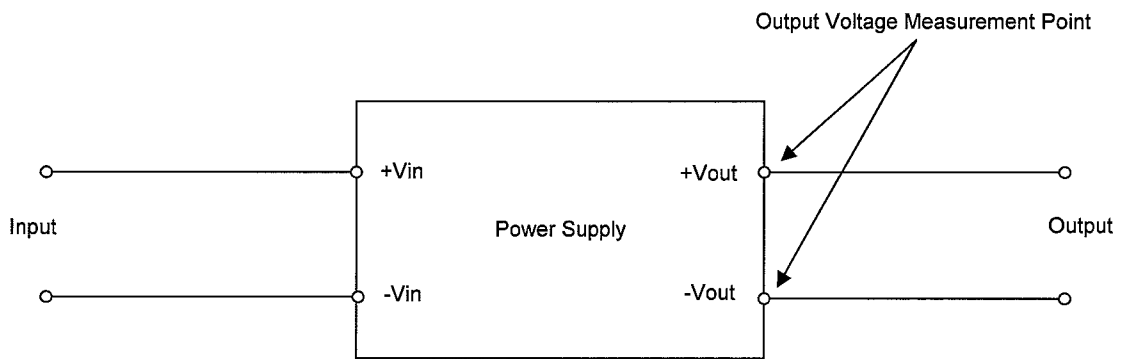


Figure B (General Electric Characteristic)

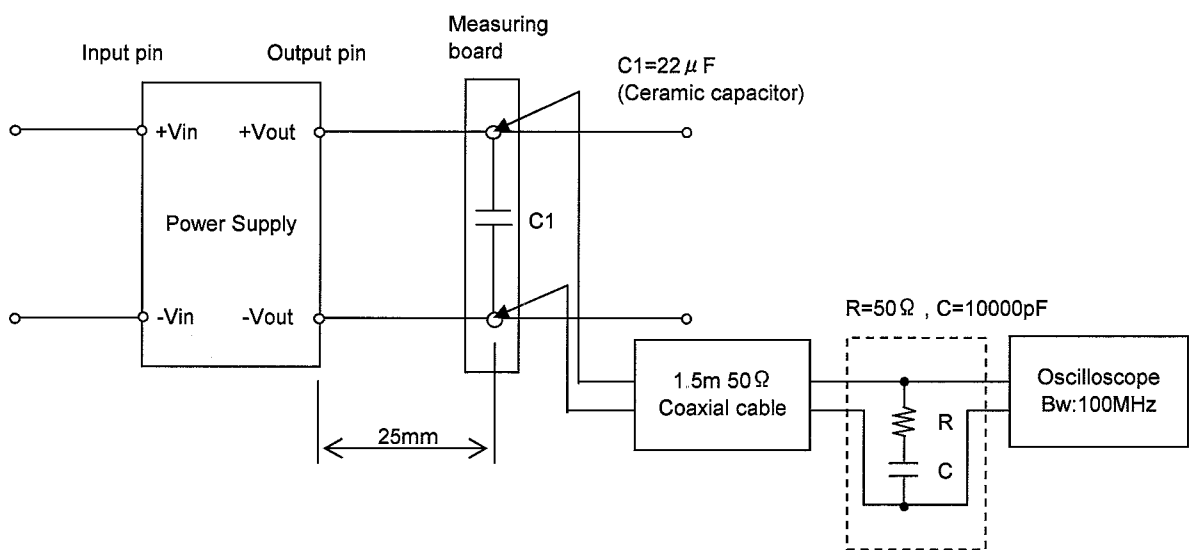


Figure C (Ripple and Ripple noise Characteristic)