



# TEST DATA OF SFS302405/SFCS302405

Regulated DC Power Supply  
Jul 20,2006

Approved by : Isao Yasuda Design Manager

Prepared by : Kenichi Shibutani Design Engineer

**COSEL CO.,LTD.**

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Model		SFS302405/SFCS302405		Temperature	25°C																																																																							
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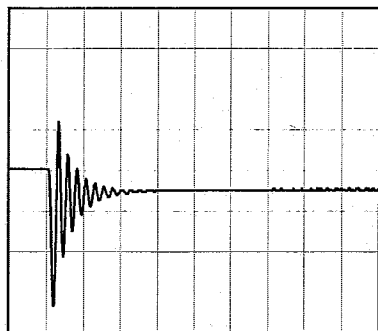
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Item		Dynamic Load Response	
Object		+5V6A	

Input Volt. 24 V  
Cycle 1000 mS

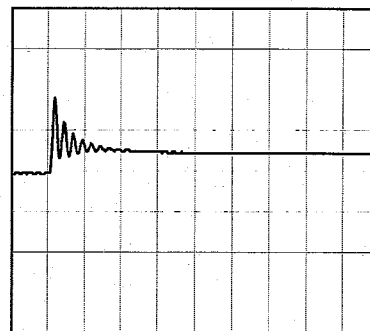
Load Current 6A / 200  $\mu$

Min. Load (0A)  $\longleftrightarrow$   
Load 100% (6A)

200mV/div



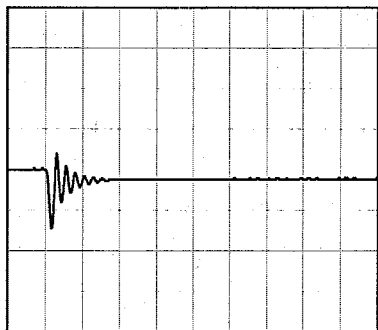
200  $\mu$  s/div



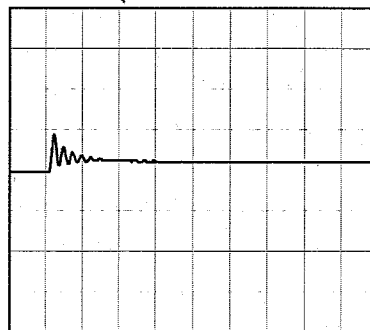
200  $\mu$  s/div

Min. Load (0A)  $\longleftrightarrow$   
Load 50% (3A)

200mV/div



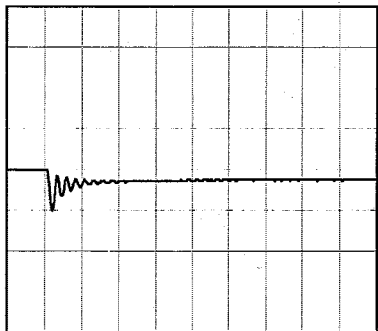
200  $\mu$  s/div



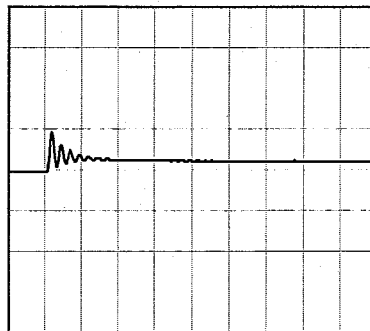
200  $\mu$  s/div

Load 50% (3A)  $\longleftrightarrow$   
Load 100% (6A)

200mV/div



200  $\mu$  s/div



200  $\mu$  s/div



Model		SFS302405/SFCS302405		Temperature 25°C																																							
Item		Ripple Voltage (by Load Current)		Testing Circuitry Figure C																																							
Object		+5V6A																																									
1. Graph				2. Values																																							
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<p>Ripple [mVp-p]</p> <p>Fig. Complex Ripple Wave Form</p>																																											



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Model		SFS302405/SFCS302405		Testing Circuitry Figure A																																																				
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<b>COSEL</b>		
Model	SFS302405/SFCS302405	
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 : 18 - 36V

Load Current : 0 - 6A

\* 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	85	24	0	5.128	±88	±1.8
Minimum Voltage	-40	36	6	4.952		



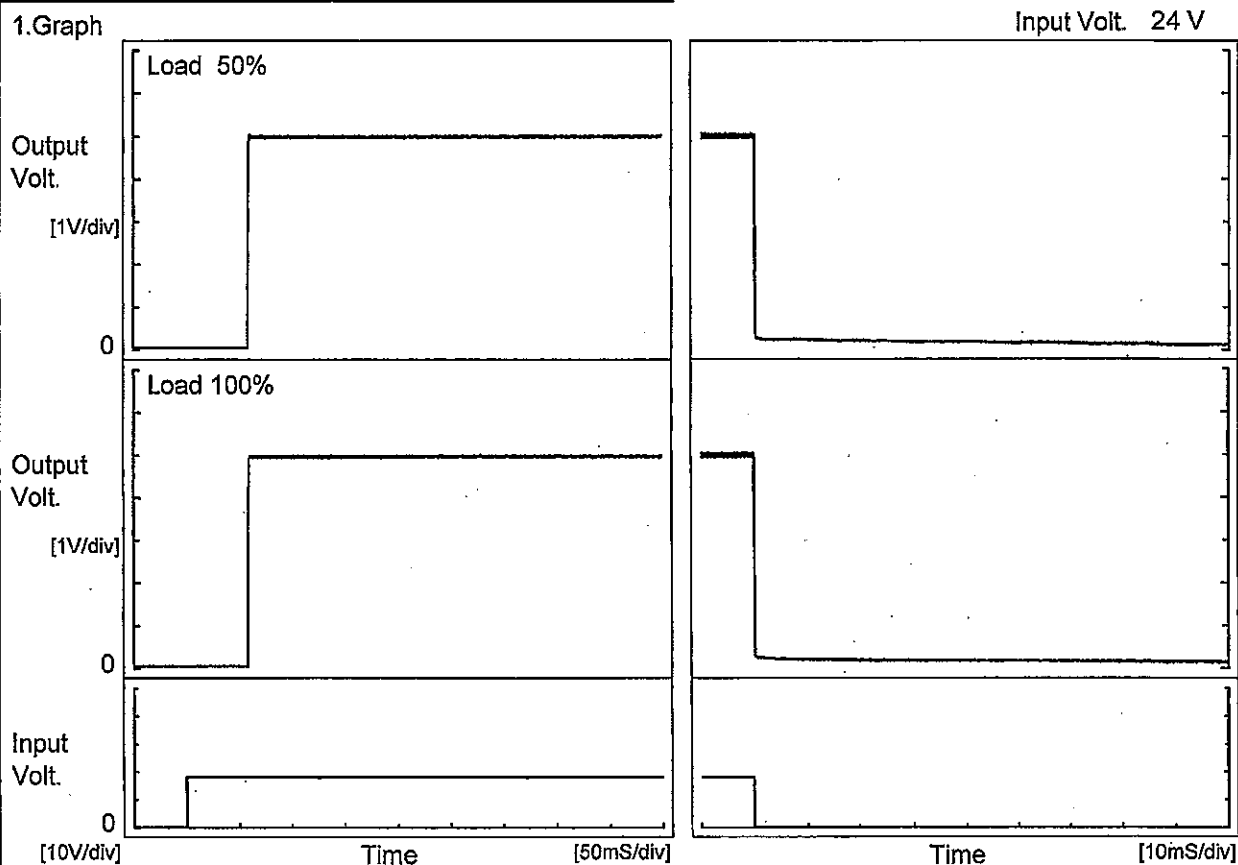
<b>COSEL</b>																									
Model	SFS302405/SFCS302405	Temperature	25°C																						
Item	Time Lapse Drift	Testing Circuitry	Figure A																						
Object	+5V6A																								
<p>1. Graph</p> <p style="text-align: center;">Time [H]</p> <p>Input Volt.     24V Load             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>5.000</td></tr> <tr><td>0.5</td><td>5.006</td></tr> <tr><td>1.0</td><td>5.006</td></tr> <tr><td>2.0</td><td>5.006</td></tr> <tr><td>3.0</td><td>5.006</td></tr> <tr><td>4.0</td><td>5.006</td></tr> <tr><td>5.0</td><td>5.006</td></tr> <tr><td>6.0</td><td>5.006</td></tr> <tr><td>7.0</td><td>5.006</td></tr> <tr><td>8.0</td><td>5.006</td></tr> </tbody> </table>		Time since start [H]	Output Voltage [V]	0.0	5.000	0.5	5.006	1.0	5.006	2.0	5.006	3.0	5.006	4.0	5.006	5.0	5.006	6.0	5.006	7.0	5.006	8.0	5.006
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Model	SFS302405/SFCS302405	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V6A		

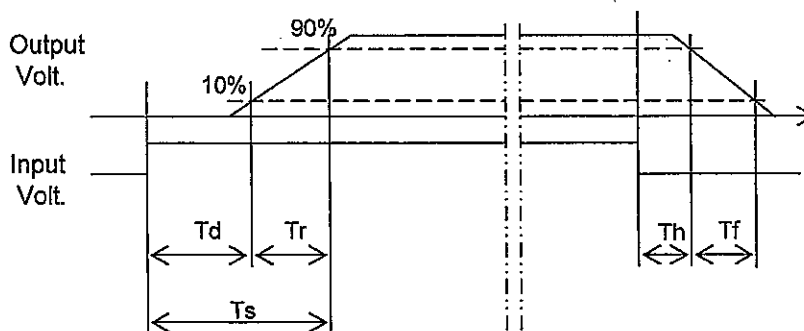
1. Graph



2. Values

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	59.0	0.4	59.4	0.1	0.3
100 %	58.5	0.5	59.0	0.1	0.2

[mS]





Model		SFS302405/SFCS302405	Testing Circuitry Figure A																																						
Item		Minimum Input Voltage for Regulated Output Voltage																																							
Object		+5V6A																																							
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Item		Overcurrent Protection		Testing Circuitry	Figure A																																																			
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1.Graph		Testing Circuitry Figure A																																																				
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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. 24[V]</th> <th>Input Volt.</th> <th>Input Volt.</th> </tr> </thead> <tbody> <tr> <td>-40</td> <td>6.72</td> <td>-</td> <td>-</td> </tr> <tr> <td>25</td> <td>6.66</td> <td>-</td> <td>-</td> </tr> <tr> <td>85</td> <td>6.60</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. 24[V]	Input Volt.	Input Volt.	-40	6.72	-	-	25	6.66	-	-	85	6.60	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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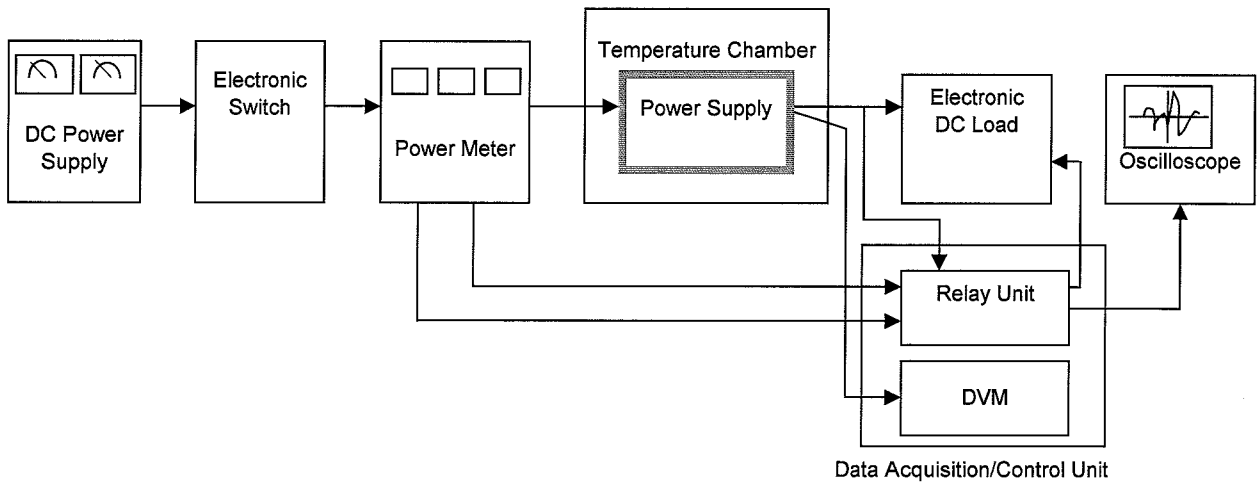


Figure A

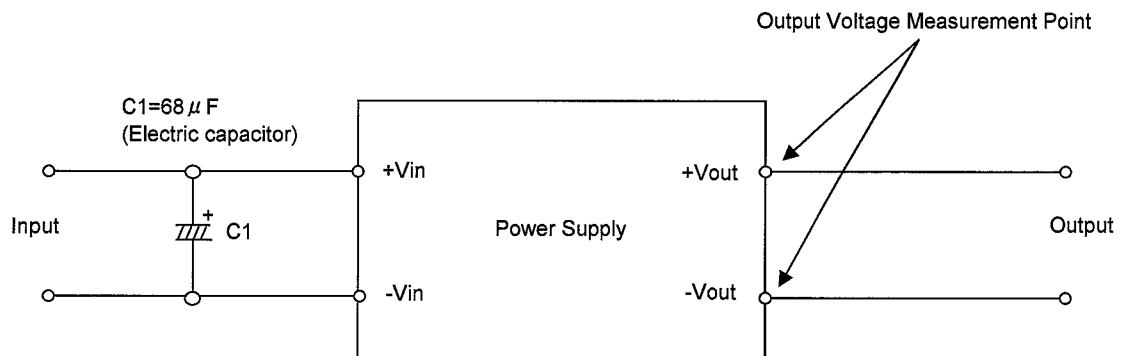


Figure B (General Electric Characteristic)

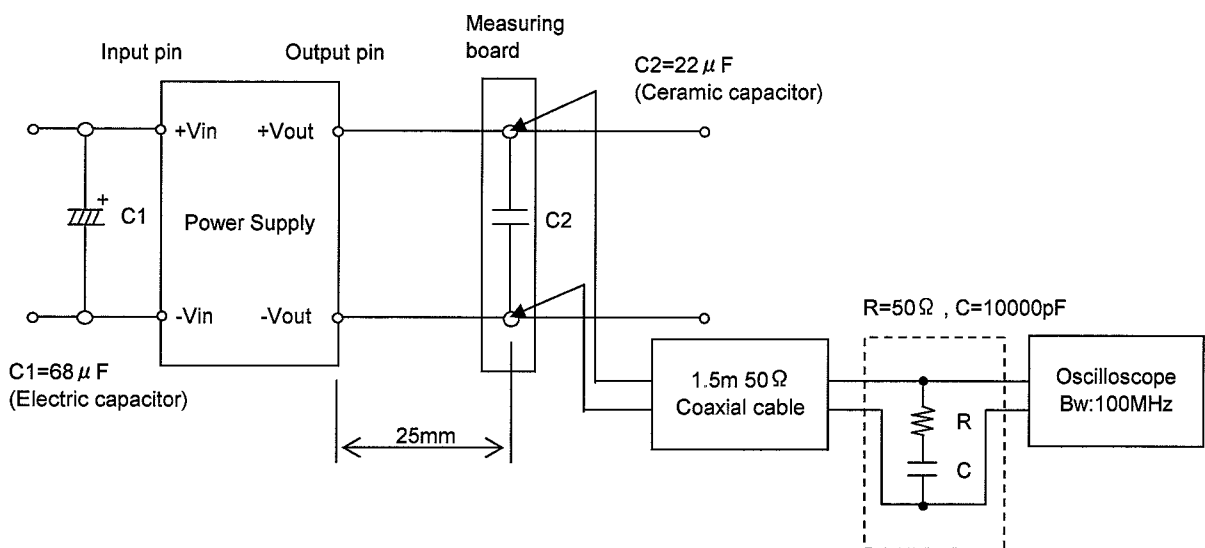


Figure C (Ripple and Ripple noise Characteristic)