

TEST DATA OF SFS104805

Regulated DC Power Supply
Jul.15. 2003

Approved by : Isao Yasuda Design Manager

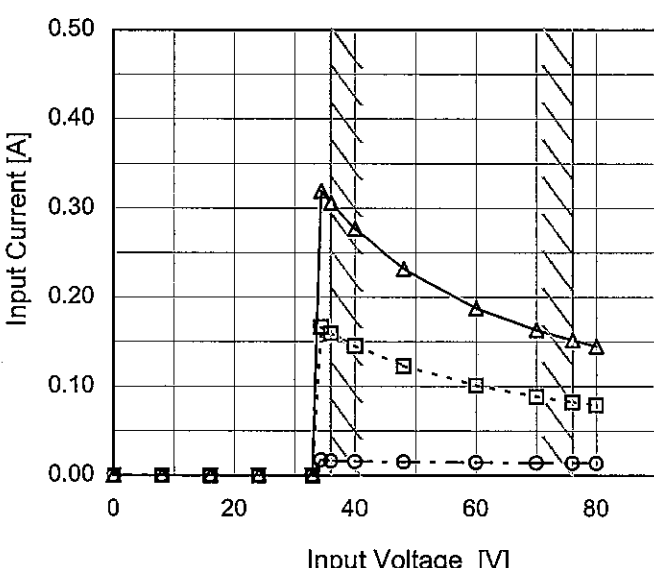
Prepared by : Toshiyuki Tsuru Design Engineer

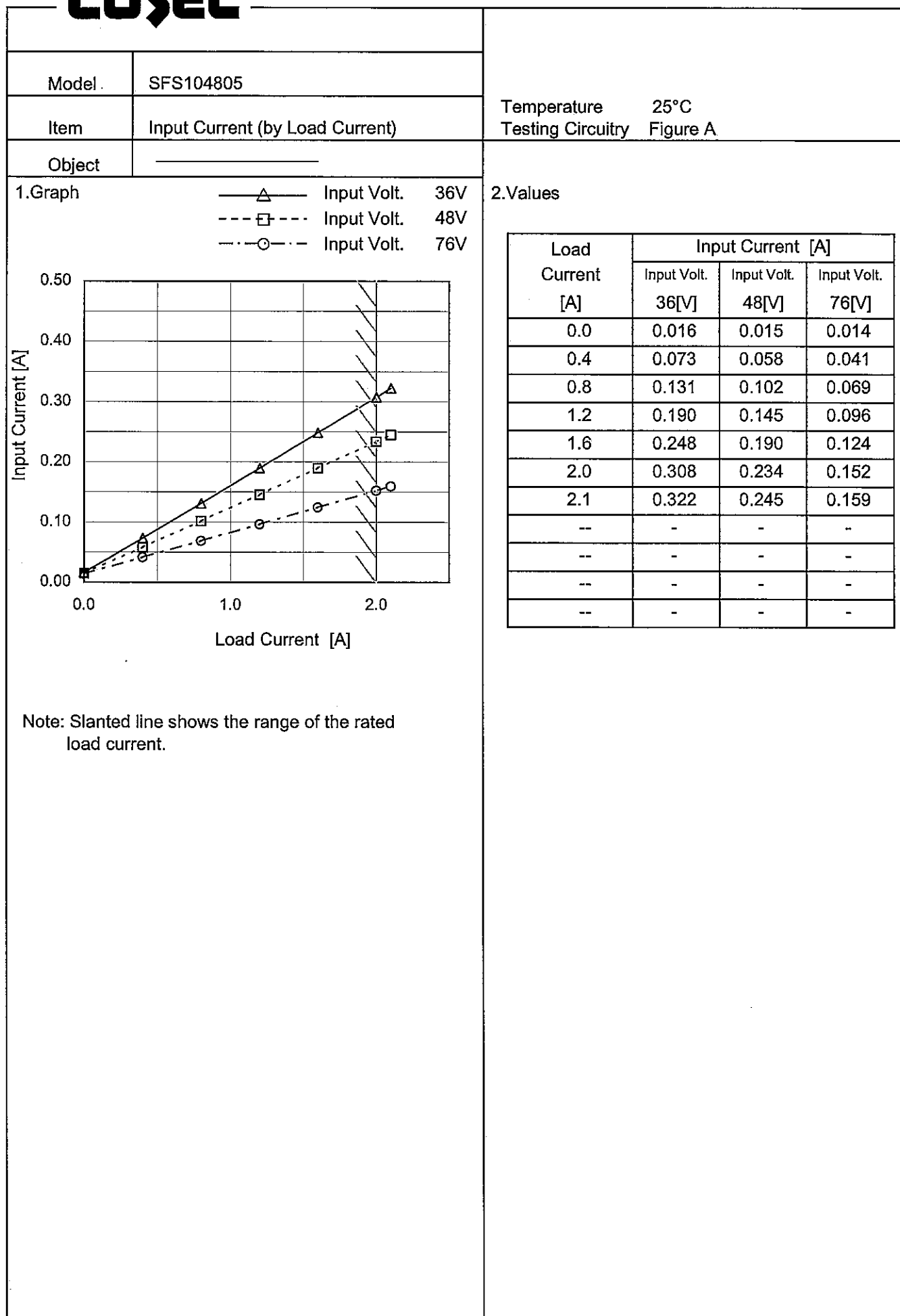
COSEL CO.,LTD.

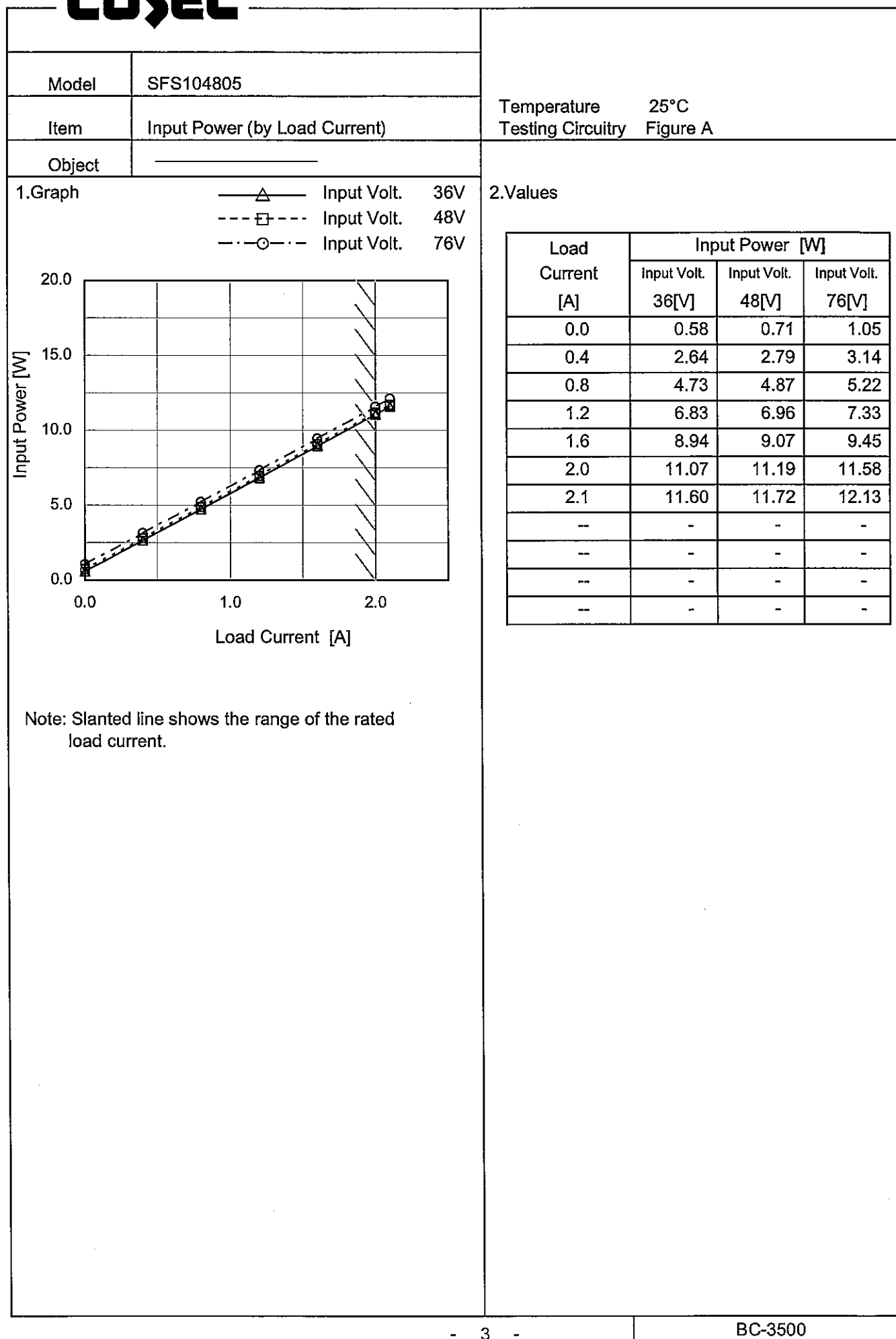
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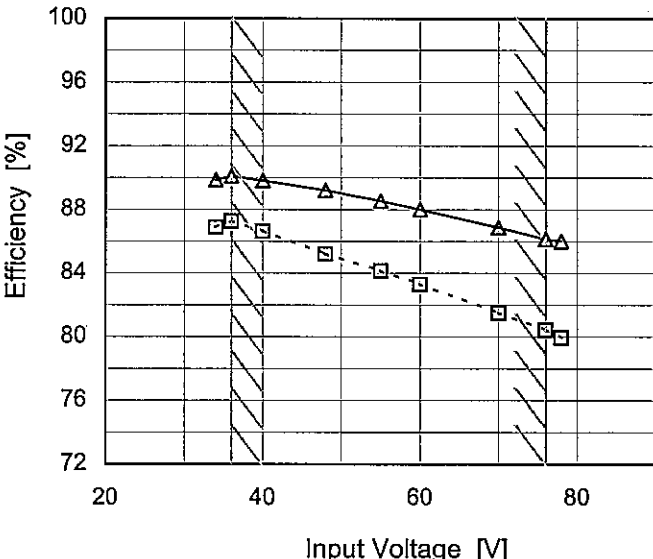
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Model		SFS104805																																																																								
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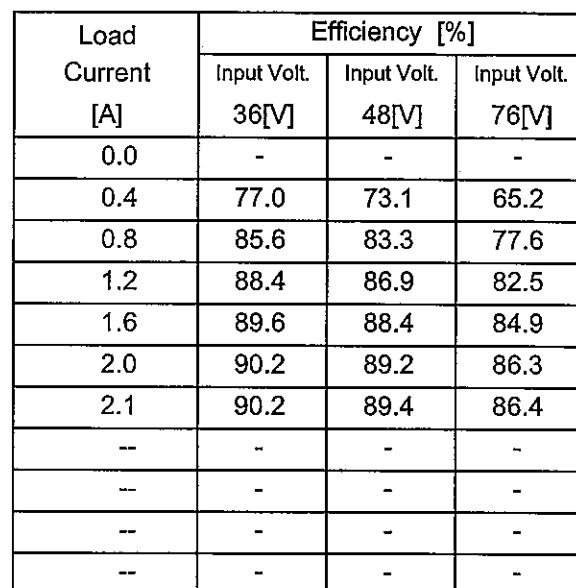




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Temperature 25°C
Testing Circuitry Figure A

2.Values



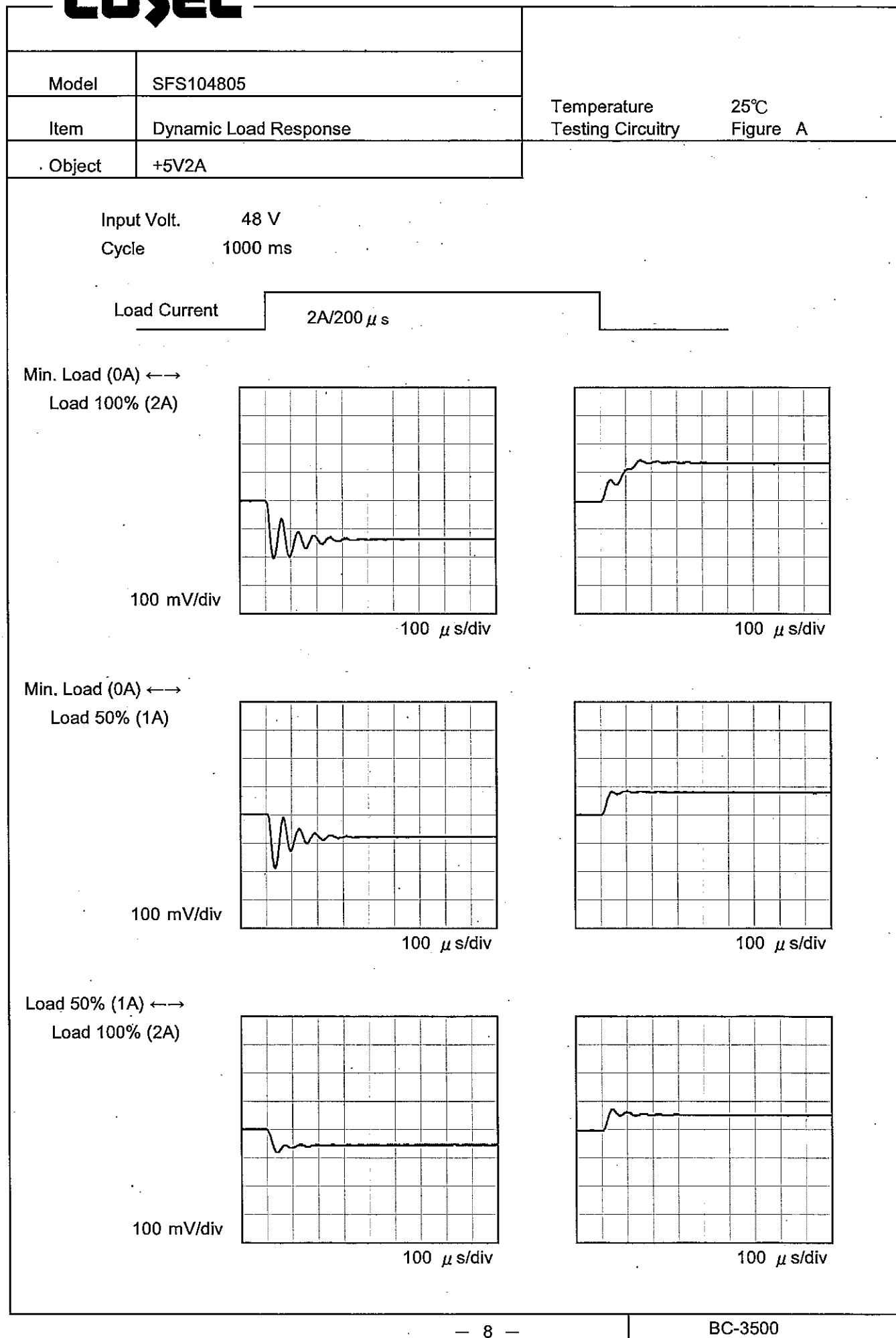
Note: Slanted line shows the range of the rated load current.

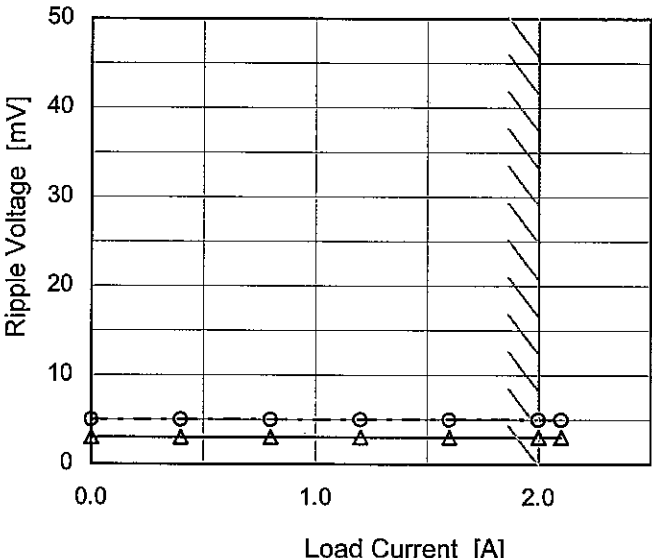
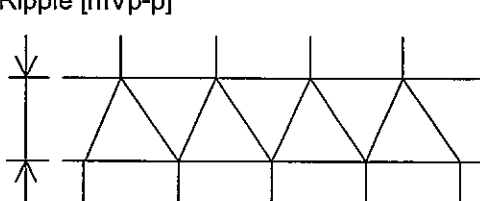
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Model	SFS104805																																
Item	Line Regulation	Temperature	25°C																														
Object	+5V2A	Testing Circuitry	Figure A																														
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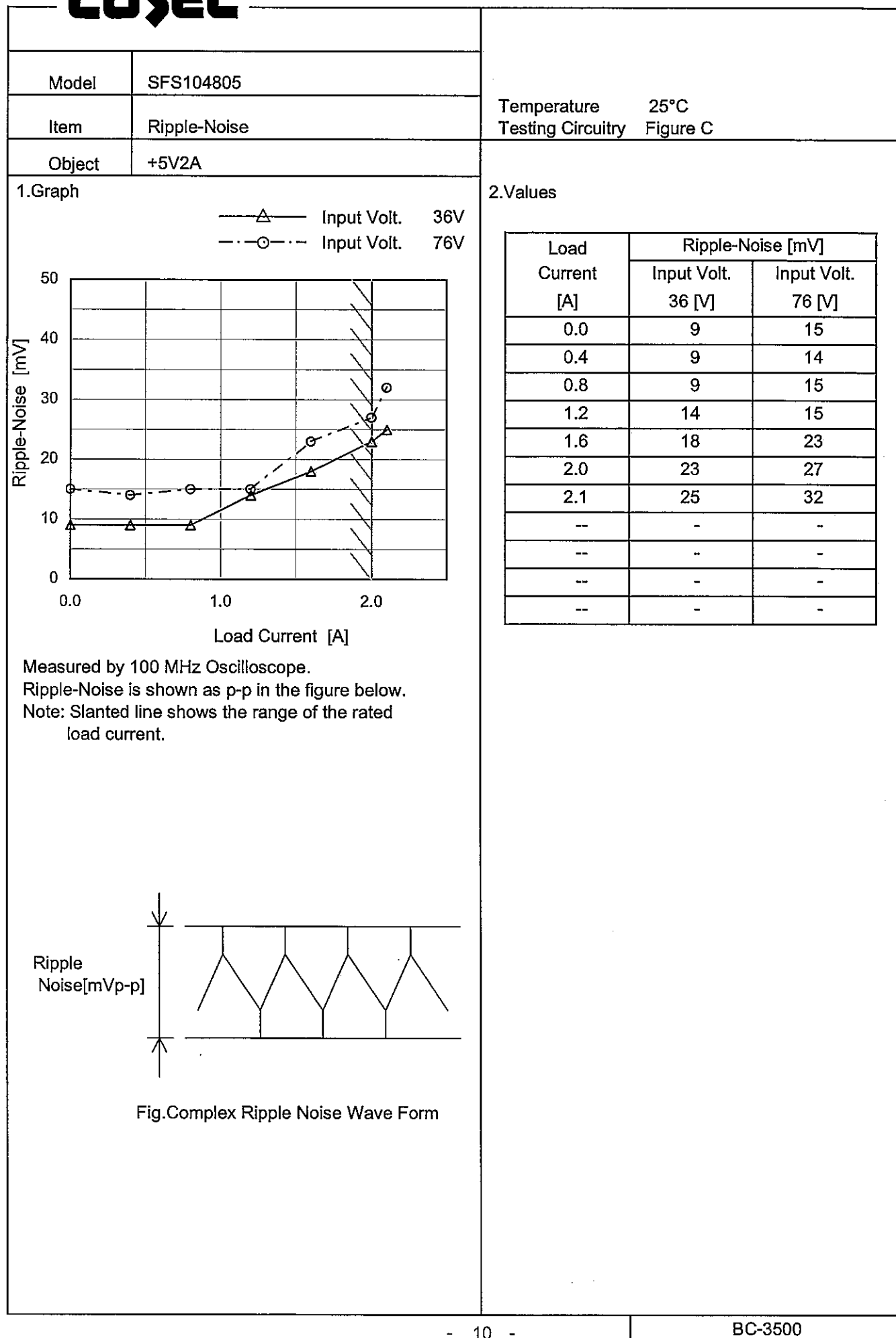
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<div>Measured by 100 MHz Oscilloscope.</div> <div>Ripple Voltage is shown as p-p in the figure below.</div> <div>Note: Slanted line shows the range of the rated load current.</div>																																									
<div><div>Ripple [mVp-p]</div></div> <div>Fig.Complex Ripple Wave Form</div>																																									

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Item		Ambient Temperature Drift																																																				
Object		+5V2A																																																				
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Note: Slanted line shows the range of the rated ambient temperature.

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		Testing Circuitry Figure A
Model	SFS104805	
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 - 85°C

Input Voltage : 36 - 76V

Load Current : 0 - 2A

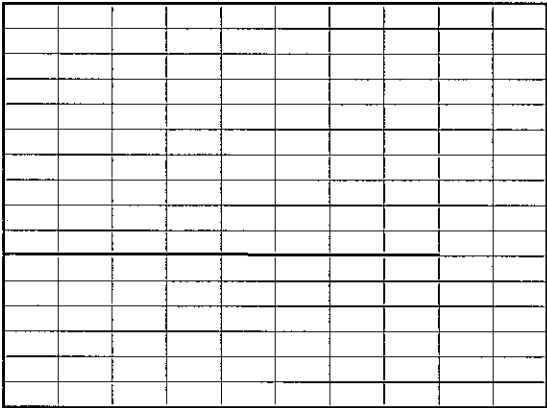
* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* 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	85	76	0	5.179	±106	±2.1
Minimum Voltage	-40	36	2	4.968		

COSEL

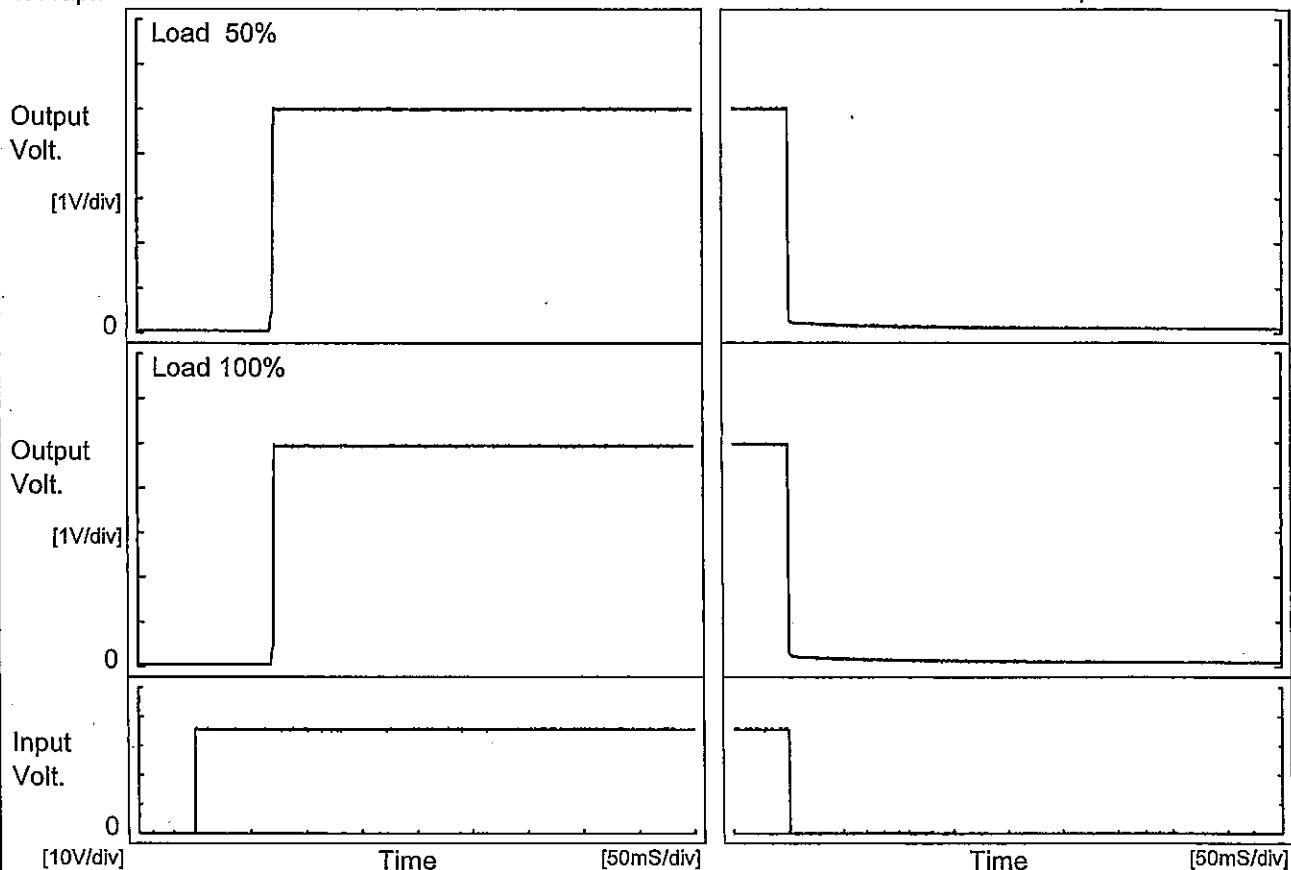
Model	SFS104805																								
Item	Time Lapse Drift	Temperature	25°C																						
Object	+5V2A	Testing Circuitry	Figure A																						
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<div><div><div>5.20</div><div>5.16</div><div>5.12</div><div>5.08</div><div>5.04</div><div>5.00</div><div>4.96</div><div>4.92</div><div>4.88</div></div><div></div><div><div>0</div><div>2</div><div>4</div><div>6</div><div>8</div><div>10</div></div><div><div>Time [H]</div><div>Input Volt. 48V</div><div>Load 100%</div></div></div>		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>4.999</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>5.001</td></tr><tr><td>5.0</td><td>5.001</td></tr><tr><td>6.0</td><td>5.001</td></tr><tr><td>7.0</td><td>5.001</td></tr><tr><td>8.0</td><td>5.001</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	4.999	0.5	5.002	1.0	5.002	2.0	5.002	3.0	5.002	4.0	5.001	5.0	5.001	6.0	5.001	7.0	5.001	8.0	5.001
Time since start [H]	Output Voltage [V]																								
0.0	4.999																								
0.5	5.002																								
1.0	5.002																								
2.0	5.002																								
3.0	5.002																								
4.0	5.001																								
5.0	5.001																								
6.0	5.001																								
7.0	5.001																								
8.0	5.001																								

COSEL

Model	SFS104805	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+5V2A		

1.Graph

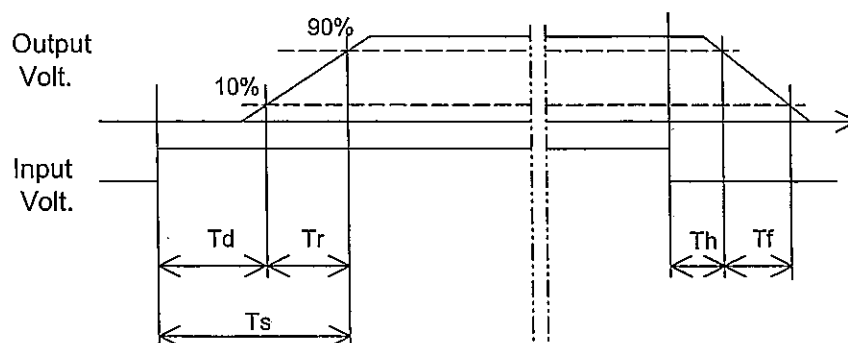
Input Volt. 36 V



2.Values

[mS]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	71.0	0.5	71.5	0.3	0.8
100 %	70.8	0.5	71.3	0.3	0.5



Model		SFS104805																																				
Item		Minimum Input Voltage for Regulated Output Voltage																																				
Object		+5V2A																																				
1.Graph																																						
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <table><thead><tr><th>Ambient Temperature [°C]</th><th>Load 50% [V]</th><th>Load 100% [V]</th></tr></thead><tbody><tr><td>-45</td><td>31.4</td><td>31.6</td></tr><tr><td>-40</td><td>31.5</td><td>31.6</td></tr><tr><td>-20</td><td>31.7</td><td>31.6</td></tr><tr><td>0</td><td>31.7</td><td>31.8</td></tr><tr><td>25</td><td>31.9</td><td>31.8</td></tr><tr><td>50</td><td>31.9</td><td>32.0</td></tr><tr><td>85</td><td>32.1</td><td>32.0</td></tr><tr><td>90</td><td>32.1</td><td>32.0</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>			Ambient Temperature [°C]	Load 50% [V]	Load 100% [V]	-45	31.4	31.6	-40	31.5	31.6	-20	31.7	31.6	0	31.7	31.8	25	31.9	31.8	50	31.9	32.0	85	32.1	32.0	90	32.1	32.0	--	-	-	--	-	-	--	-	-
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- 16 -

BC-3500

Temperature 25°C
Testing Circuitry Figure A

[illegible]

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

When output voltage fell to less than 4.5V ,the unit shuts off the output by operating low voltage protection.

Model		SFS104805																																																				
Item		Overvoltage Protection																																																				
Object		+5V2A																																																				
1.Graph		Testing Circuitry Figure A																																																				
<div><div>—△— Input Volt. 48V</div><div><p>Operating Point [V]</p><p>Ambient Temperature [°C]</p><p>Load 0%</p></div></div> <div>Note: Slanted line shows the range of the rated ambient temperature.</div>		2.Values																																																				
		<table><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. -[V]</th><th>Input Volt. -[V]</th></tr><tr><td>-40</td><td>6.57</td><td>-</td><td>-</td></tr><tr><td>25</td><td>6.48</td><td>-</td><td>-</td></tr><tr><td>85</td><td>6.45</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></table>		Ambient Temperature [°C]	Operating Point [V]			Input Volt. 48[V]	Input Volt. -[V]	Input Volt. -[V]	-40	6.57	-	-	25	6.48	-	-	85	6.45	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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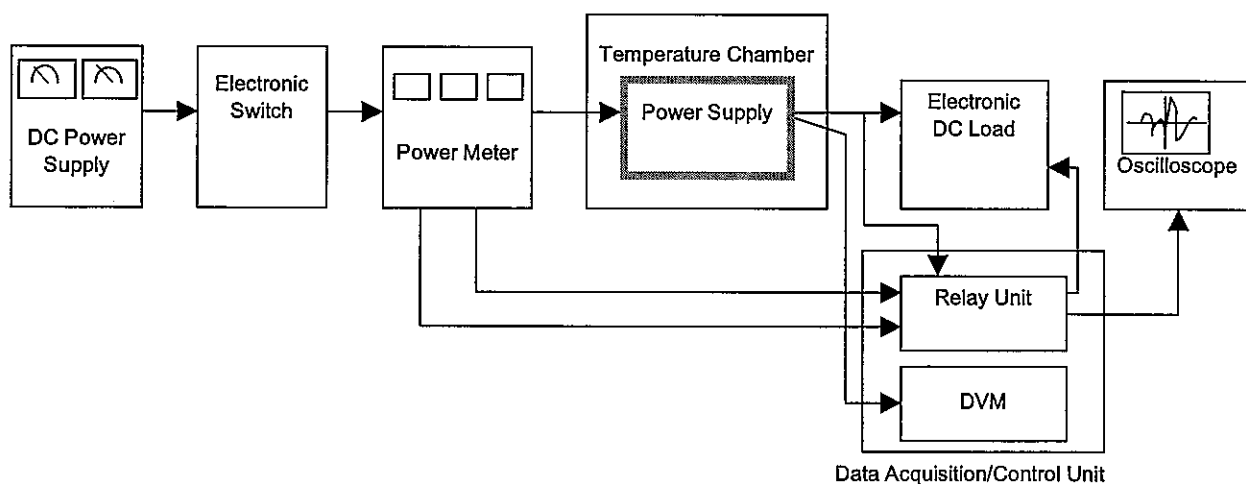


Figure A

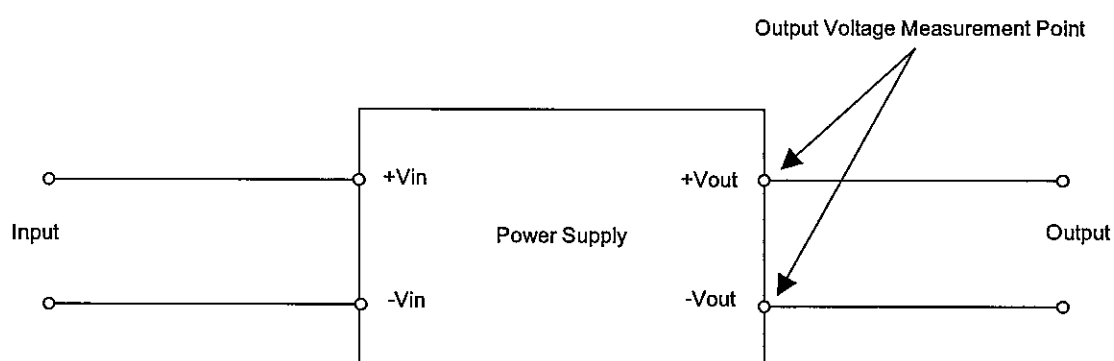


Figure B (General Electric Characteristic)

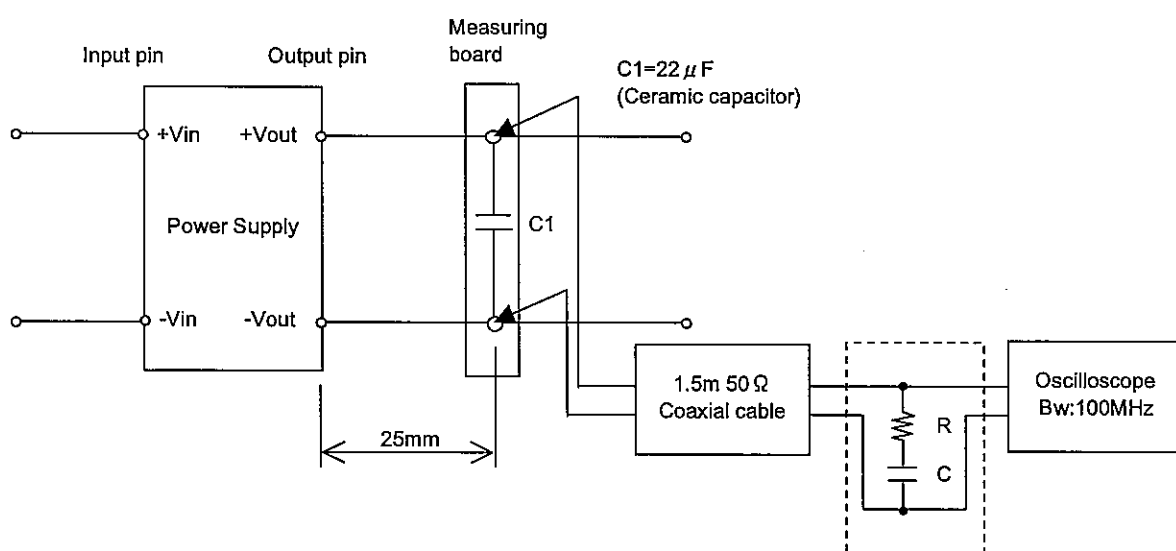


Figure C (Ripple and Ripple noise Characteristic)