

TEST DATA OF SFS10481R8

Regulated DC Power Supply
Nov.4. 2003

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Isao Yasuda Design Manager

Prepared by : Kenichi Tsukada
Kenichi Tsukada Design Engineer

COSEL CO.,LTD.

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Model	SFS10481R8	Temperature	25°C																																																																							
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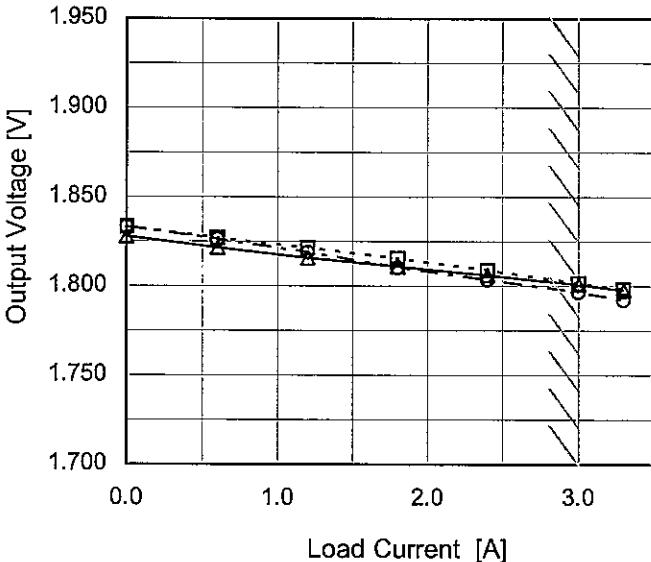
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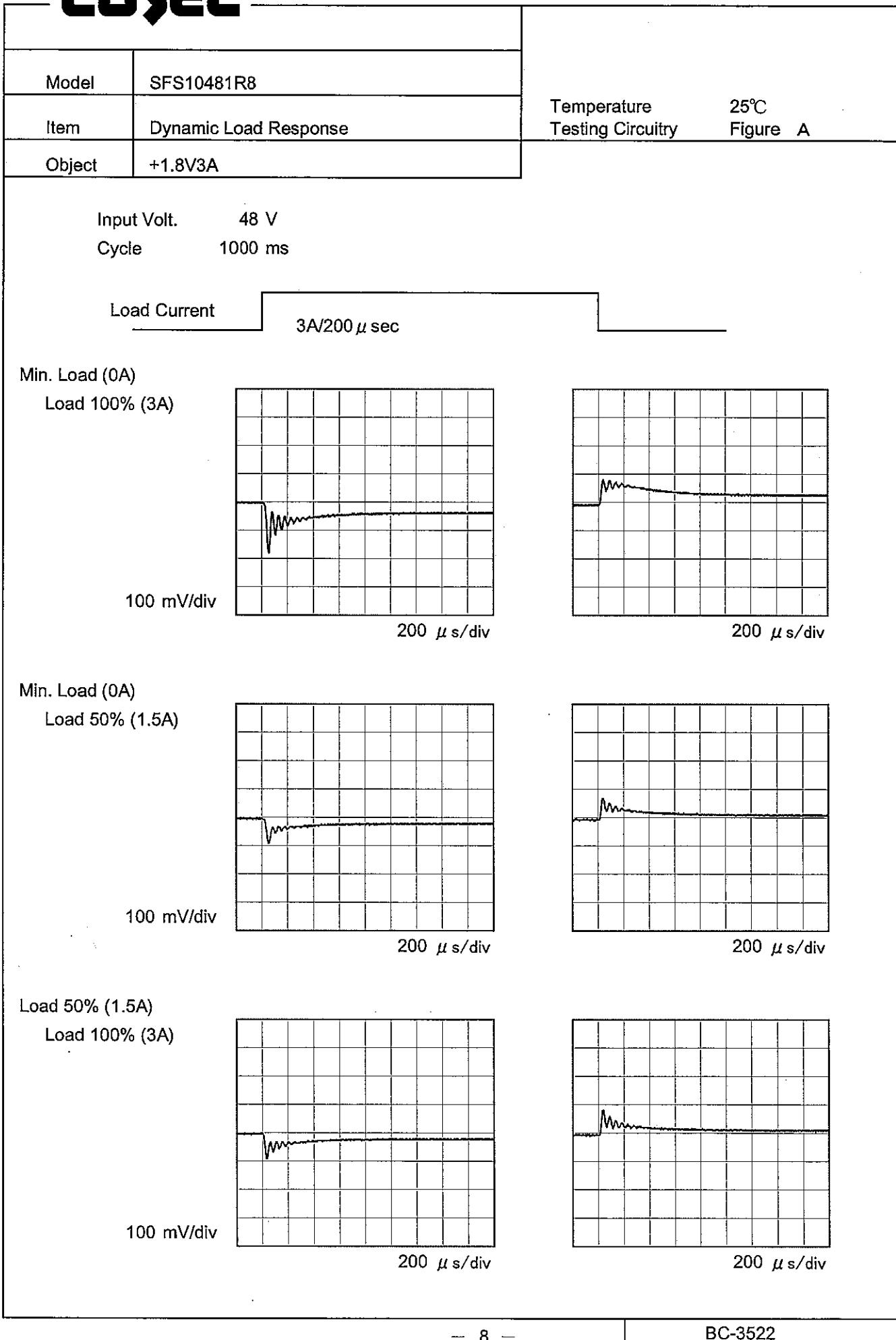
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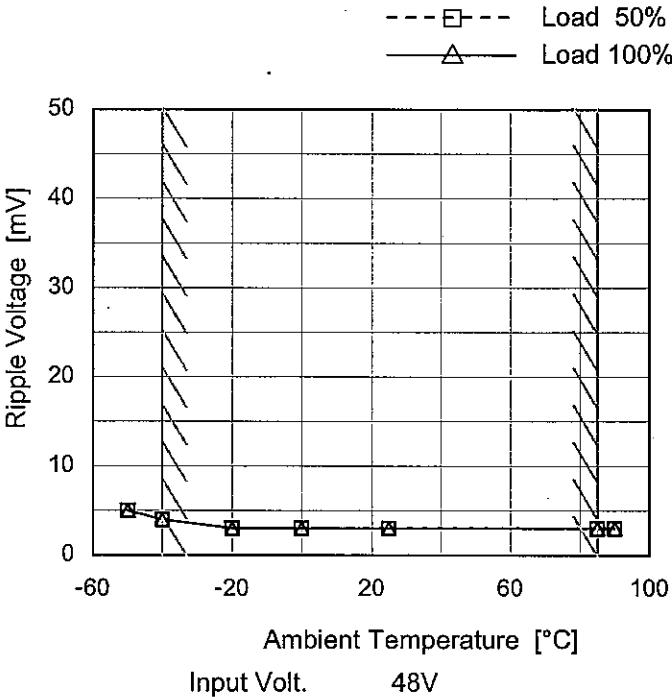
COSEL

COSEL

Model	SFS10481R8																																							
Item	Ripple Voltage (by Load Current)	Temperature 25°C Testing Circuitry Figure C																																						
Object	+1.8V3A																																							
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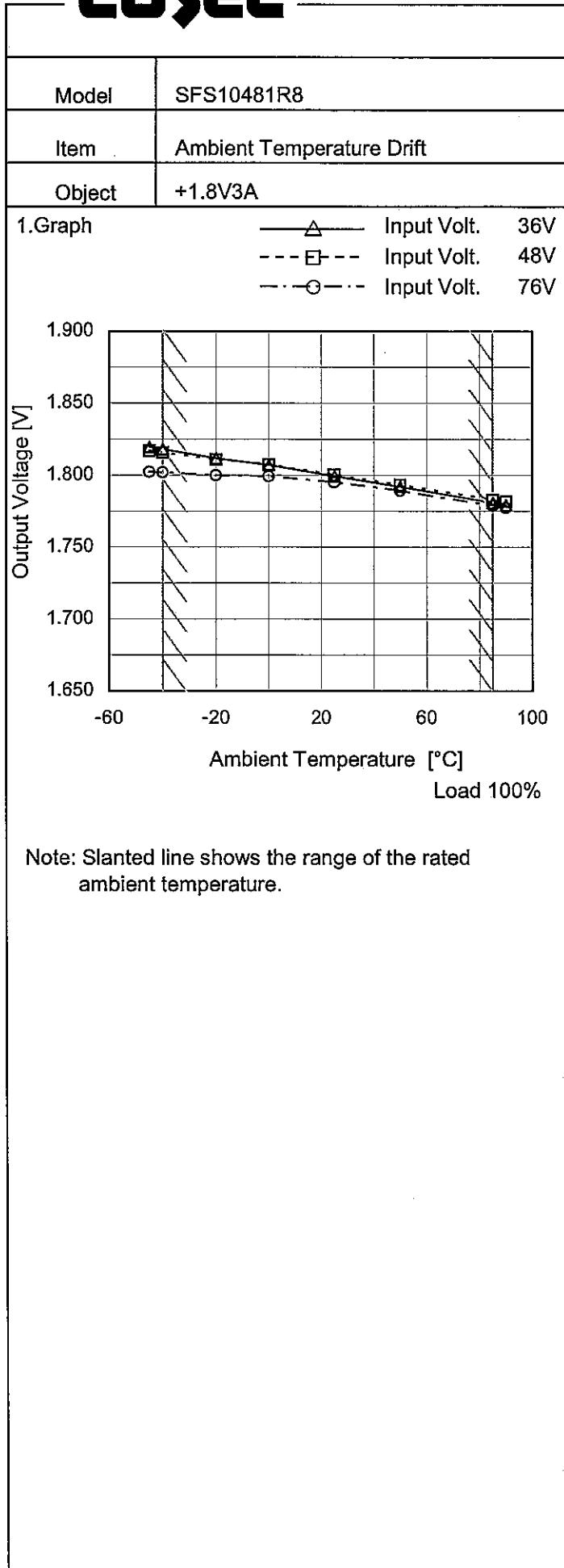
COSEL

Model	SFS10481R8																																							
Item	Ripple-Noise	Temperature 25°C Testing Circuitry Figure C																																						
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Model SFS10481R8 Item Ripple Voltage (by Ambient Temp.) Object +1.8V3A	Testing Circuitry Figure C																																						
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Measured by 100 MHz Oscilloscope.

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



Testing Circuitry Figure A

2. Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
-45	1.820	1.817	1.802
-40	1.818	1.816	1.802
-20	1.812	1.811	1.800
0	1.807	1.808	1.799
25	1.800	1.800	1.795
50	1.792	1.793	1.789
85	1.781	1.783	1.779
90	1.779	1.782	1.777
--	-	-	-
--	-	-	-
--	-	-	-



Model	SFS10481R8	Testing Circuitry Figure A
Item	Output Voltage Accuracy	
Object	+1.8V3A	

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 - 3A

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

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

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	85	76	0	1.836	±29	±1.6
Minimum Voltage	85	76	3	1.778		

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Model	SFS10481R8
Item	Time Lapse Drift
Object	+1.8V3A

1.Graph

Time since start [H]	Output Voltage [V]
0.0	1.803
0.5	1.801
1.0	1.801
2.0	1.801
3.0	1.801
4.0	1.801
5.0	1.801
6.0	1.801
7.0	1.801
8.0	1.801

Input Volt. 48V
Load 100%

Temperature 25°C
Testing Circuitry Figure A

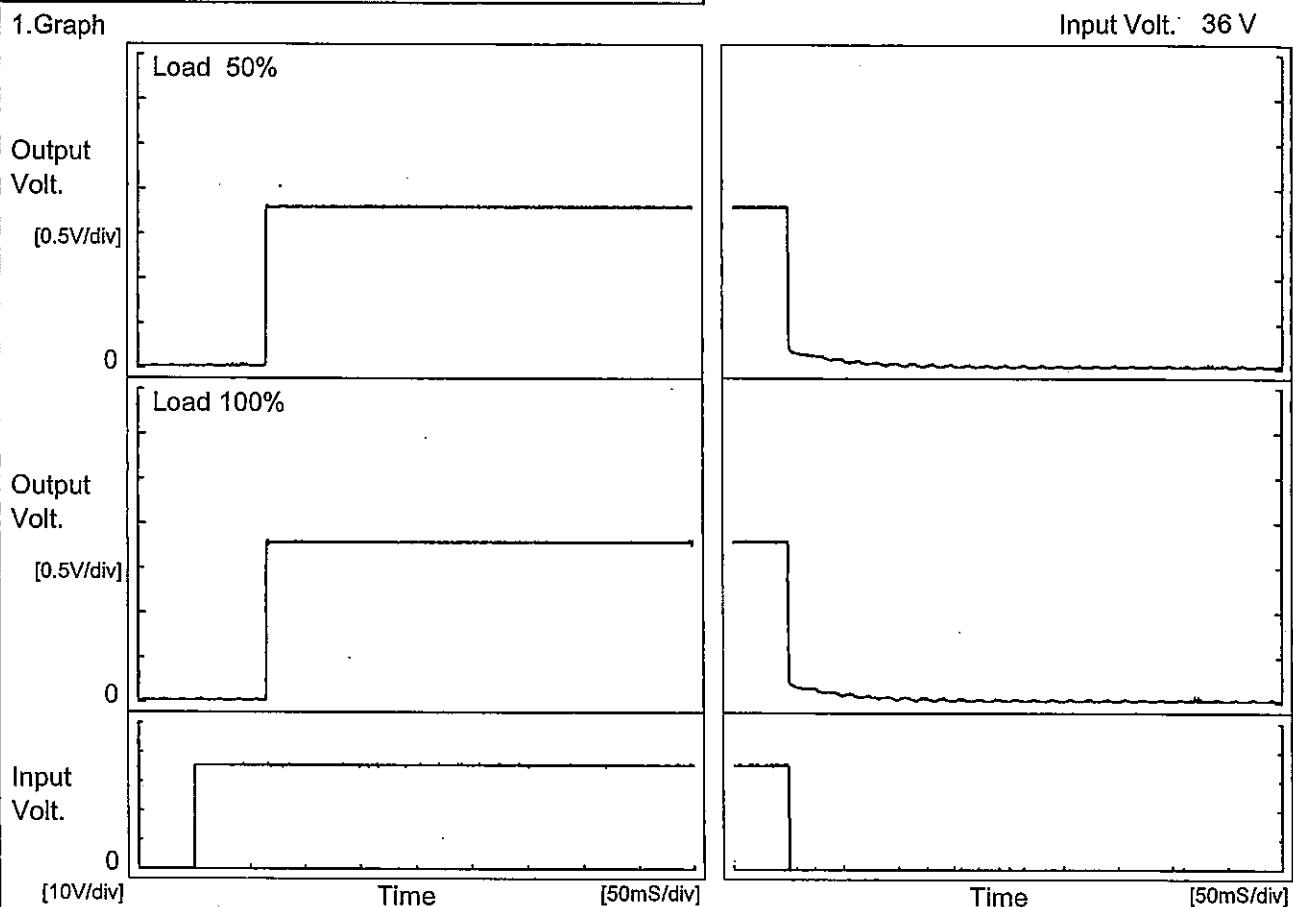
2.Values

Time since start [H]	Output Voltage [V]
0.0	1.803
0.5	1.801
1.0	1.801
2.0	1.801
3.0	1.801
4.0	1.801
5.0	1.801
6.0	1.801
7.0	1.801
8.0	1.801

Model	SFS10481R8
Item	Rise and Fall Time
Object	+1.8V3A

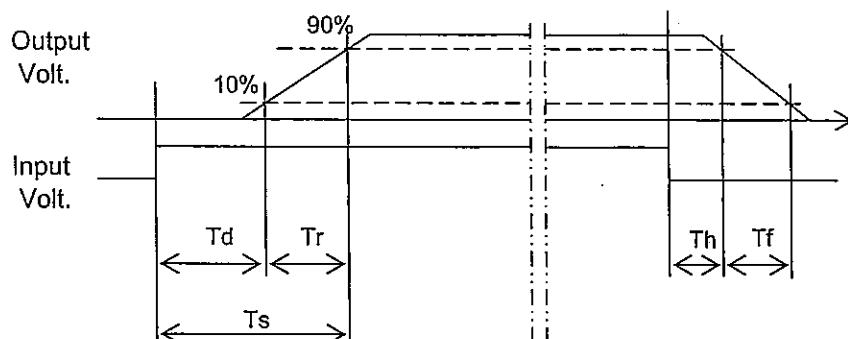
Temperature 25°C
Testing Circuitry Figure A

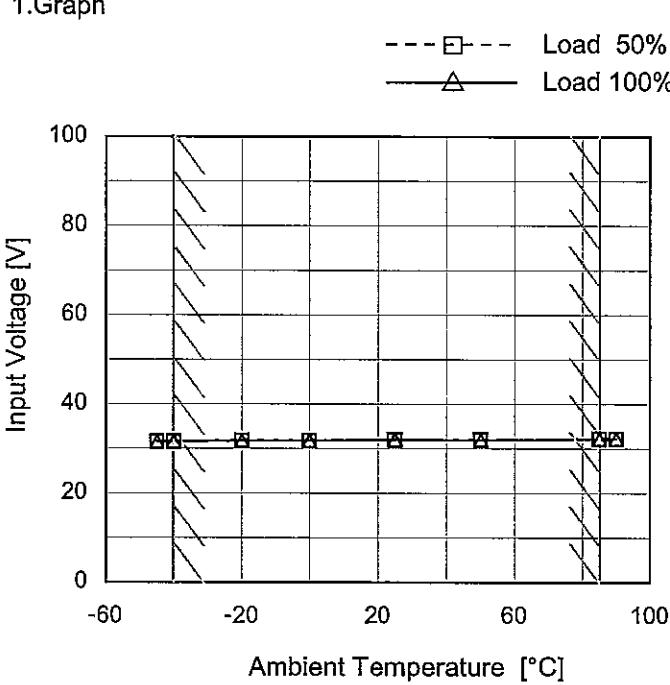
1. Graph



2. Values

Load	Time	Td	Tr	Ts	Th	Tf
50 %		64.8	0.7	65.5	0.3	2.5
100 %		64.5	0.8	65.3	0.3	3.3



Model SFS10481R8 Item Minimum Input Voltage for Regulated Output Voltage Object +1.8V3A	Testing Circuitry Figure A																																						
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1.Graph  <p>Note: Slanted line shows the range of the rated ambient temperature.</p>																																							

Model	SFS10481R8
Item	Overcurrent Protection
Object	+1.8V3A

1. Graph

Output Voltage [V]

Load Current [A]

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

When the output voltage fell to less than 1.62V, the unit shuts off the output by operating low voltage protection.

Temperature	25°C
Testing Circuitry	Figure A

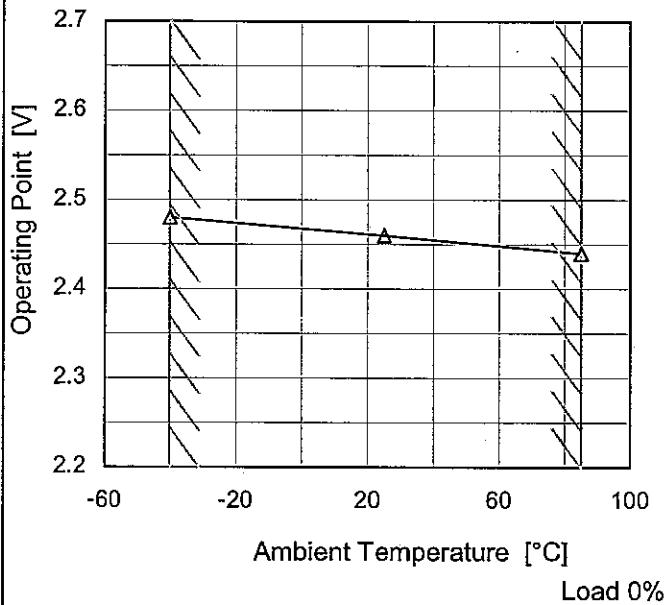
2. Values

Output Voltage [V]	Load Current [A]		
	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
1.80	3.11	3.11	3.02
1.71	3.35	3.41	3.55
1.62	3.37	3.43	3.58
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

Model	SFS10481R8
Item	Overvoltage Protection
Object	+1.8V3A

1. Graph

—▲— Input Volt. 48V



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

Testing Circuitry Figure A

2. Values

Ambient Temperature [°C]	Operating Point [V]		
	Input Volt. 48[V]	Input Volt.	Input Volt.
-40	2.48	-	-
25	2.46	-	-
85	2.44	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-
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--	-	-	-
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--	-	-	-

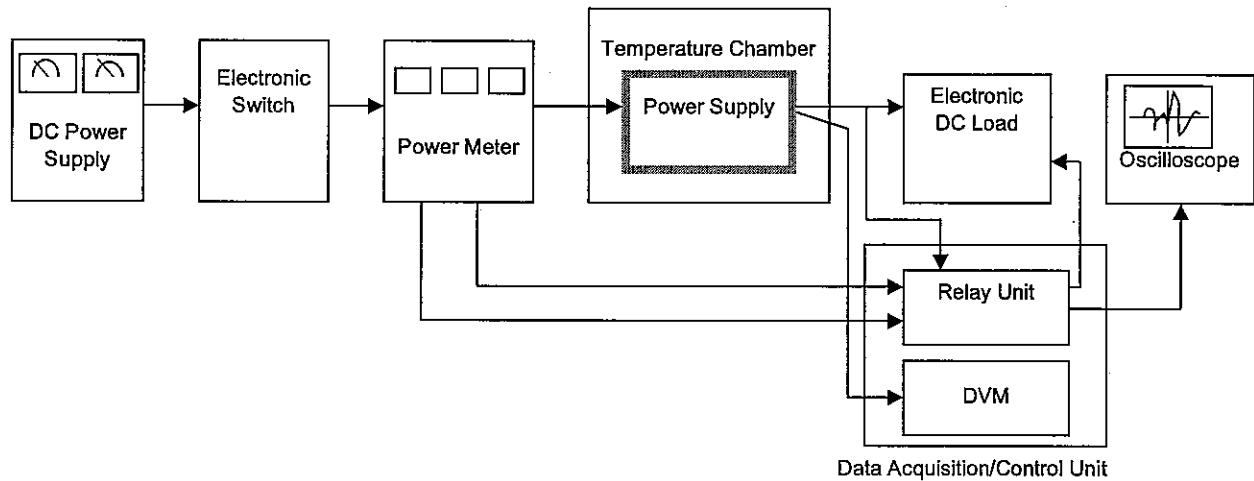


Figure A

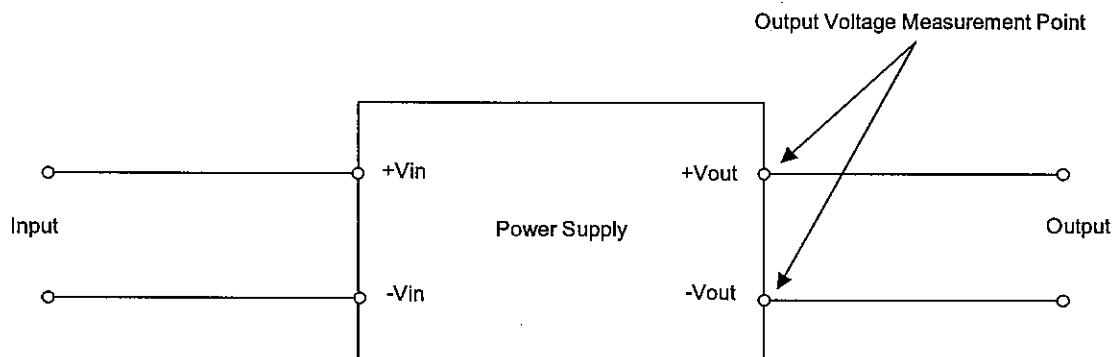


Figure B (General Electric Characteristic)

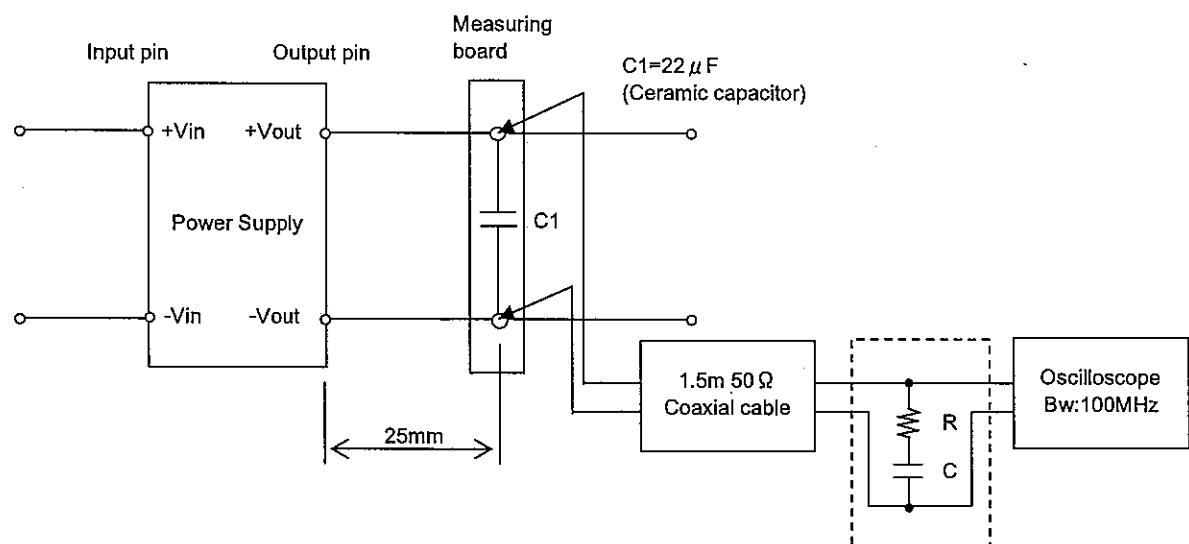


Figure C (Ripple and Ripple noise Characteristic)