



# TEST DATA OF MHFW34815

Regulated DC Power Supply  
July 2, 2020

Approved by : Kenichi Tsukada  
Kenichi Tsukada Design Manager

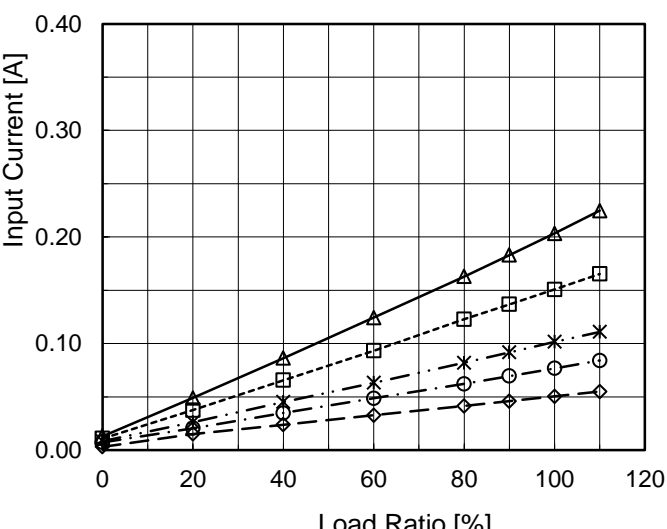
Prepared by : Yoshihiko Saeki  
Yoshihiko Saeki Design Engineer

**COSEL CO.,LTD.**

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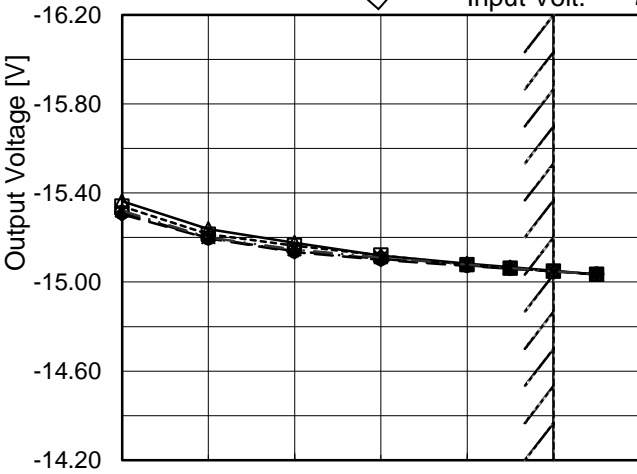
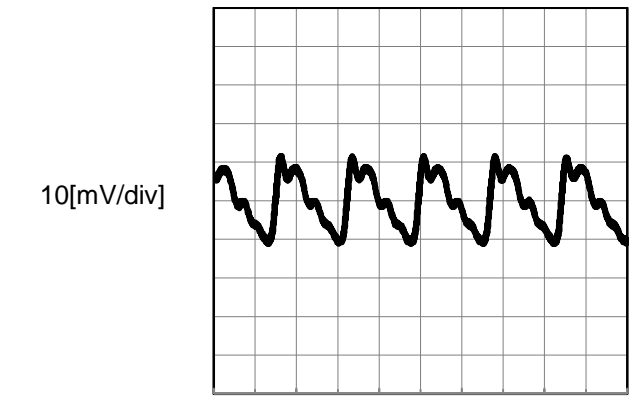
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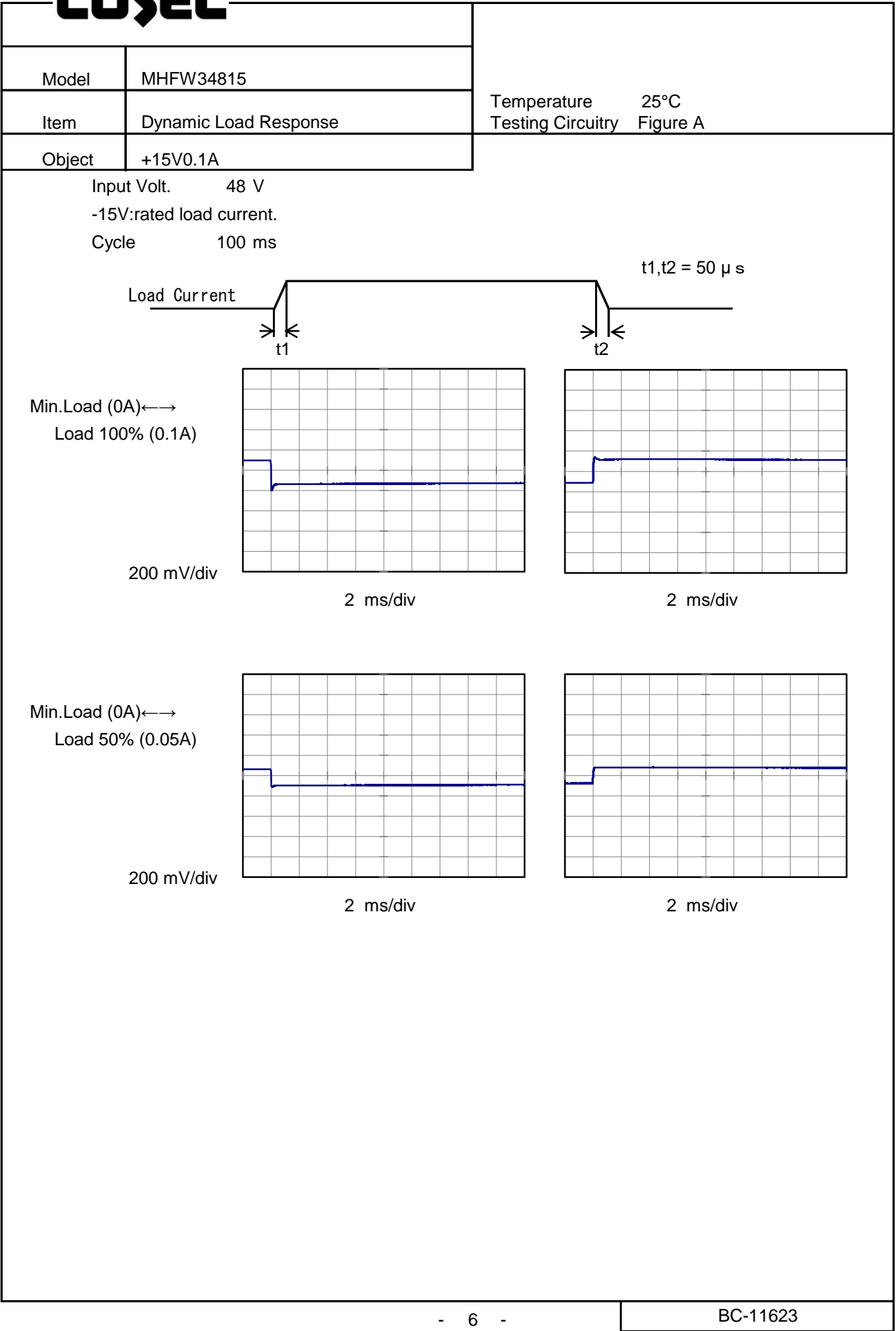


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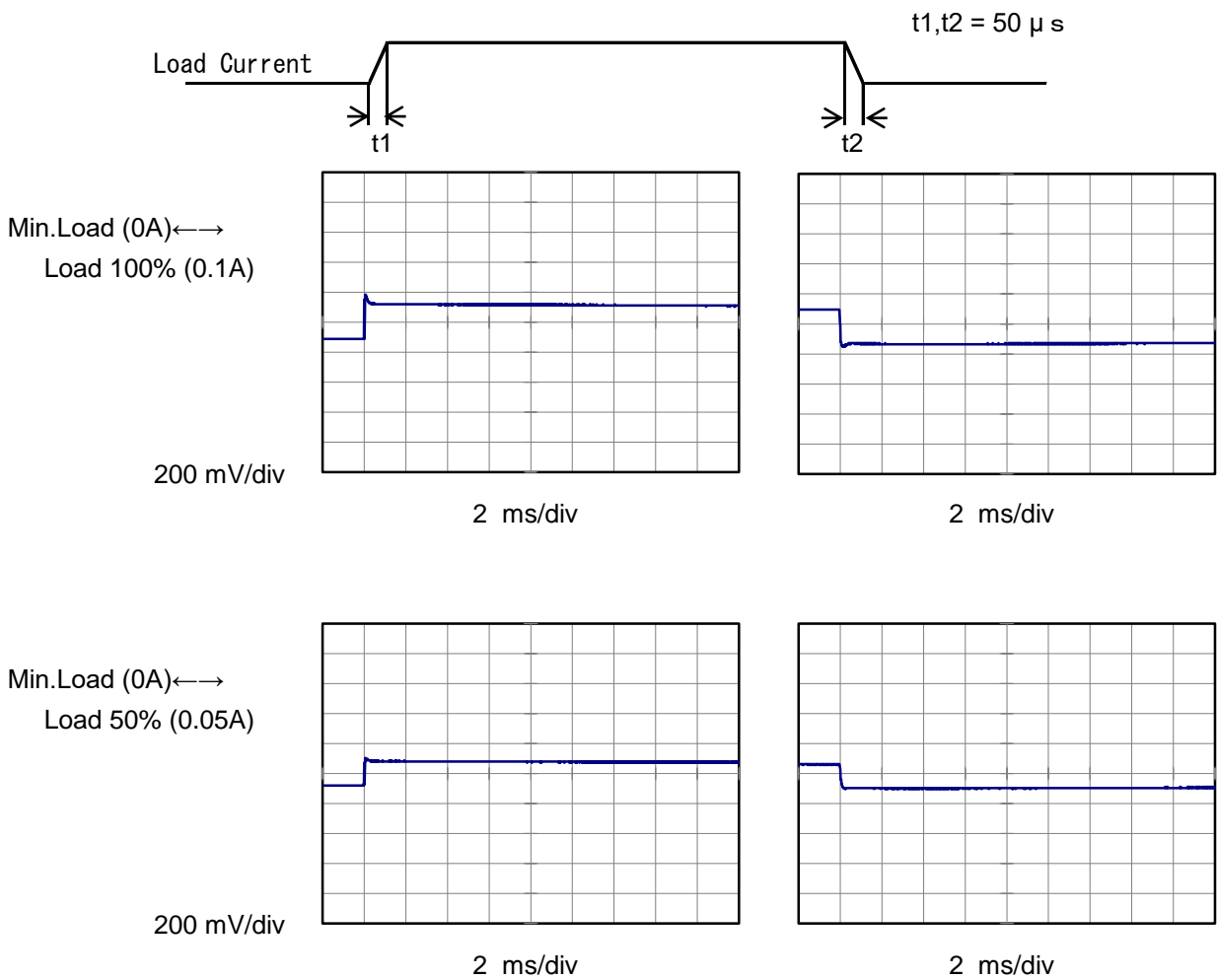






Model	MHFW34815		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	-15V0.1A		

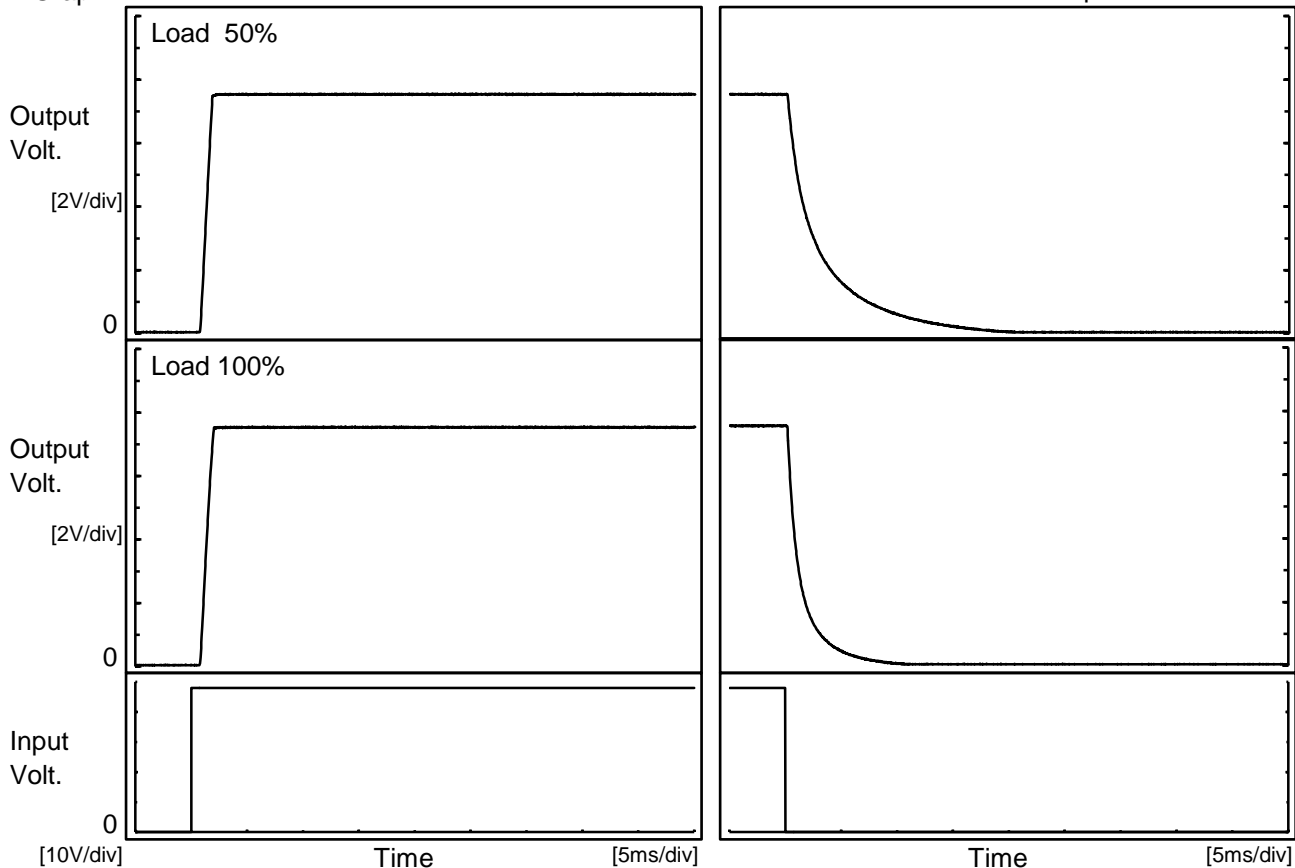
Input Volt.      48 V  
+15V:rated load current.  
Cycle            100 ms





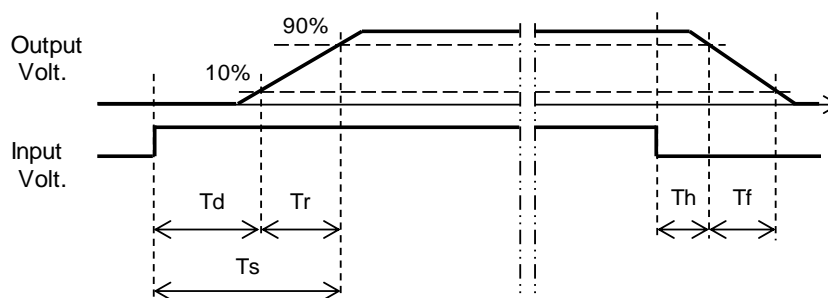
Model	MHFW34815	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+15V0.1A		

# 1.Graph



# 2.Values

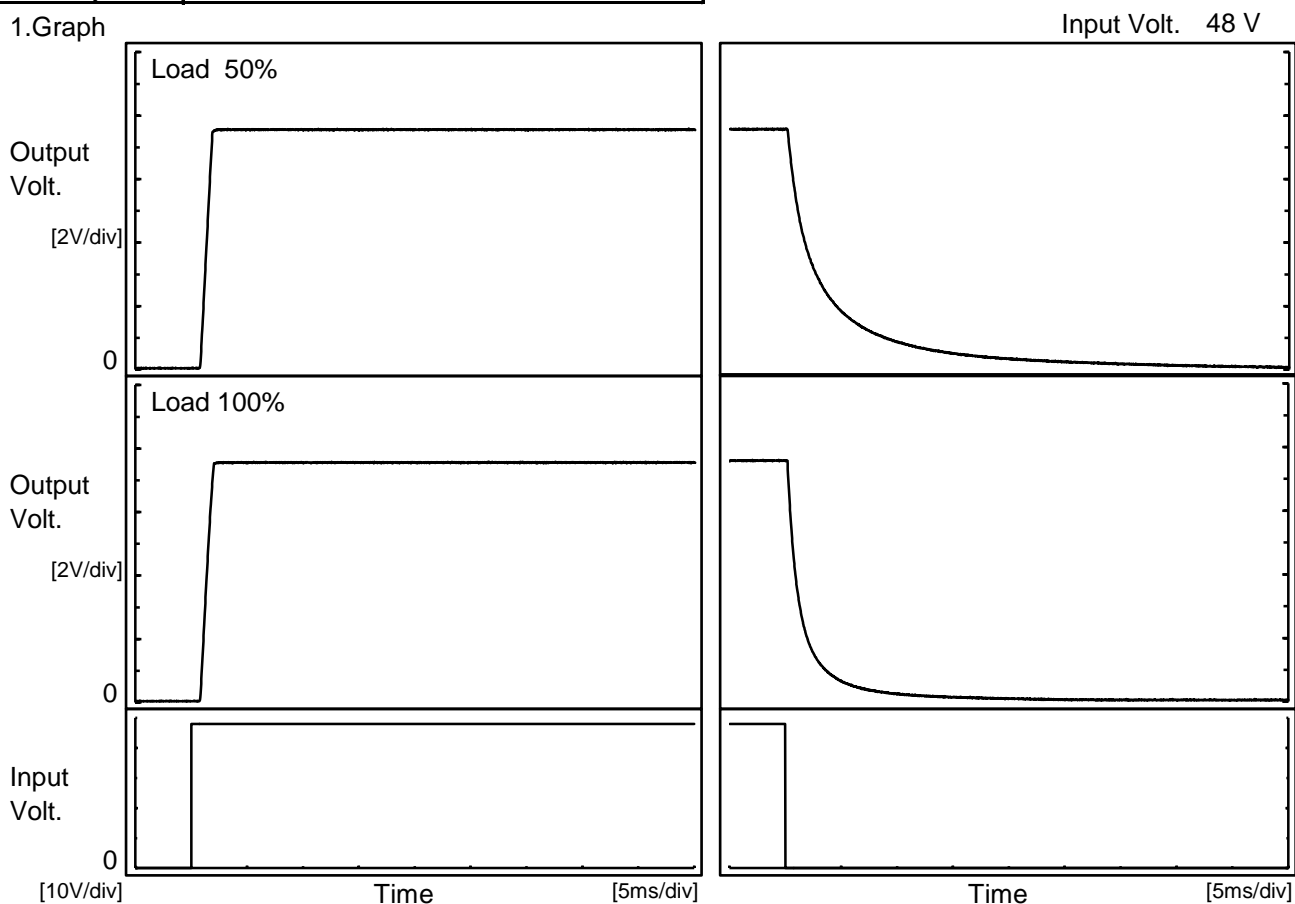
Load	Time	Td	Tr	Ts	Th	Tf
50 %		0.9	0.9	1.8	0.4	8.2
100 %		0.9	1.0	1.9	0.3	3.4





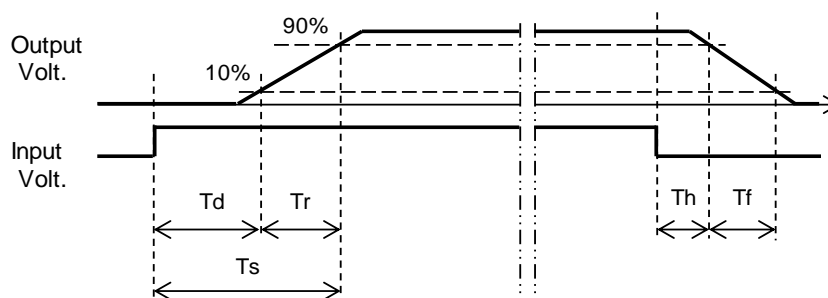
Model	MHFW34815	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	-15V0.1A		

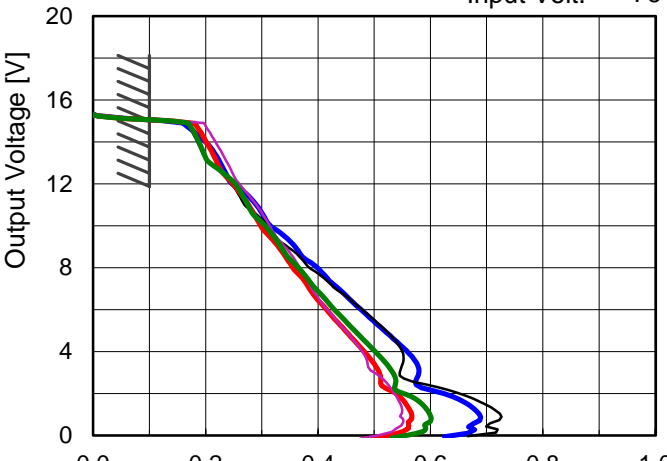
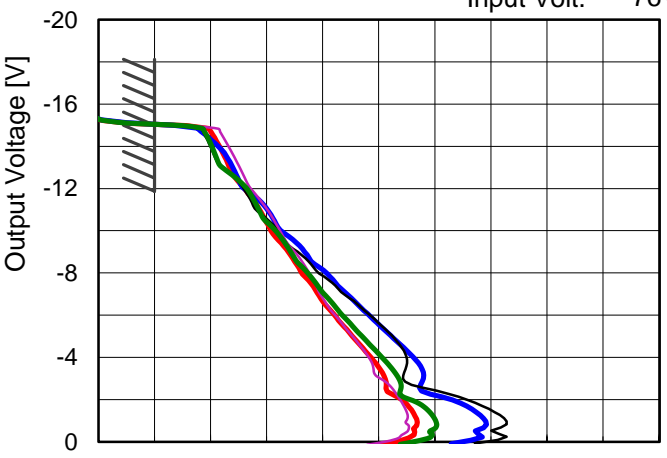
# 1.Graph



# 2.Values

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	0.9	0.9	1.8	0.4	10.5
100 %	0.9	1.0	1.9	0.3	4.0



Model		MHFW34815	Temperature 25°C																																																																																		
Item		Overcurrent Protection	Testing Circuitry Figure A																																																																																		
Object		+15V0.1A	2.Values																																																																																		
1.Graph		<div><div></div>Input Volt. 18V</div> <div><div></div>Input Volt. 24V</div> <div><div></div>Input Volt. 36V</div> <div><div></div>Input Volt. 48V</div> <div><div></div>Input Volt. 76V</div>  <table><thead><tr><th rowspan="2">Output Voltage [V]</th><th colspan="5">Load Current [A]</th></tr><tr><th>Input Volt. 18[V]</th><th>Input Volt. 24[V]</th><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr></thead><tbody><tr><td>14.3</td><td>0.182</td><td>0.186</td><td>0.182</td><td>0.195</td><td>0.211</td></tr><tr><td>13.5</td><td>0.192</td><td>0.213</td><td>0.195</td><td>0.210</td><td>0.227</td></tr><tr><td>12.0</td><td>0.243</td><td>0.242</td><td>0.248</td><td>0.244</td><td>0.256</td></tr><tr><td>10.5</td><td>0.290</td><td>0.302</td><td>0.285</td><td>0.287</td><td>0.302</td></tr><tr><td>9.0</td><td>0.341</td><td>0.356</td><td>0.332</td><td>0.328</td><td>0.339</td></tr><tr><td>7.5</td><td>0.411</td><td>0.416</td><td>0.377</td><td>0.369</td><td>0.377</td></tr><tr><td>6.0</td><td>0.476</td><td>0.474</td><td>0.428</td><td>0.415</td><td>0.416</td></tr><tr><td>4.5</td><td>0.535</td><td>0.534</td><td>0.481</td><td>0.464</td><td>0.463</td></tr><tr><td>3.0</td><td>0.547</td><td>0.580</td><td>0.530</td><td>0.507</td><td>0.493</td></tr><tr><td>1.5</td><td>0.688</td><td>0.661</td><td>0.584</td><td>0.556</td><td>0.546</td></tr><tr><td>0.0</td><td>0.667</td><td>0.625</td><td>0.532</td><td>0.493</td><td>0.475</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr></tbody></table> <div>-15V:Rated Load Current</div>			Output Voltage [V]	Load Current [A]					Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	14.3	0.182	0.186	0.182	0.195	0.211	13.5	0.192	0.213	0.195	0.210	0.227	12.0	0.243	0.242	0.248	0.244	0.256	10.5	0.290	0.302	0.285	0.287	0.302	9.0	0.341	0.356	0.332	0.328	0.339	7.5	0.411	0.416	0.377	0.369	0.377	6.0	0.476	0.474	0.428	0.415	0.416	4.5	0.535	0.534	0.481	0.464	0.463	3.0	0.547	0.580	0.530	0.507	0.493	1.5	0.688	0.661	0.584	0.556	0.546	0.0	0.667	0.625	0.532	0.493	0.475	--	-	-	-
Output Voltage [V]	Load Current [A]																																																																																				
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Output Voltage [V]	Load Current [A]																																																																																				
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Note: Slanted line shows the range of the rated load current.

- 10 -

BC-11623

**COSEL**

		Testing Circuitry Figure A
Model	MHFW34815	
Item	Ambient Temperature Drift	
Object	+15V0.1A	

## 1.Values

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	14.931	14.934	14.934	14.935	14.937
25	15.039	15.040	15.041	15.041	15.043
70	15.058	15.059	15.059	15.059	15.060

-15V:Rated Load Current

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+15V0.1A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	14.3	14.4
25	14.1	14.2
70	13.9	14.0

# COSEL

		Testing Circuitry Figure A
Model	MHFW34815	
Item	Ambient Temperature Drift	
Object	-15V0.1A	

## 1.Values

Ambient Temperature[°C]	Output Voltage [V]				
	Input Volt. 18V	Input Volt. 24V	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	-14.937	-14.937	-14.937	-14.938	-14.939
25	-15.050	-15.049	-15.047	-15.048	-15.048
70	-15.070	-15.068	-15.066	-15.066	-15.066

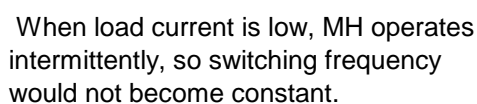
+15V:Rated Load Current

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-15V0.1A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	14.3	14.4
25	14.1	14.2
70	13.9	14.0

Temperature	25°C
Testing Circuitry	Figure A



Load Current [A]	Switching Frequency [kHz]				
	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]
0.00	624	714	831	900	925
0.02	540	645	772	849	922
0.04	449	537	653	744	829
0.06	386	487	613	691	773
0.08	339	416	556	640	729
0.09	323	405	522	611	702
0.10	302	390	498	582	676
0.11	278	371	487	556	651
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--	-	-	-	-	-

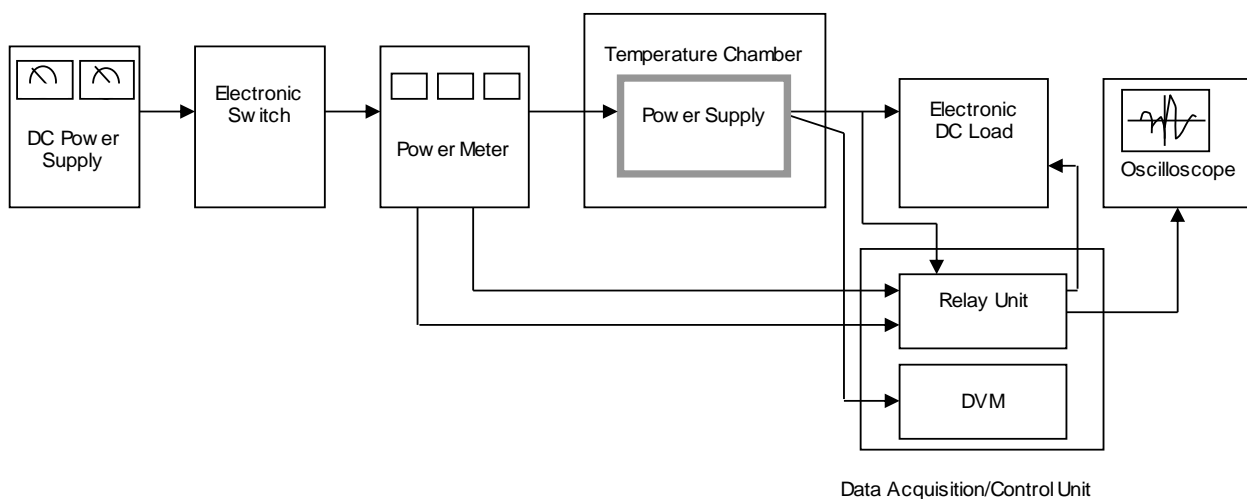


Figure A

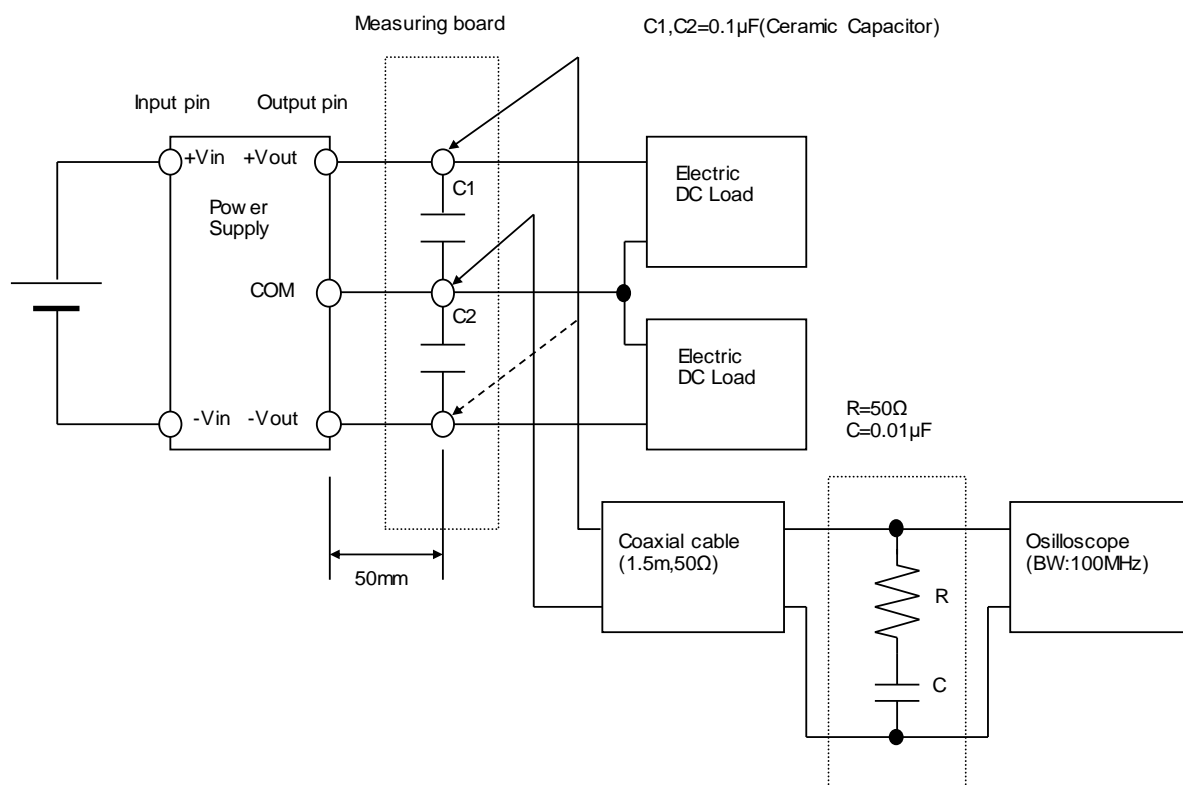


Figure B