参考資料

TEST DATA OF MGFW802415

Regulated DC Power Supply
April 5, 2019

Approved by : Junichi Hatagishi
Junichi Hatagishi Design Manager

Prepared by : Satoshi Kinoshita
Satoshi Kinoshita Design Engineer

COSEL CO.,LTD.

COSEL

CONTENTS

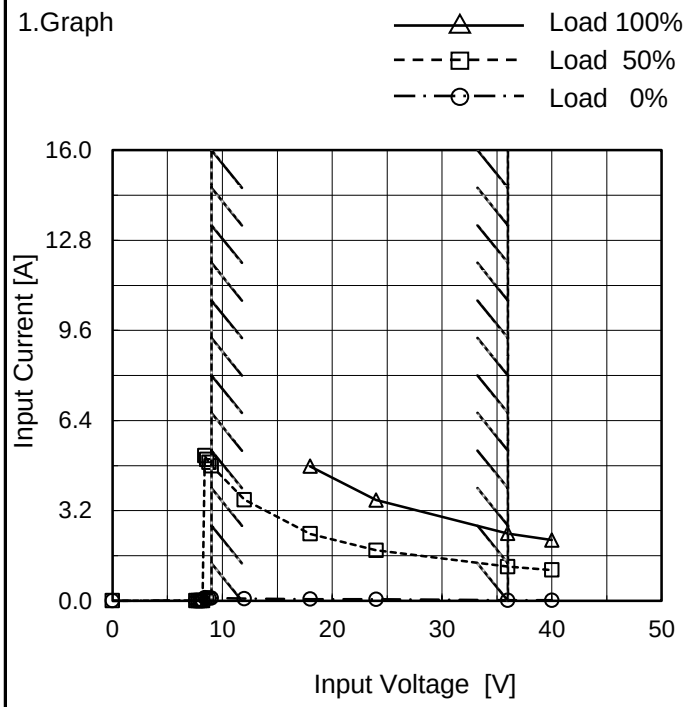
1.Input Current (by Input Voltage) ・・・・・・・・・・・・・・・・・・・・・・・・ 1
2.Input Current (by Load Current) ・・・・・・・・・・・・・・・・・・・・・・・・ 2
3.Input Power (by Load Current) ・・・・・・・・・・・・・・・・・・・・・・・・・ 3
4.Efficiency (by Input Voltage) ・・・・・・・・・・・・・・・・・・・・・・・・・ 4
5.Efficiency (by Load Current)・・・・・・・・・・・・・・・・・・・・・・・・・・ 5
6.Line Regulation ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 6
7.Load Regulation ・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 7
8.Dynamic Load Response ・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 8
9.Ripple Voltage (by Load Current)・・・・・・・・・・・・・・・・・・・・・・・・ 10
10.Ripple-Noise・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 12
11.Ripple Voltage (by Ambient Temperature) ・・・・・・・・・・・・・・・・・・・ 14
12.Ambient Temperature Drift ・・・・・・・・・・・・・・・・・・・・・・・・・・ 15
13.Output Voltage Accuracy ・・・・・・・・・・・・・・・・・・・・・・・・・・・ 16
14.Time Lapse Drift・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 17
15.Rise and Fall Time・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 18
16.Minimum Input Voltage for Regulated Output Voltage・・・・・・・・・・・・・ 20
17.Overcurrent Protection・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 21
18.Overvoltage Protection・・・・・・・・・・・・・・・・・・・・・・・・・・・・ 22
19.Switching frequency (by Load Current)・・・・・・・・・・・・・・・・・・・・ 23
20.Figure of Testing Circuitry ・・・・・・・・・・・・・・・・・・・・・・・・・・ 24
(Final Page 24)

COSEL

Model	MGFW802415
Item	Input Current (by Input Voltage)
Object	――――――――

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Input Current [A]		
	Load 0%	Load 50%	Load 100%
0.0	0.000	0.000	0.000
7.6	0.004	0.004	- ※
7.8	0.004	0.004	- ※
8.0	0.004	0.004	- ※
8.2	0.004	0.004	- ※
8.4	0.101	5.151	- ※
8.6	0.099	5.017	- ※
8.8	0.097	4.918	- ※
9.0	0.095	4.794	- ※
12.0	0.075	3.587	- ※
18.0	0.057	2.377	4.776
24.0	0.050	1.790	3.577
36.0	0.017	1.209	2.388
40.0	0.016	1.094	2.157
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

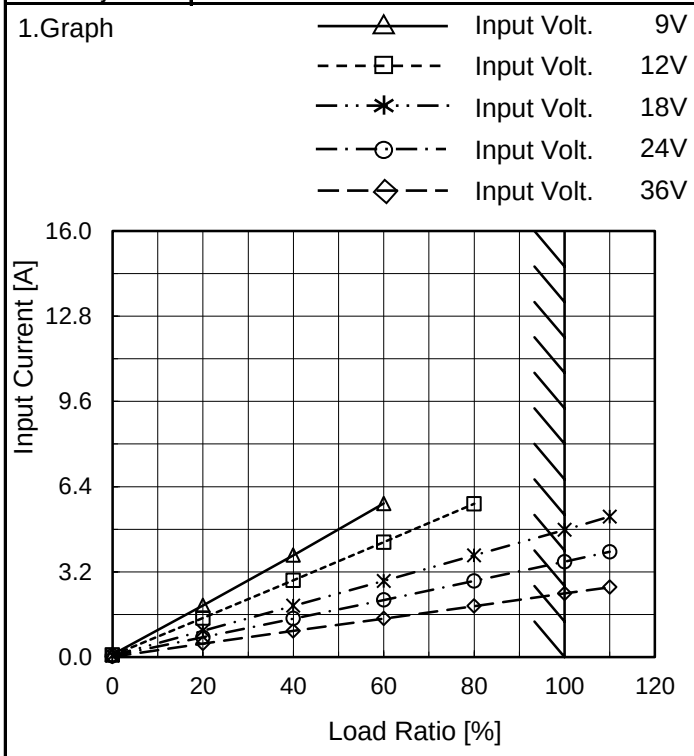
※During this area, overcurrent protection activates and power supply operates in hiccup mode.

COSEL

Model	MGFW802415
Item	Input Current (by Load Current)
Object	――――――

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Load Ratio [%]	Input Current [A]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0	0.095	0.075	0.057	0.050	0.017
20	1.941	1.462	0.989	0.746	0.510
40	3.826	2.881	1.928	1.446	0.982
60	5.768	4.310	2.857	2.146	1.445
80	- ※1	5.753	3.820	2.857	1.917
100	- ※1	- ※2	4.776	3.577	2.388
110	- ※1	- ※2	5.274	3.950	2.626
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at 12V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

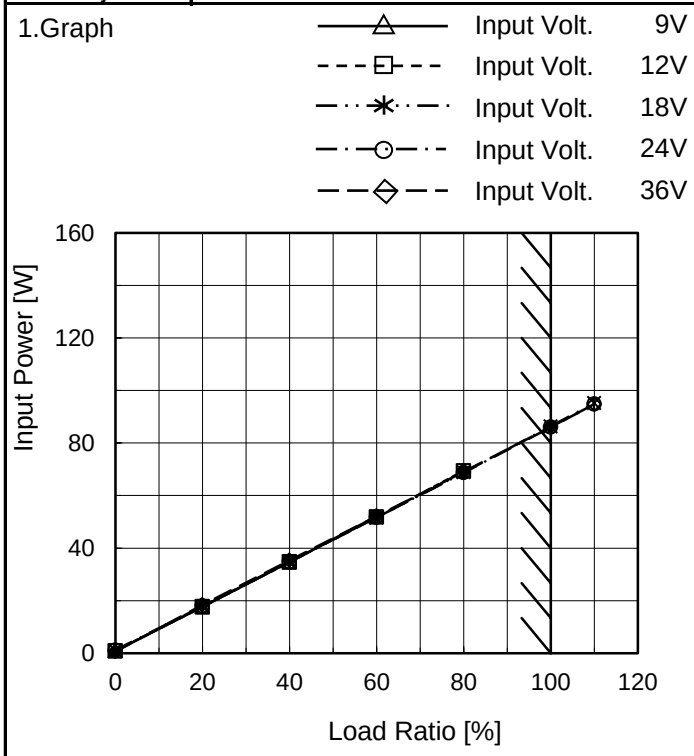
BC-11372

COSEL

Model	MGFW802415
Item	Input Power (by Load Current)
Object	――――――

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Load Ratio [%]	Input Power [W]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0	0.86	0.91	1.03	1.20	0.60
20	17.60	17.65	17.80	17.94	18.39
40	34.65	34.72	34.71	34.82	35.35
60	52.14	51.81	51.60	51.65	52.13
80	- ※1	69.40	68.83	68.73	69.02
100	- ※1	- ※2	86.32	86.05	86.15
110	- ※1	- ※2	95.24	94.81	94.80
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at 12V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

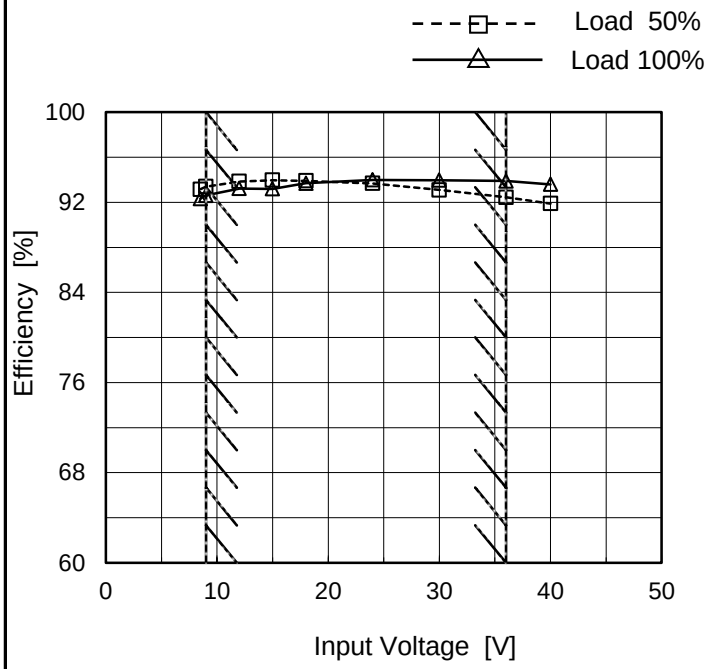
BC-11372

COSEL

Model	MGFW802415
Item	Efficiency (by Input Voltage)
Object	————————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
8.5	93.2	92.3 ※1
9.0	93.4	92.6 ※1
12.0	93.9	93.2 ※2
15.0	94.0	93.2
18.0	93.9	93.7
24.0	93.7	94.0
30.0	93.1	94.0
36.0	92.4	93.9
40.0	91.9	93.6

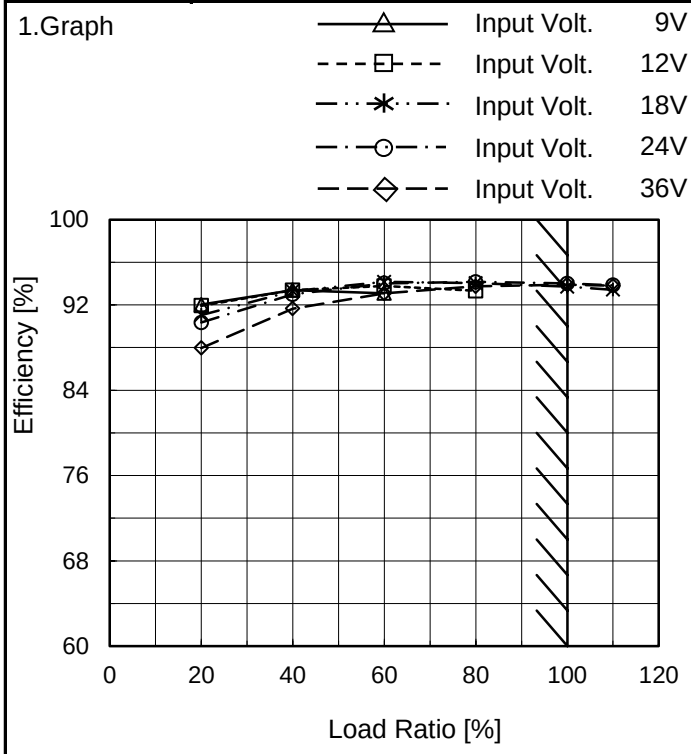
※1:Load 70%
※2:Load 80%

COSEL

Model	MGFW802415
Item	Efficiency (by Load Current)
Object	————————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



2.Values

Load Ratio [%]	Efficiency [%]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0	-	-	-	-	-
20	92.0	91.9	91.1	90.3	88.0
40	93.4	93.4	93.3	93.0	91.6
60	93.1	93.8	94.2	94.0	93.1
80	- ※1	93.3	94.0	94.2	93.7
100	- ※1	- ※2	93.7	94.0	93.9
110	- ※1	- ※2	93.4	93.8	93.8
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at 12V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

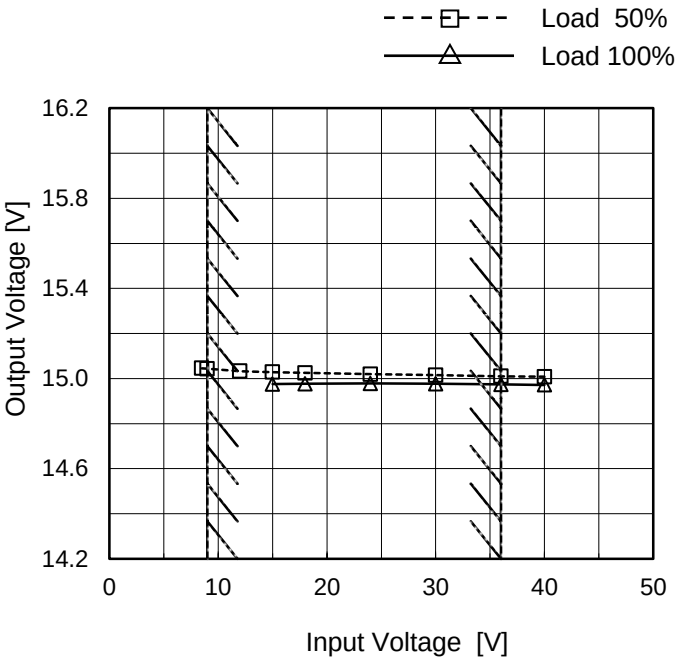
BC-11372

COSEL

Model	MGFW802415
Item	Line Regulation
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



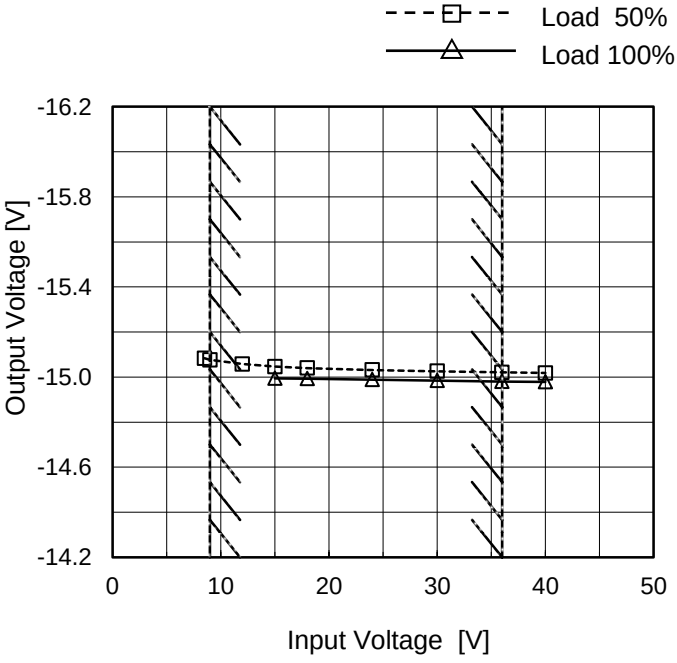
2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
8.5	15.046	- ※1
9.0	15.043	- ※1
12.0	15.033	- ※2
15.0	15.029	14.975
18.0	15.025	14.977
24.0	15.020	14.978
30.0	15.015	14.976
36.0	15.010	14.974
40.0	15.008	14.972

-15V: Rated Load Current

Object	-15V2.7A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
8.5	-15.083	- ※1
9.0	-15.077	- ※1
12.0	-15.058	- ※2
15.0	-15.047	-14.995
18.0	-15.040	-14.993
24.0	-15.031	-14.989
30.0	-15.026	-14.985
36.0	-15.021	-14.981
40.0	-15.018	-14.979

+15V: Rated Load Current

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

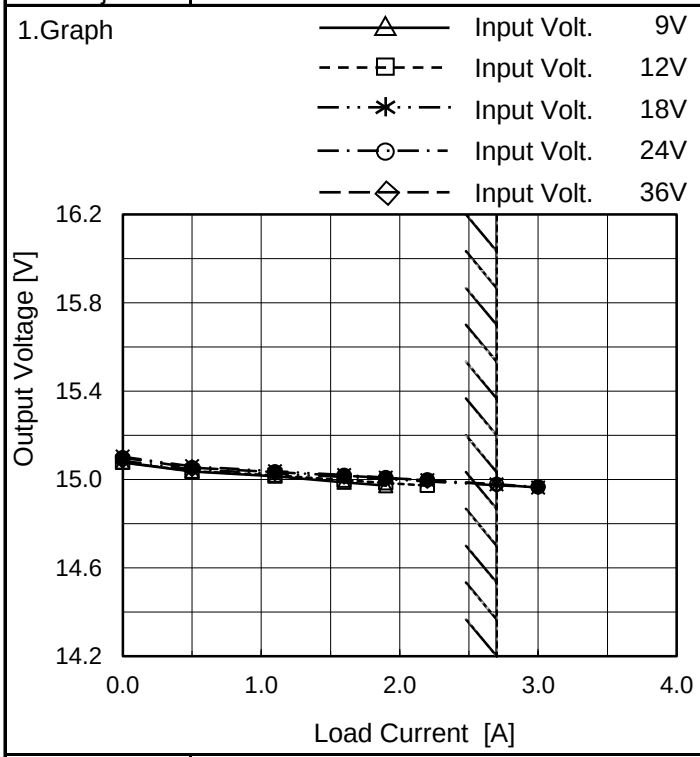
BC-11372

COSEL

Model	MGFW802415
Item	Load Regulation
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



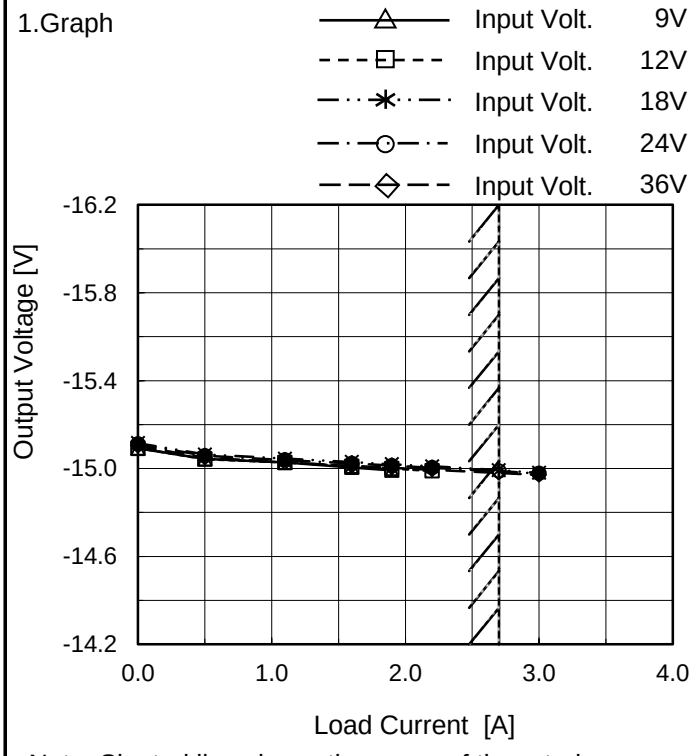
2.Values

Load Current [A]	Output Voltage [V] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.0	15.078	15.079	15.104	15.098	15.084
0.5	15.036	15.037	15.060	15.053	15.046
1.1	15.015	15.020	15.038	15.034	15.027
1.6	14.987	14.997	15.020	15.018	15.012
1.9	14.972	14.985	15.008	15.008	15.001
2.2	- ※1	14.973	14.996	14.997	14.992
2.7	- ※1	- ※2	14.977	14.978	14.974
3.0	- ※1	- ※2	14.964	14.967	14.966
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

-15V: Rated Load Current

Object	-15V2.7A

1.Graph



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

2.Values

Load Current [A]	Output Voltage [V] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
0.0	-15.092	-15.093	-15.115	-15.111	-15.103
0.5	-15.043	-15.043	-15.064	-15.058	-15.050
1.1	-15.027	-15.027	-15.045	-15.039	-15.027
1.6	-15.005	-15.010	-15.030	-15.023	-15.011
1.9	-14.992	-15.000	-15.020	-15.013	-15.004
2.2	- ※1	-14.989	-15.010	-15.003	-14.995
2.7	- ※1	- ※2	-14.993	-14.989	-14.981
3.0	- ※1	- ※2	-14.980	-14.977	-14.971
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

+15V: Rated Load Current

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at 12V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

COSEL

Model	MGFW802415	
Item	Dynamic Load Response	Temperature 25°C Testing Circuitry Figure A
Object	+15V2.7A	

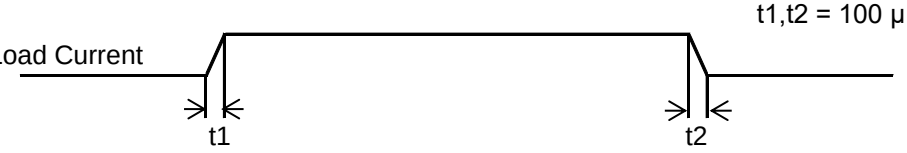
Input Volt. 24 V

-15V:rated load current.

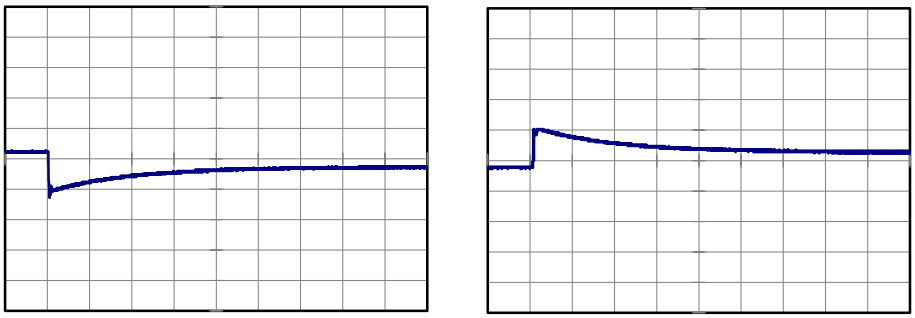
Cycle 100 ms

t1,t2 = 100 μs

Load Current



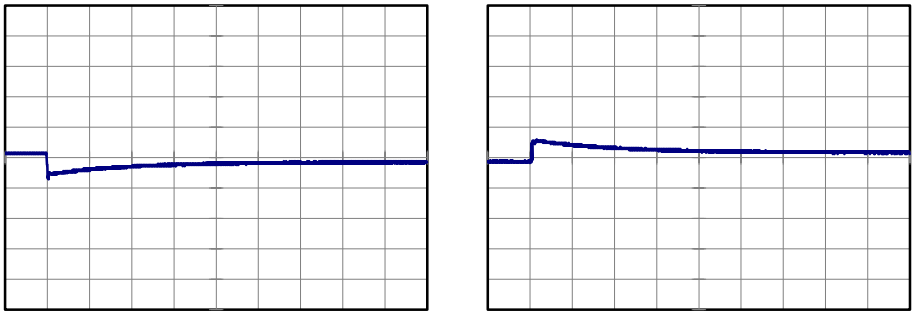
Min.Load (0A)←→
Load 100% (2.7A)



200 mV/div

2 ms/div 2 ms/div

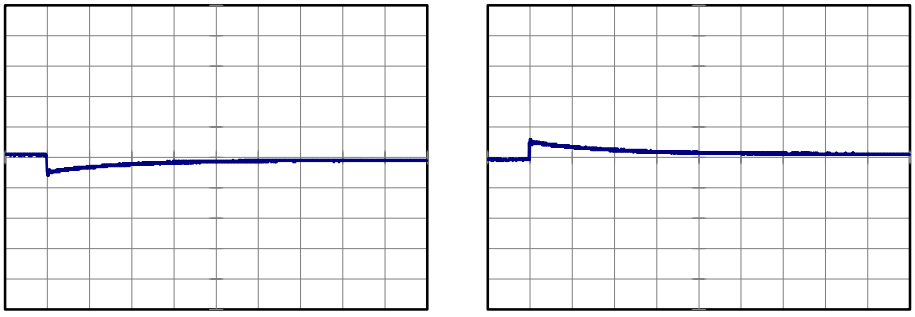
Min.Load (0A)←→
Load 50% (1.35A)



200 mV/div

2 ms/div 2 ms/div

Load 50% (1.35A)←→
Load 100% (2.7A)



200 mV/div

2 ms/div 2 ms/div

COSEL

Model	MGFW802415	
Item	Dynamic Load Response	Temperature 25°C Testing Circuitry Figure A
Object	-15V2.7A	

Input Volt. 24 V

+15V:rated load current.

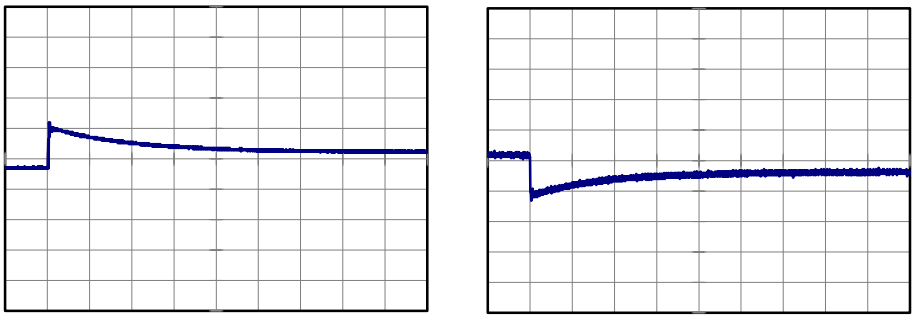
Cycle 100 ms

t1,t2 = 100 μ s

Load Current

t1 t2

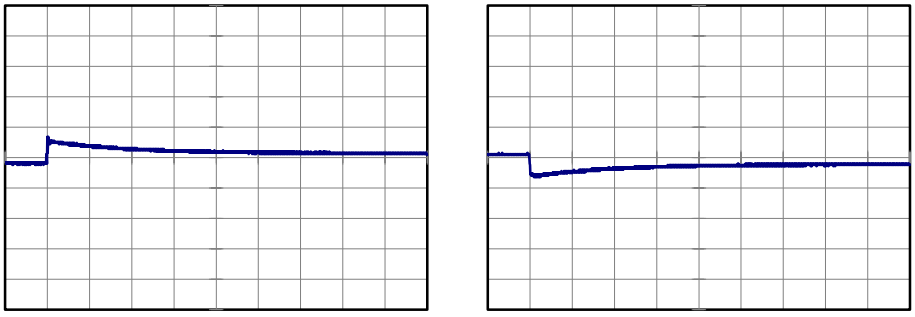
Min.Load (0A)←→
Load 100% (2.7A)



200 mV/div

2 ms/div 2 ms/div

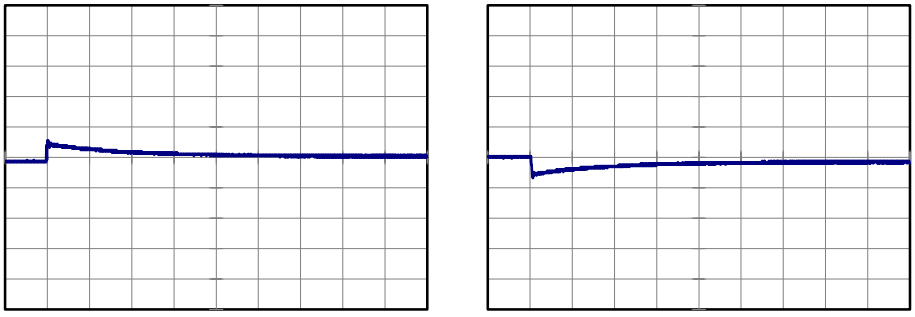
Min.Load (0A)←→
Load 50% (1.35A)



200 mV/div

2 ms/div 2 ms/div

Load 50% (1.35A)←→
Load 100% (2.7A)



200 mV/div

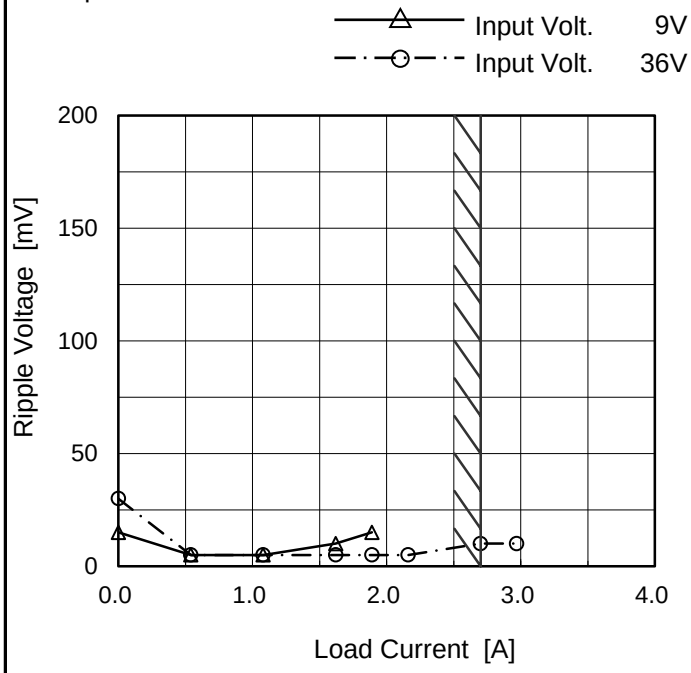
2 ms/div 2 ms/div

COSEL

Model	MGFW802415
Item	Ripple Voltage (by Load Current)
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure B

1.Graph



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.

Ripple [mVp-p]

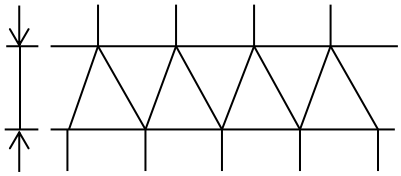


Fig.Complex Ripple Wave Form

2.Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 9 [V]	Input Volt. 36 [V]
0.0	15	30
0.5	5	5
1.1	5	5
1.6	10	5
1.9	15	5
2.2	- ※	5
2.7	- ※	10
3.0	- ※	10
--	-	-
--	-	-
--	-	-

-15V: Rated Load Current

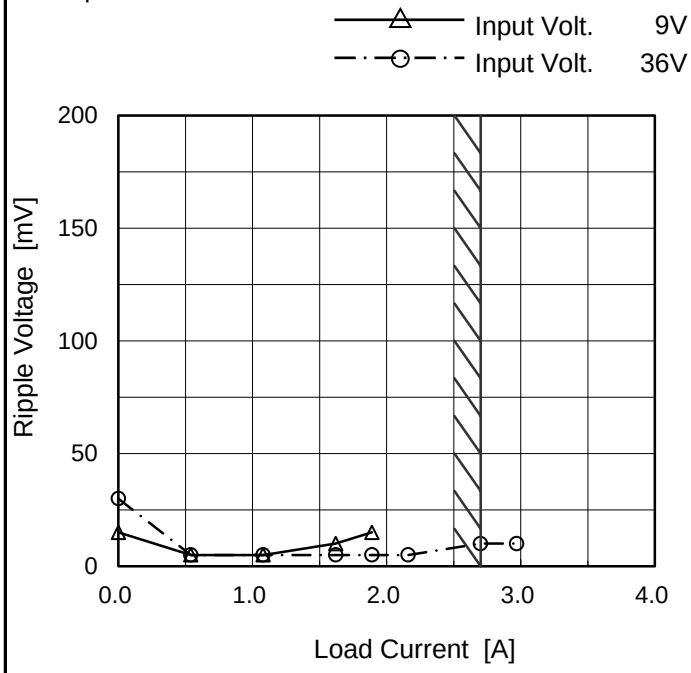
※ Maximum output current at minimum input Voltage is 70% of rated load current. Refer to instruction manuals for details of input derating.

COSEL

Model	MGFW802415
Item	Ripple Voltage (by Load Current)
Object	-15V2.7A

Temperature 25°C
Testing Circuitry Figure B

1.Graph



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.

Ripple [mVp-p]

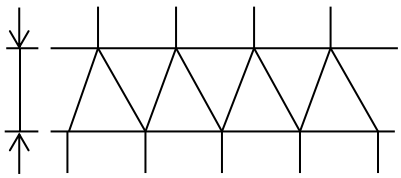


Fig.Complex Ripple Wave Form

2.Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 9 [V]	Input Volt. 36 [V]
0.0	15	30
0.5	5	5
1.1	5	5
1.6	10	5
1.9	15	5
2.2	- ※	5
2.7	- ※	10
3.0	- ※	10
--	-	-
--	-	-
--	-	-

+15V: Rated Load Current

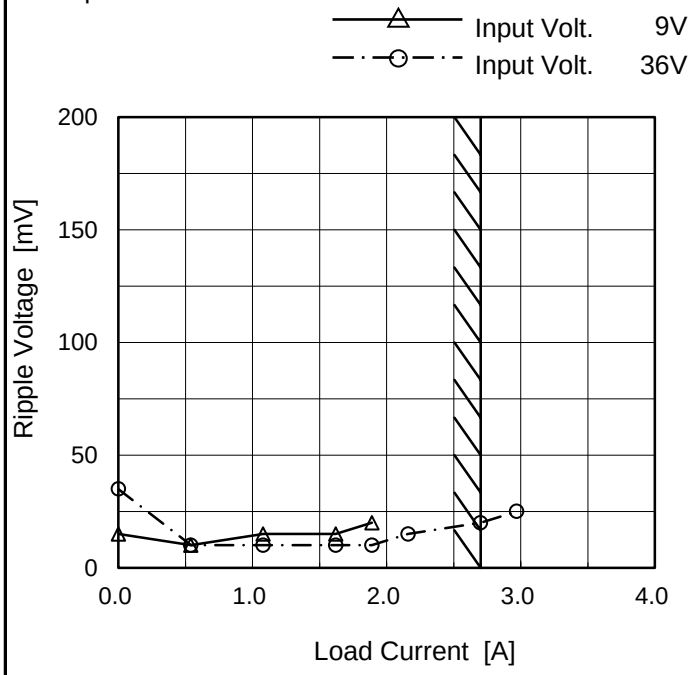
※ Maximum output current at minimum input Voltage is 70% of rated load current. Refer to instruction manuals for details of input derating.

COSEL

Model	MGFW802415
Item	Ripple-Noise
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure B

1.Graph



Measured by 100 MHz Oscilloscope.
Ripple-Noise is shown as p-p in the figure below.
Note: Slanted line shows the range of the rated load current.

Ripple Noise[mVp-p]

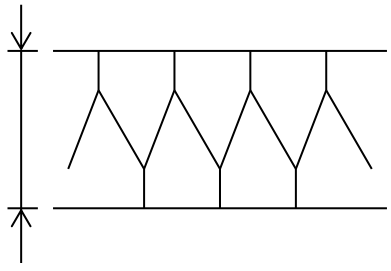


Fig.Complex Ripple Noise Wave Form

2.Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 9 [V]	Input Volt. 36 [V]
0.0	15	35
0.5	10	10
1.1	15	10
1.6	15	10
1.9	20	10
2.2	- ※	15
2.7	- ※	20
3.0	- ※	25
--	-	-
--	-	-
--	-	-

-15V: Rated Load Current

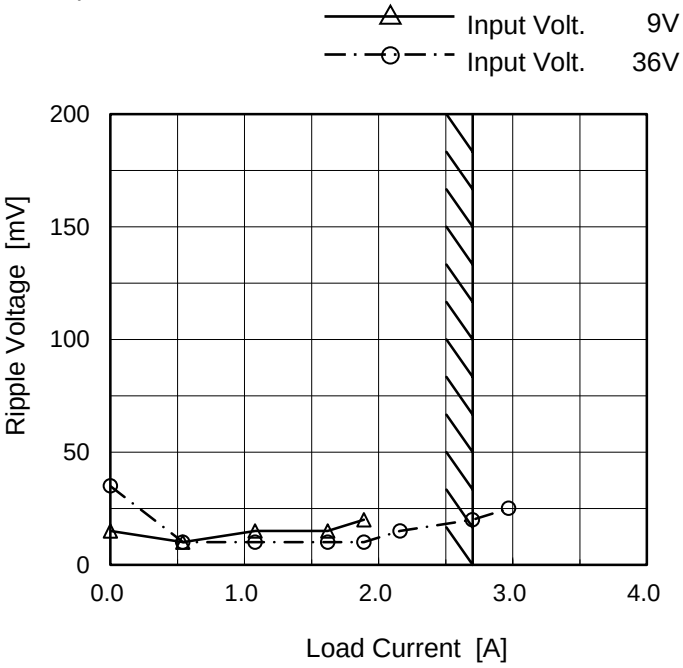
※ Maximum output current at minimum input Voltage is 70% of rated load current. Refer to instruction manuals for details of input derating.

COSEL

Model	MGFW802415
Item	Ripple-Noise
Object	-15V2.7A

Temperature 25°C
Testing Circuitry Figure B

1.Graph



Measured by 100 MHz Oscilloscope.
Ripple-Noise is shown as p-p in the figure below.
Note: Slanted line shows the range of the rated load current.

Ripple Noise[mVp-p]

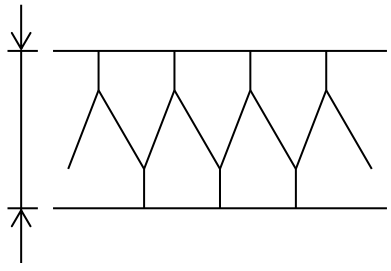


Fig.Complex Ripple Noise Wave Form

2.Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 9 [V]	Input Volt. 36 [V]
0.0	15	35
0.5	10	10
1.1	15	10
1.6	15	10
1.9	20	10
2.2	- ※	15
2.7	- ※	20
3.0	- ※	25
--	-	-
--	-	-
--	-	-

+15V: Rated Load Current

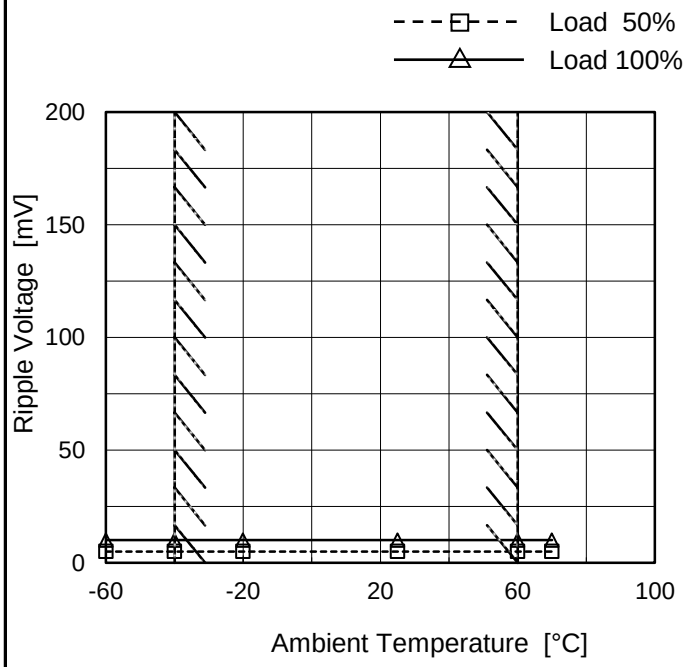
※ Maximum output current at minimum input Voltage is 70% of rated load current. Refer to instruction manuals for details of input derating.

COSEL

Model	MGFW802415
Item	Ripple Voltage (by Ambient Temp.)
Object	+15V2.7A

Testing Circuitry Figure B

1.Graph



Input Volt. 24V

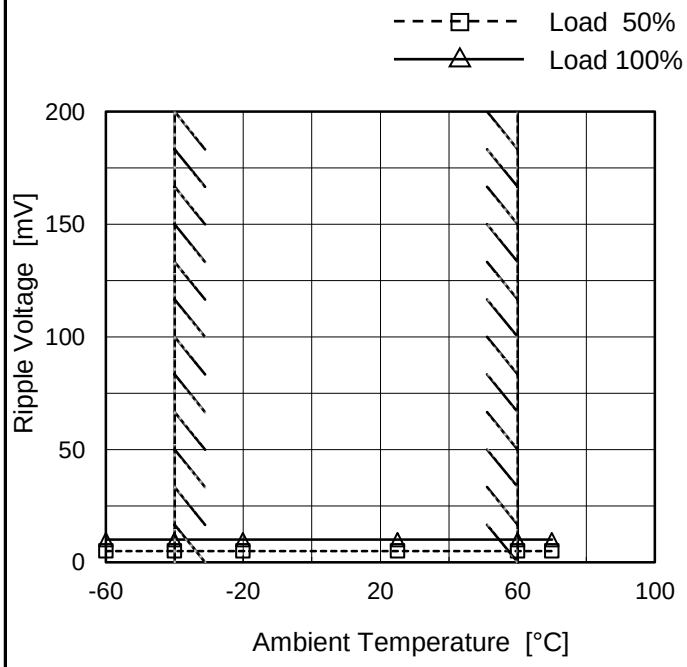
2.Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-60	5	10
-40	5	10
-20	5	10
25	5	10
60	5	10
70	5	10
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-

-15V: Rated Load Current

Object	-15V2.7A

1.Graph



Input Volt. 24V

Measured by 100 MHz Oscilloscope.

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

2.Values

Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-60	5	10
-40	5	10
-20	5	10
25	5	10
60	5	10
70	5	10
--	-	-
--	-	-
--	-	-
--	-	-
--	-	-

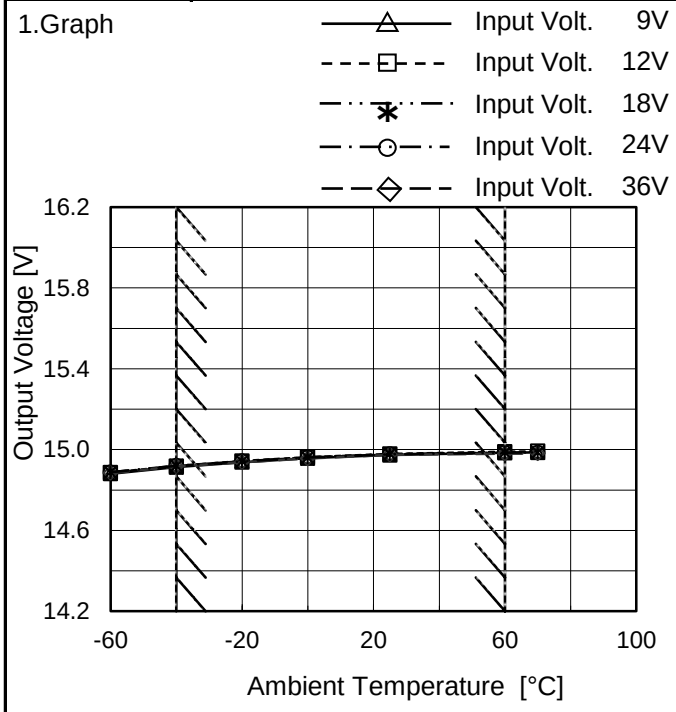
+15V: Rated Load Current

COSEL

Model	MGFW802415
Item	Ambient Temperature Drift
Object	+15V2.7A

Testing Circuitry Figure A

1.Graph

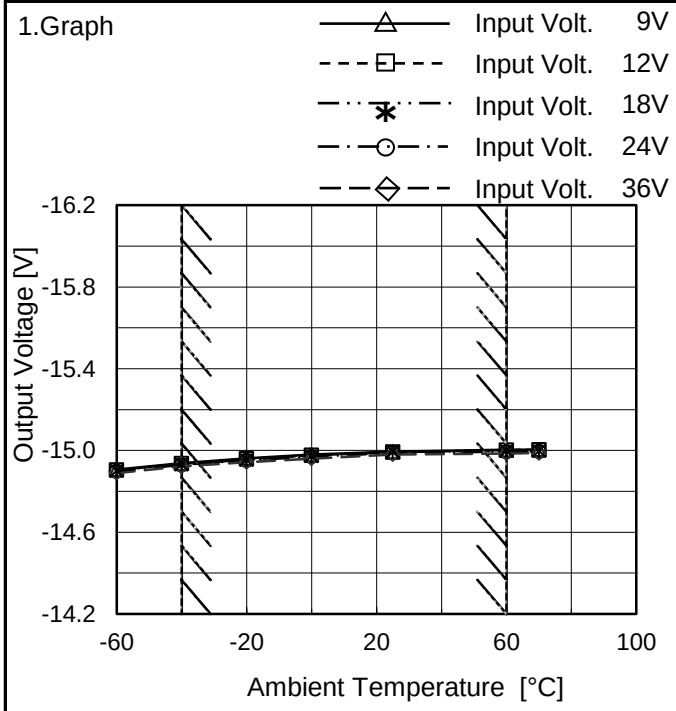


2.Values

Ambient Temperature [°C]	Output Voltage [V] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-60	14.881	14.886	14.888	14.888	14.884
-40	14.913	14.918	14.919	14.920	14.917
-20	14.938	14.943	14.942	14.942	14.938
0	14.958	14.963	14.961	14.961	14.956
25	14.973	14.978	14.977	14.978	14.974
60	14.984	14.989	14.985	14.985	14.979
70	14.986	14.991	14.986	14.986	14.981
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

Object	-15V2.7A

1.Graph



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

2.Values

Ambient Temperature [°C]	Output Voltage [V] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-60	-14.907	-14.904	-14.901	-14.898	-14.889
-40	-14.938	-14.935	-14.933	-14.930	-14.922
-20	-14.962	-14.959	-14.955	-14.952	-14.943
0	-14.980	-14.977	-14.974	-14.970	-14.961
25	-14.994	-14.992	-14.993	-14.989	-14.981
60	-15.004	-15.002	-14.998	-14.994	-14.986
70	-15.005	-15.003	-14.999	-14.995	-14.987
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

Note: In case of input Volt.9V, Load 70%.
12V, Load 80%.
Other case Load 100%.

Model	MGFW802415	
Item	Output Voltage Accuracy	Testing Circuitry Figure A

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 - 60°C

Input Voltage : 9 - 36V

Load Current (AVR 1) : 0 - 2.7A (AVR 2) : 0 - 2.7A

* Output Voltage Accuracy = ±(Maximum of Output Voltage - Minimum of Output Voltage) / 2

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

2.Values

Object	+15V2.7A					
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	60	12	0	15.125	±104	±0.7
Minimum Voltage	-40	36	2.7	14.917		

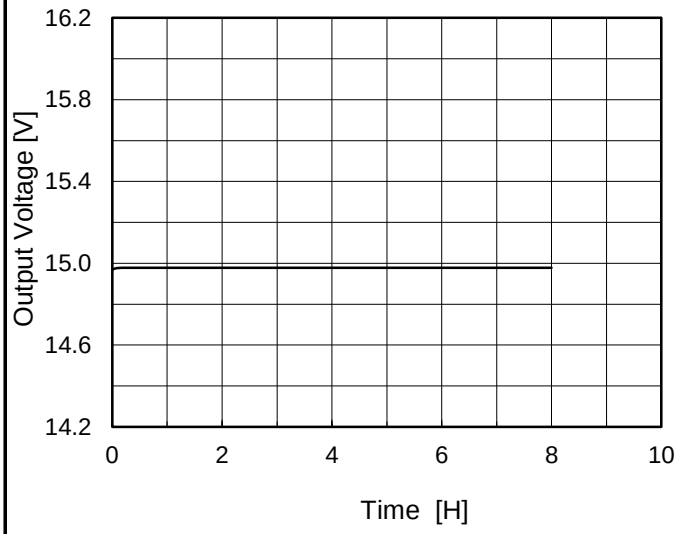
Object	-15V2.7A					
Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	60	36	0	-15.137	±108	±0.7
Minimum Voltage	-40	36	2.7	-14.922		

COSEL

Model	MGFW802415
Item	Time Lapse Drift
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Input Volt. 24V
Load 100%

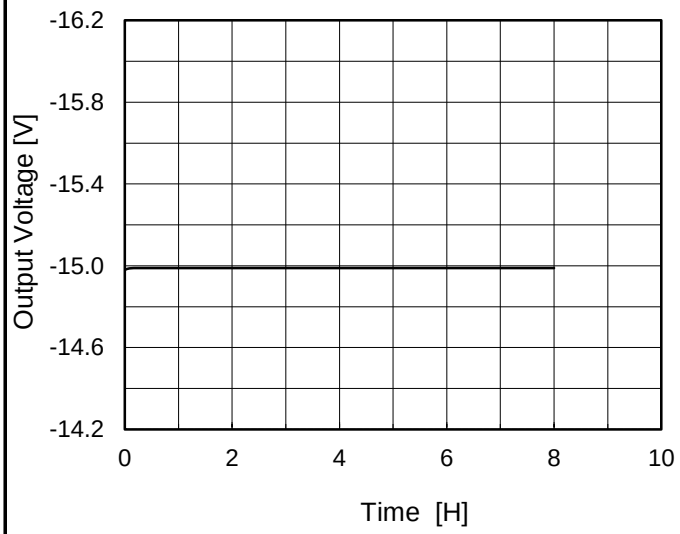
2.Values

Time since start [H]	Output Voltage [V]
0.0	14.967
0.5	14.978
1.0	14.978
2.0	14.978
3.0	14.978
4.0	14.978
5.0	14.978
6.0	14.978
7.0	14.978
8.0	14.978

-15V: Rated Load Current

Object	-15V2.7A

1.Graph



Input Volt. 24V
Load 100%

2.Values

Time since start [H]	Output Voltage [V]
0.0	-14.977
0.5	-14.989
1.0	-14.989
2.0	-14.989
3.0	-14.989
4.0	-14.989
5.0	-14.989
6.0	-14.989
7.0	-14.989
8.0	-14.989

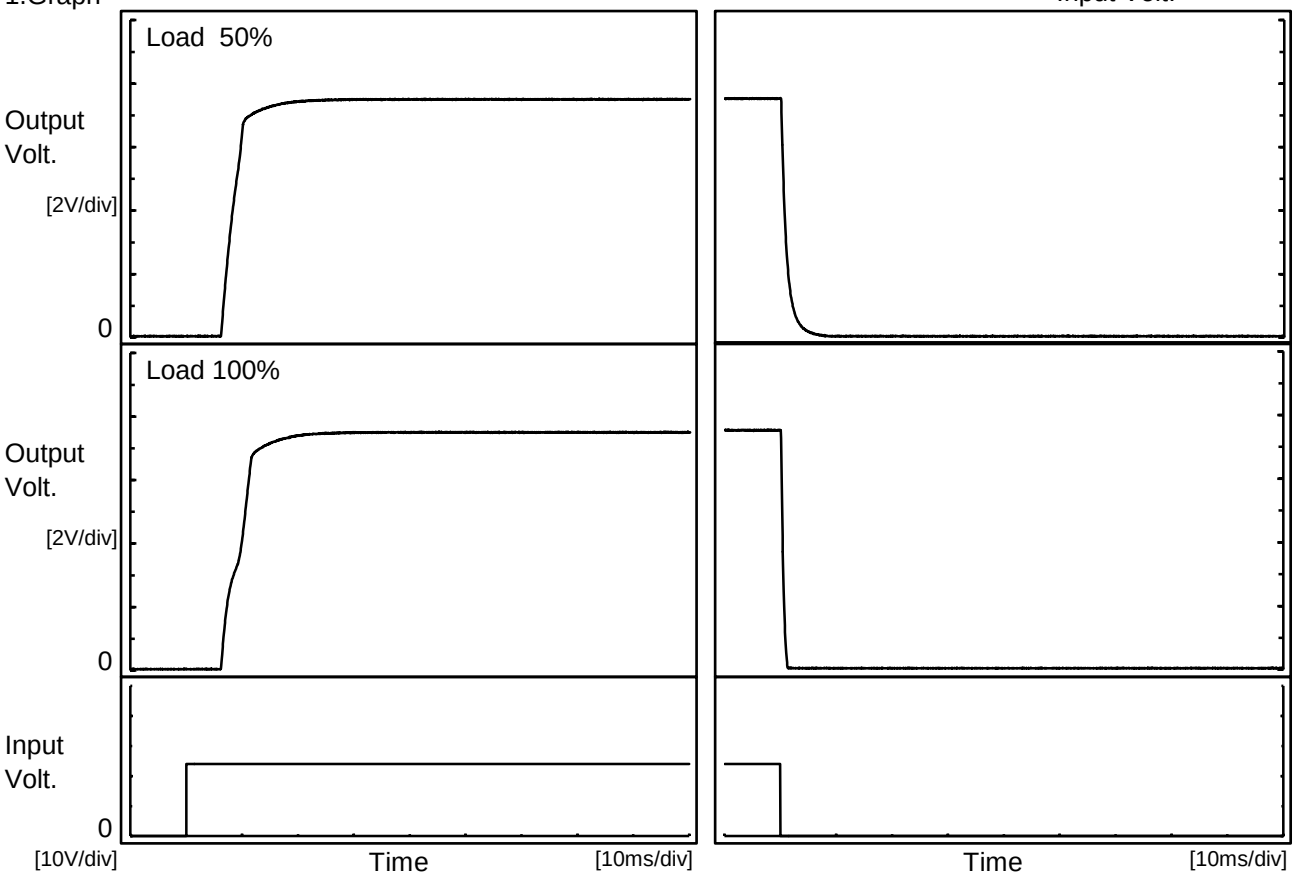
+15V: Rated Load Current

COSEL

Model	MGFW802415	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	+15V2.7A	

1.Graph

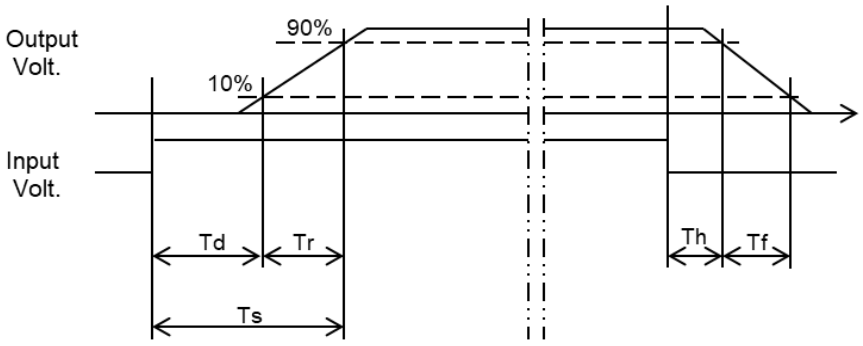
Input Volt. 24 V



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	6.6	3.8	10.4	0.2	2.3
100 %	6.6	5.4	12.0	0.2	0.8

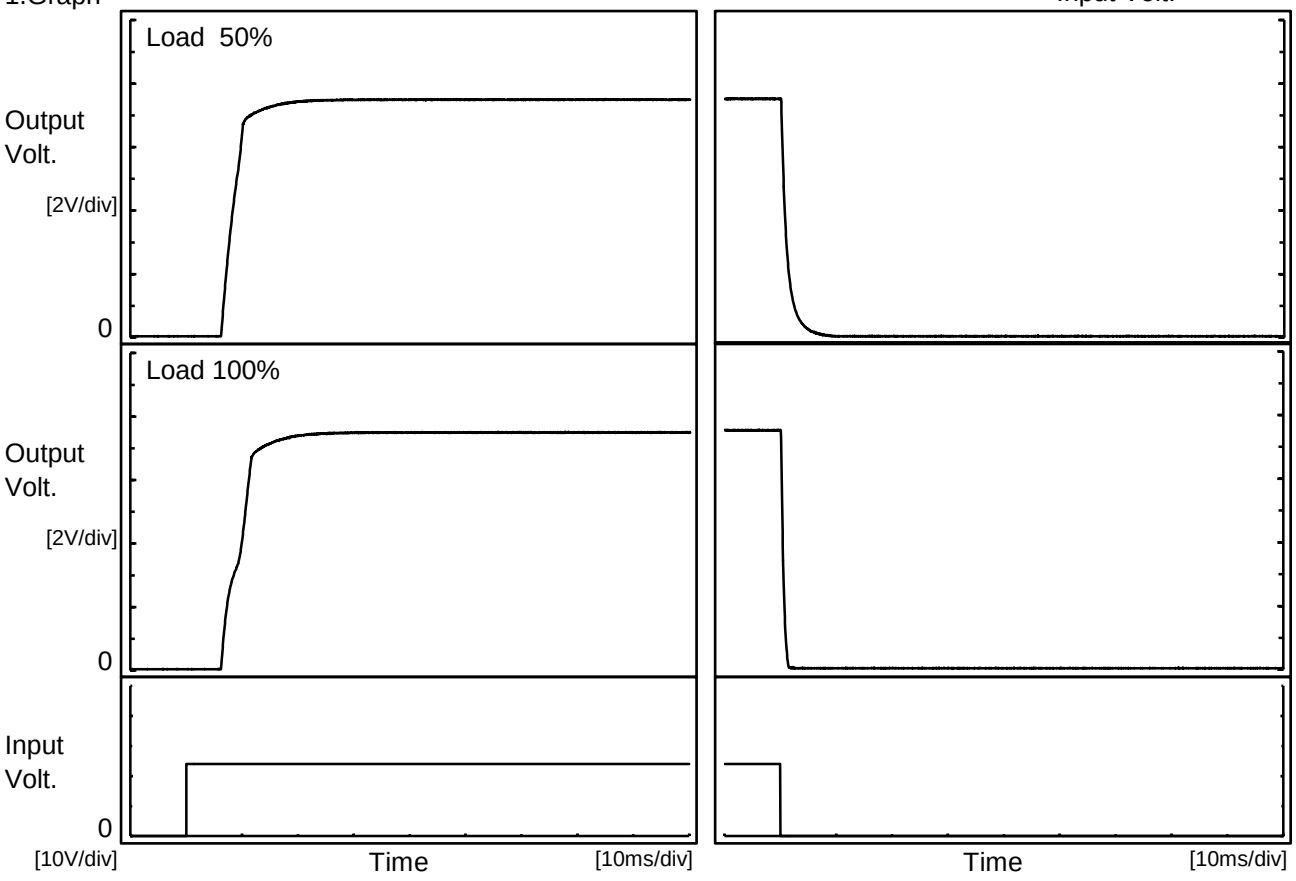


COSEL

Model	MGFW802415	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	-15V2.7A	

1.Graph

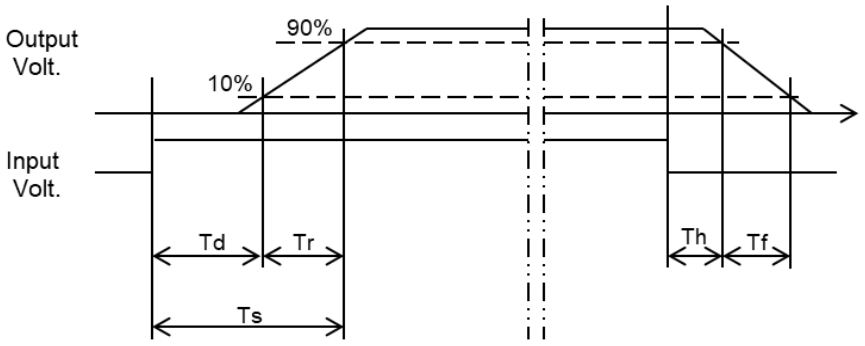
Input Volt. 24 V



2.Values

[ms]

Load \ Time	Td	Tr	Ts	Th	Tf
50 %	6.6	3.8	10.4	0.2	2.6
100 %	6.6	5.4	12.0	0.2	0.9

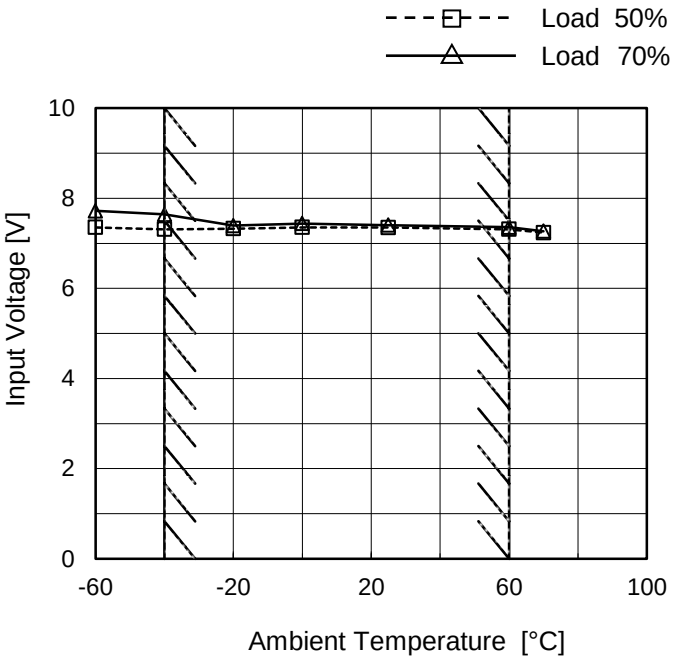


COSEL

Model	MGFW802415
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+15V2.7A

Testing Circuitry Figure A

1.Graph



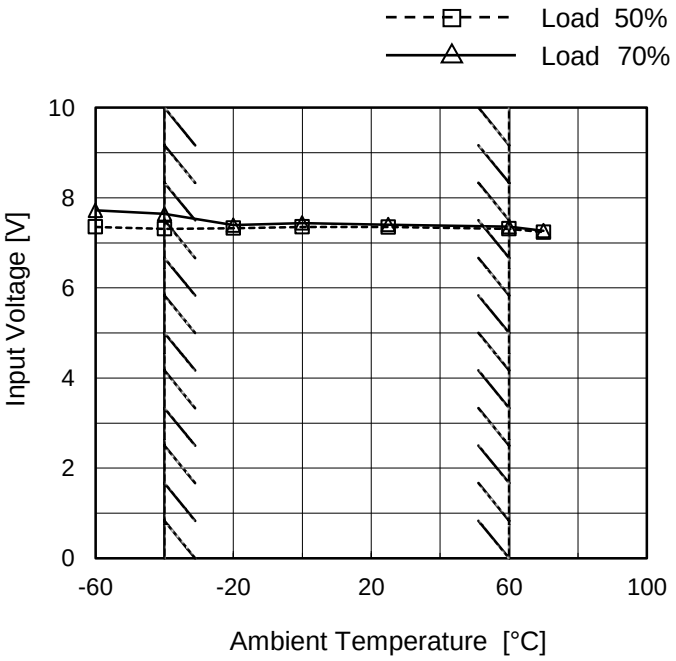
2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 70%
-60	7.4	7.8
-40	7.4	7.7
-20	7.4	7.4
0	7.4	7.5
25	7.4	7.4
60	7.4	7.4
70	7.3	7.3
--	-	-
--	-	-
--	-	-
--	-	-

-15V: Load Current is same as well as +15V

Object	-15V2.7A

1.Graph



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

2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 70%
-60	7.4	7.8
-40	7.4	7.7
-20	7.4	7.4
0	7.4	7.5
25	7.4	7.4
60	7.4	7.4
70	7.3	7.3
--	-	-
--	-	-
--	-	-
--	-	-

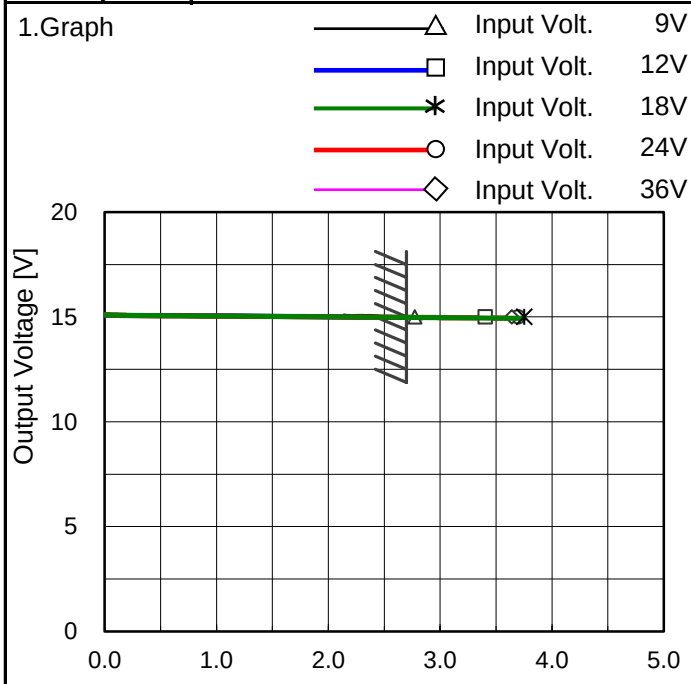
+15V: Load Current is same as well as -15V

COSEL

Model	MGFW802415
Item	Overcurrent Protection
Object	+15V2.7A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



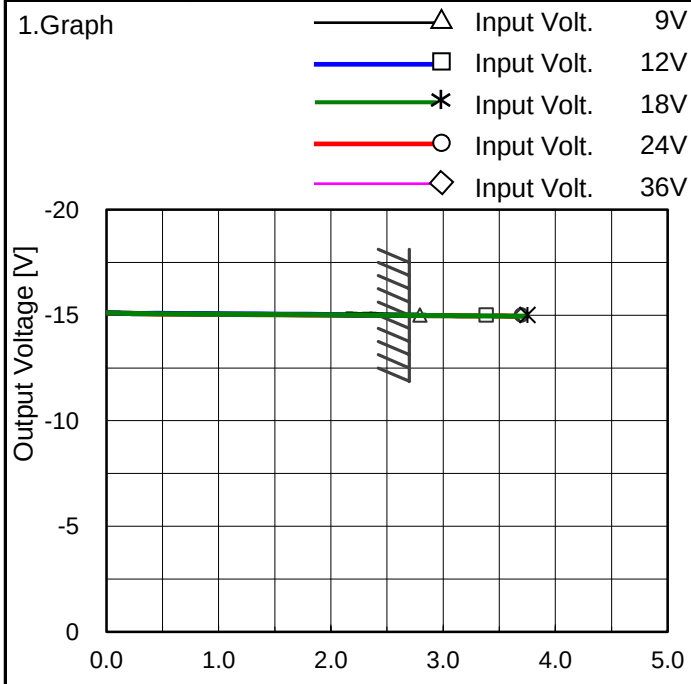
2.Values

Output Voltage [V]	Load Current [A]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
15.0	2.775	3.405	3.754	3.700	3.642
14.3	- ※1	- ※2	-	-	-
13.5	-	-	-	-	-
12.0	-	-	-	-	-
10.5	-	-	-	-	-
9.0	-	-	-	-	-
7.5	-	-	-	-	-
6.0	-	-	-	-	-
4.5	-	-	-	-	-
0.0	-	-	-	-	-

-15V: Rated Load Current

Object	-15V2.7A

1.Graph



Note: Slanted line shows the range of the rated load current.
Intermittent operation occurs when overcurrent protection is activated.

2.Values

Output Voltage [V]	Load Current [A]				
	Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-15.0	2.795	3.385	3.753	3.698	3.695
-14.3	- ※1	- ※2	-	-	-
-13.5	-	-	-	-	-
-12.0	-	-	-	-	-
-10.5	-	-	-	-	-
-9.0	-	-	-	-	-
-7.5	-	-	-	-	-
-6.0	-	-	-	-	-
-4.5	-	-	-	-	-
0.0	-	-	-	-	-

+15V: Rated Load Current

※1 Maximum output current at minimum input Voltage is 70% of rated load current.
※2 Maximum output current at V input Voltage is 80% of rated load current.
Refer to instruction manuals for details of input derating.

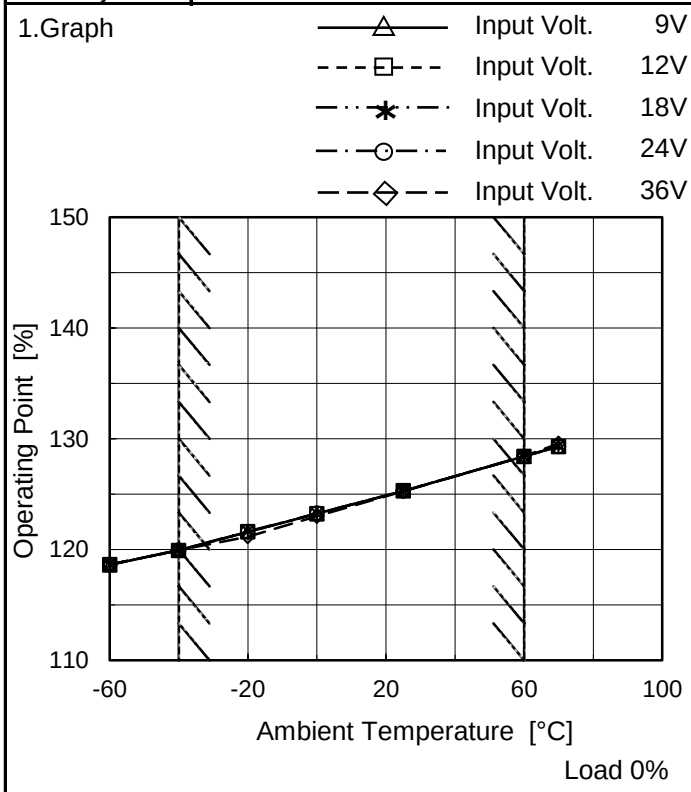
BC-11372

COSEL

Model	MGFW802415
Item	Overvoltage Protection
Object	+30V2.7A

Testing Circuitry Figure A

1.Graph



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

Measured as a single output (+30V).

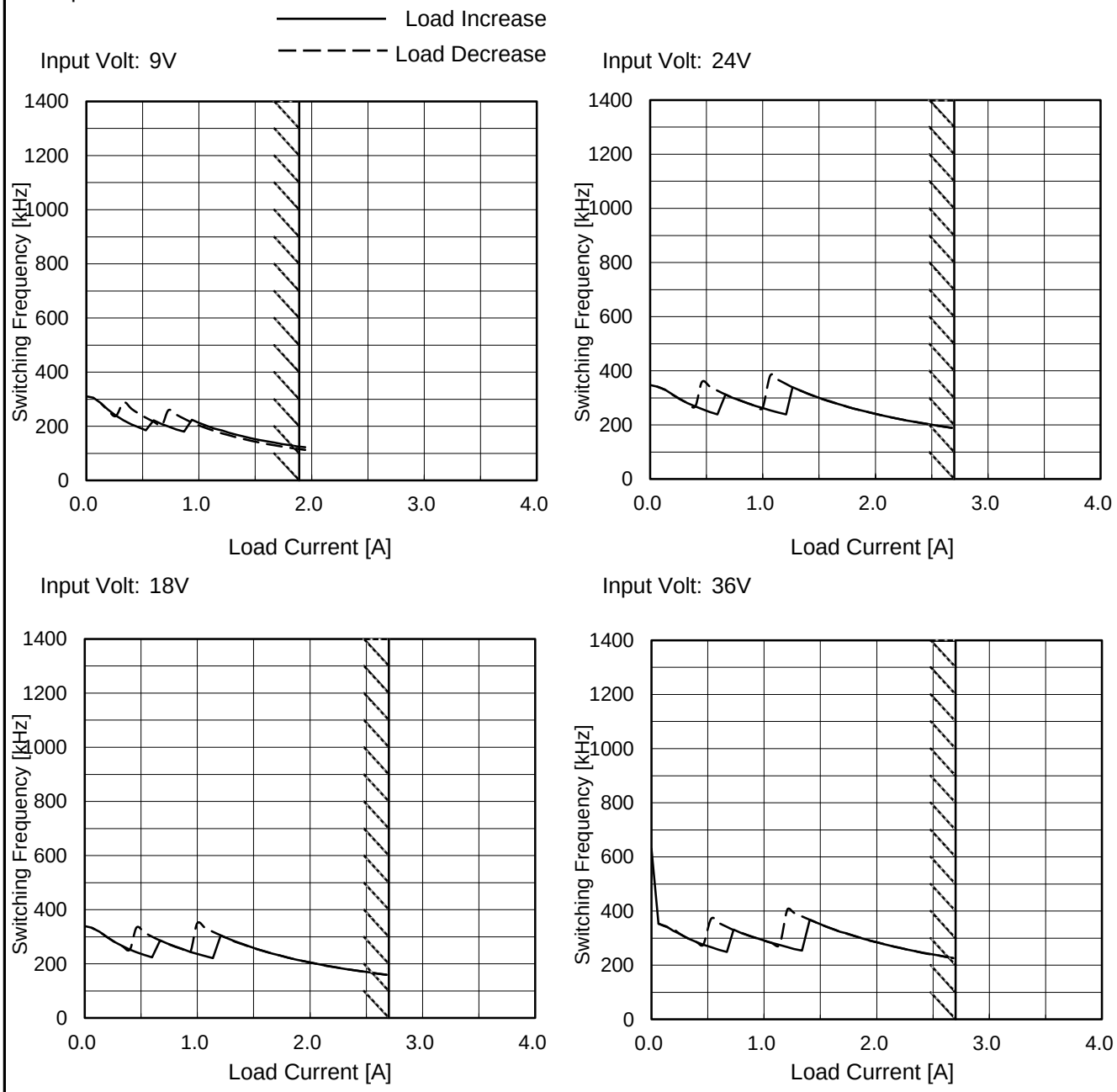
2.Values

Ambient Temperature [°C]	Operating Point [%] Input Volt. 9[V]	Input Volt. 12[V]	Input Volt. 18[V]	Input Volt. 24[V]	Input Volt. 36[V]
-60	119	119	119	119	119
-40	120	120	120	120	120
-20	122	122	122	122	121
0	123	123	123	123	123
25	125	125	125	125	125
60	128	128	128	128	128
70	129	129	129	129	130
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-
--	-	-	-	-	-

COSEL

Model	MGFW802415	
Item	Switching frequency (by Load Current)	Temperature 25°C Testing Circuitry Figure A
Object	+/-15V2.7A	

1.Graph



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

-switching frequency of MG80 changes depending on load current and input voltage.
When load current is low, switching frequency becomes high and step down to low frequency at certain point.
There is hysteresis, so characteristic is different between load increase (sweep from 0% to 100%) and load decrease (sweep from 100% to 0%).

-When load current is low, MG80 operates intermittently, so switching frequency would not become constant.
※ Maximum output current at minimum input Voltage is 70% of rated load current.
Refer to instruction manuals for details of input derating.

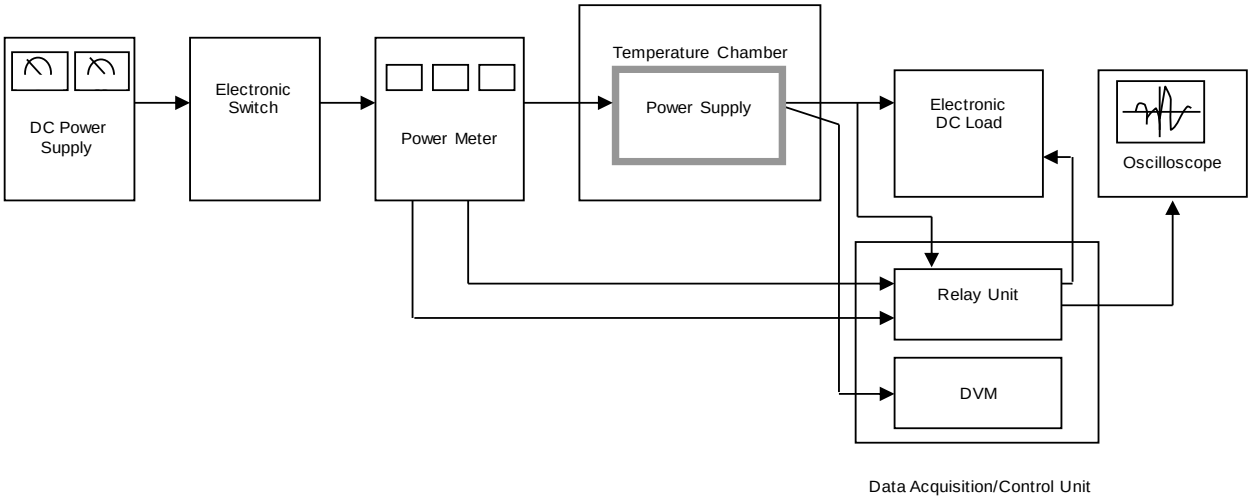


Figure A

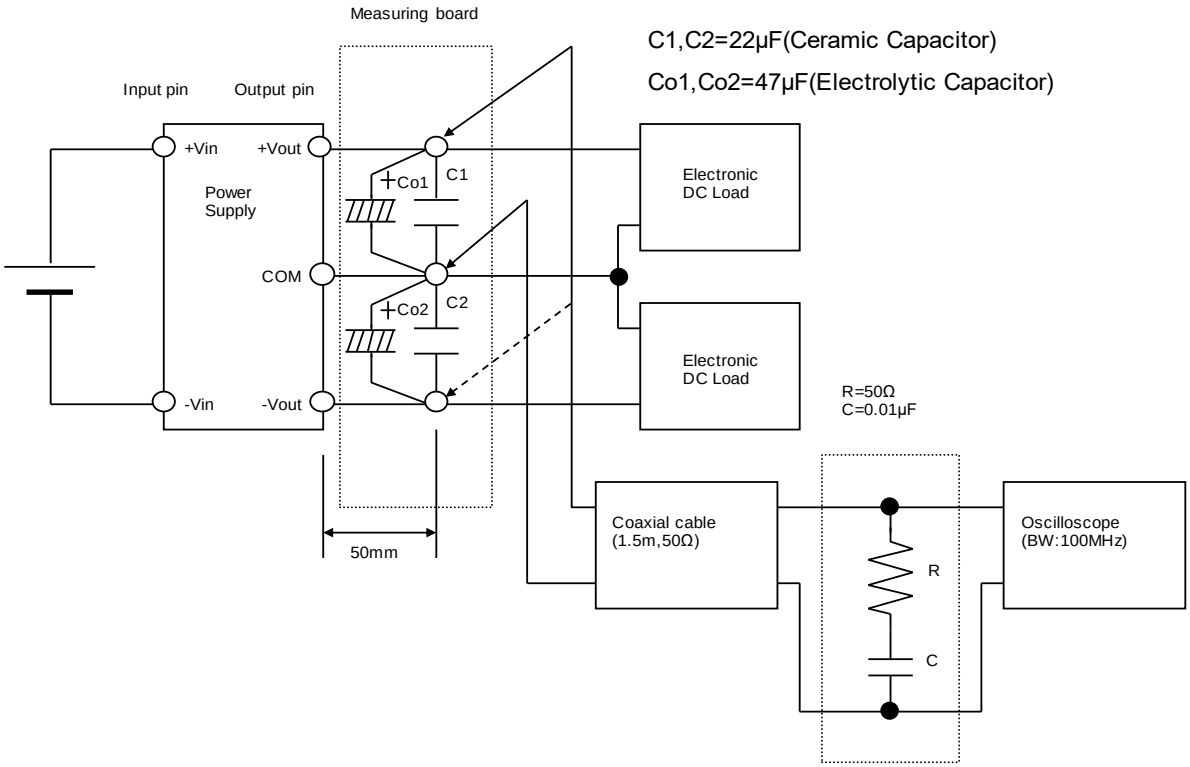


Figure B（Ripple and Ripple noise Characteristic）