

iJC12100A006V-*-R**

EVALUATION DATA

型式データ

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使用記号 Terminology used

	定義	Definition
V _{in}	…… 入力電圧	Input voltage
V _o	…… 出力電圧	Output voltage
EN	…… EN端子電圧	EN pin voltage
I _{in}	…… 入力電流	Input current
I _o	…… 出力電流	Output current
T _a	…… 周囲温度	Ambient temperature

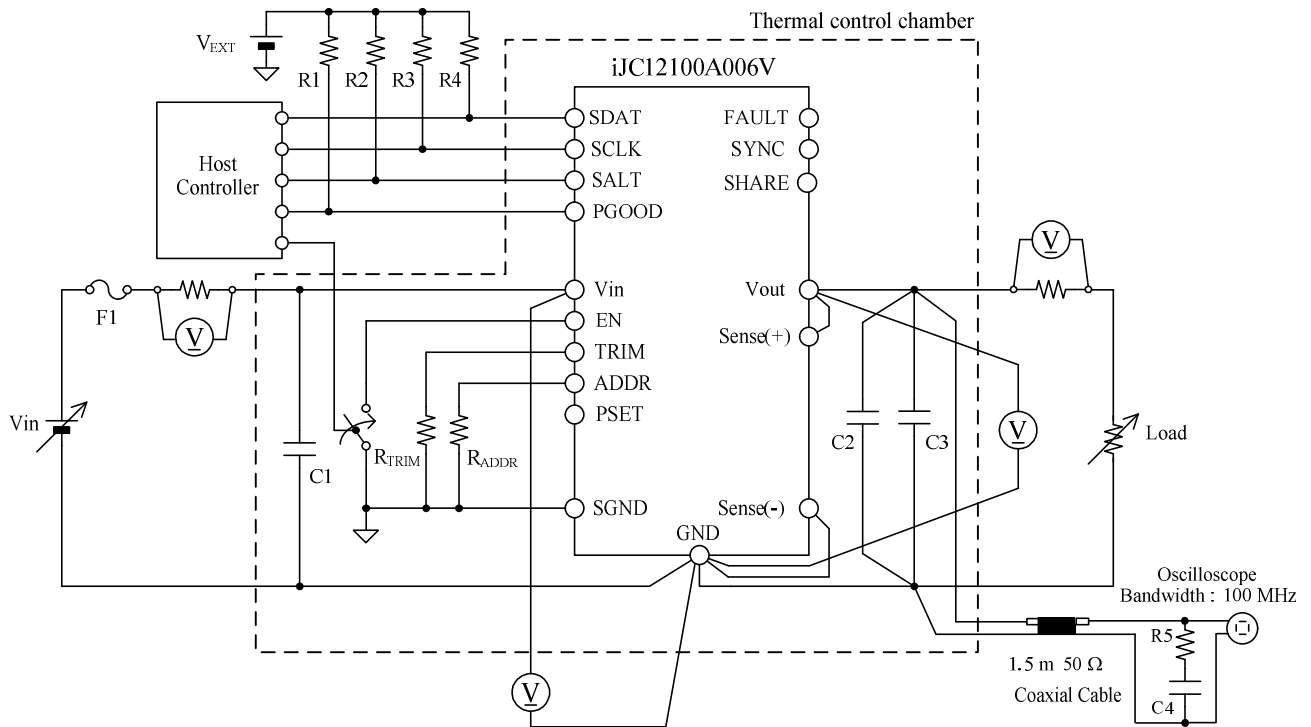
※ 当社測定条件における結果であり、参考値としてお考え願います。
Test results are reference data based on our measurement condition.

1. 測定方法 Evaluation Method

1.1 測定回路 Measurement Circuits

測定回路1 Measurement Circuit 1

- 静特性 Steady state data
- 待機電力特性 Standby power characteristics
- 通電ドリフト特性 Warm up voltage drift characteristics
- 過電流保護特性 Over current protection (OCP) characteristics
- 出力リップルノイズ波形 Output ripple and noise waveform



C1 : 22 μ F Ceramic Capacitor \times 10 Parallel

C2 : 100 μ F Ceramic Capacitor \times 10 Parallel

C3 : 0.1 μ F Ceramic Capacitor

C4 : 4700pF Ceramic Capacitor

R1, R2, R3, R4 : 10k Ω

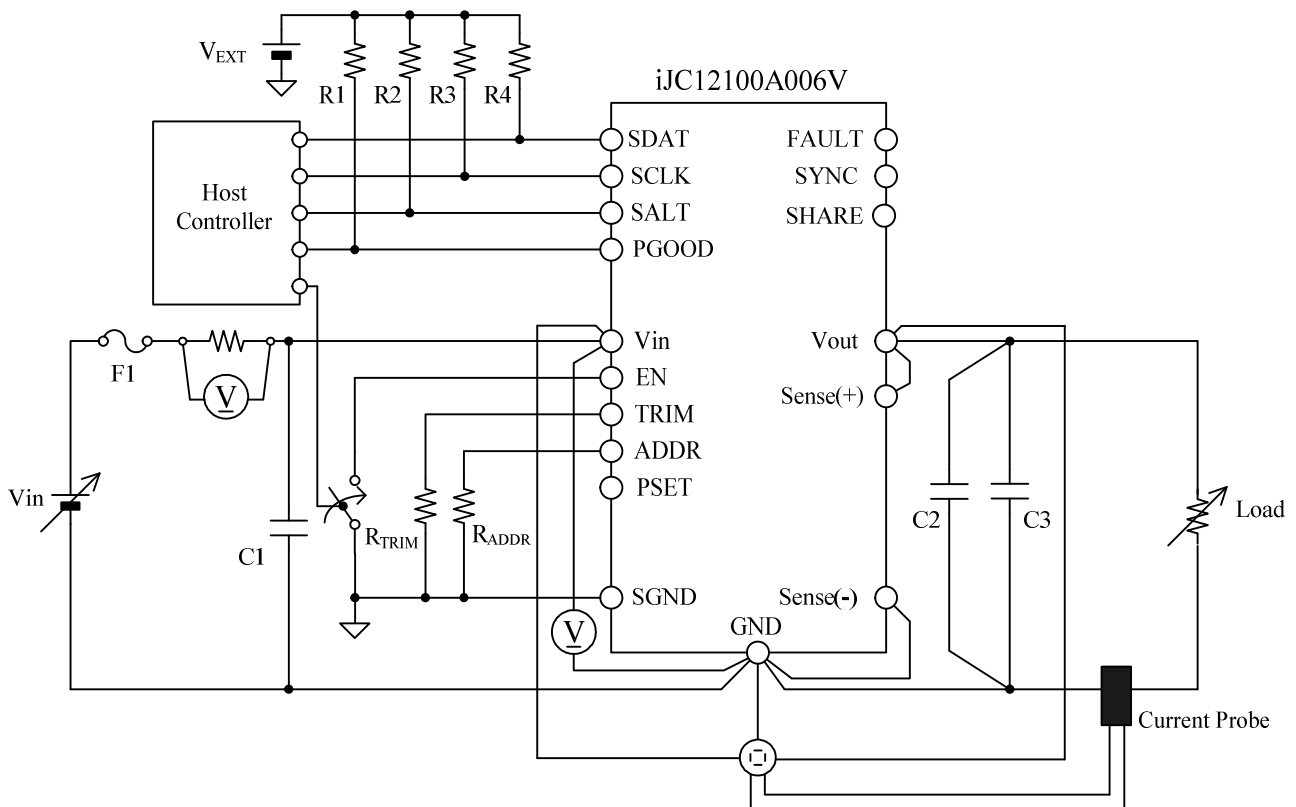
R_{TRIM} : 52.3k Ω

R_{ADDR} : Open

R5 : 50 Ω

測定回路2 Measurement Circuit 2

- 出力立ち上がり特性 Output rise characteristics
- 出力立ち下がり特性 Output fall characteristics
- 過電圧保護特性 Over voltage protection (OVP) characteristics
- 過渡応答(負荷急変)特性 Dynamic load response characteristics



C1 : 22 μ F Ceramic Capacitor \times 10 Parallel
 C2 : 100 μ F Ceramic Capacitor \times 10 Parallel
 C3 : 0.1 μ F Ceramic Capacitor

R1, R2, R3, R4 : 10k Ω
 R_{TRIM} : 52.3k Ω
 R_{ADDR} : Open

1.2 使用測定機器 List of equipment used

EQUIPMENT USED	MANUFACTURER	MODEL No.
DC Power source	KIKUSUI	PWR800L
DMM frame	Agilent	34970A
DMM unit	Agilent	34901A
Shunt register	YOKOGAWA	Model2215 20A type
Shunt register	YOKOGAWA	Model2215 200A type
Electronic Load	KEISOKU GIKEN	ELL-1005
Digital Oscilloscope	Lecroy	LT364L

2. 特性データ Characteristics

2.1 静特性 Steady state data

(1) 入力変動、負荷変動、温度変動 Line regulation, Load regulation, Temperature drift

$V_o = 0.6\text{ V}$

1. Line regulation and Load regulation

Condition $T_a : 25^\circ\text{C}$

$I_o \setminus V_{in}$	8VDC	12VDC	14VDC	Line regulation	
0%	0.6009V	0.6007V	0.6000V	0.9mV	0.2%
50%	0.6015V	0.6005V	0.6009V	1.0mV	0.2%
100%	0.6013V	0.6020V	0.6015V	0.7mV	0.1%
Load regulation	0.7mV	1.4mV	1.5mV		
	0.1%	0.2%	0.3%		

2. Temperature drift

Conditions $V_{in} : 12\text{VDC}$
 $I_o : 100\%$

T_a	-40°C	$+25^\circ\text{C}$	$+85^\circ\text{C}$	Temperature stability	
V_o	0.5991V	0.6020V	0.5987V	3.3mV	0.6%

$V_o = 1.0\text{ V}$

1. Line regulation and Load regulation

Condition $T_a : 25^\circ\text{C}$

$I_o \setminus V_{in}$	8VDC	12VDC	14VDC	Line regulation	
0%	0.9993V	0.9987V	0.9986V	0.7mV	0.1%
50%	0.9993V	0.9984V	0.9985V	0.9mV	0.1%
100%	0.9995V	0.9980V	0.9983V	1.5mV	0.2%
Load regulation	0.2mV	0.7mV	0.3mV		
	0.0%	0.1%	0.0%		

2. Temperature drift

Conditions $V_{in} : 12\text{VDC}$
 $I_o : 100\%$

T_a	-40°C	$+25^\circ\text{C}$	$+85^\circ\text{C}$	Temperature stability	
V_o	0.9983V	0.9980V	0.9966V	1.7mV	0.2%

$V_o = 1.5\text{ V}$

1. Line regulation and Load regulation

Condition $T_a : 25^\circ\text{C}$

$I_o \setminus V_{in}$	10VDC	12VDC	14VDC	Line regulation	
0%	1.5014V	1.5023V	1.5021V	0.9mV	0.1%
50%	1.5013V	1.5003V	1.5021V	1.8mV	0.1%
100%	1.5042V	1.5000V	1.5025V	4.2mV	0.3%
Load regulation	2.9mV	2.2mV	0.4mV		
	0.2%	0.1%	0.0%		

2. Temperature drift

Conditions $V_{in} : 12\text{VDC}$
 $I_o : 100\%$

T_a	-40°C	$+25^\circ\text{C}$	$+85^\circ\text{C}$	Temperature stability	
V_o	1.4943V	1.5000V	1.4983V	5.7mV	0.4%

(2) 出力電圧、出力リップル・ノイズ電圧 対 入力電圧

Output voltage and Output ripple and noise voltage vs. Input voltage

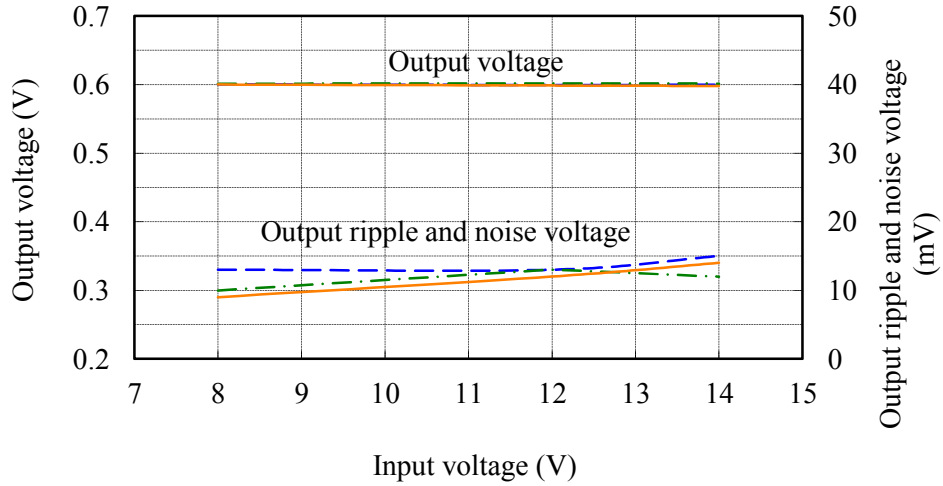
Conditions I_o : 100%

T_a : -40°C

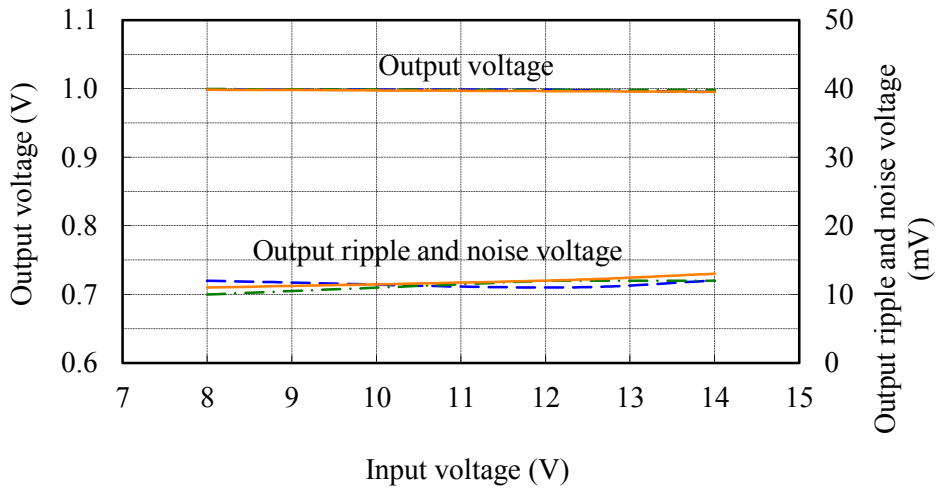
: 25°C

: 85°C

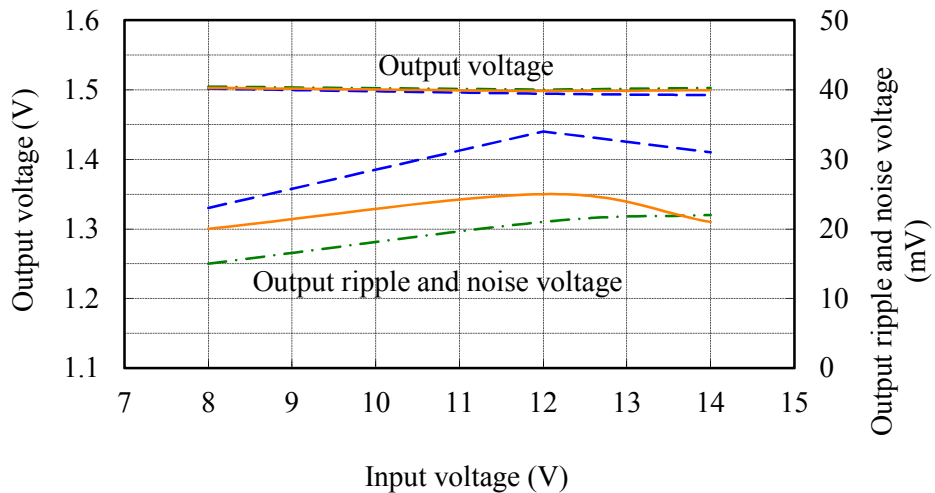
Vo = 0.6V



Vo = 1.0V



Vo = 1.5V

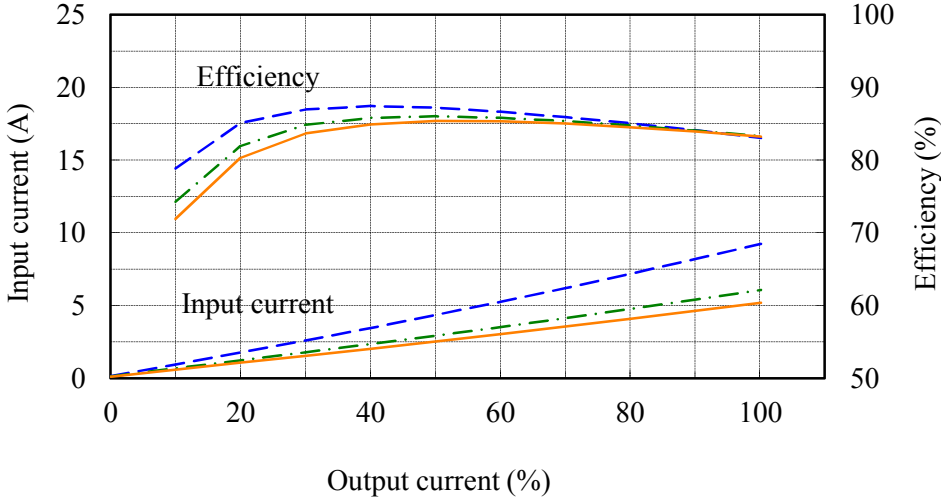


(3) 入力電流、効率 対 出力電流

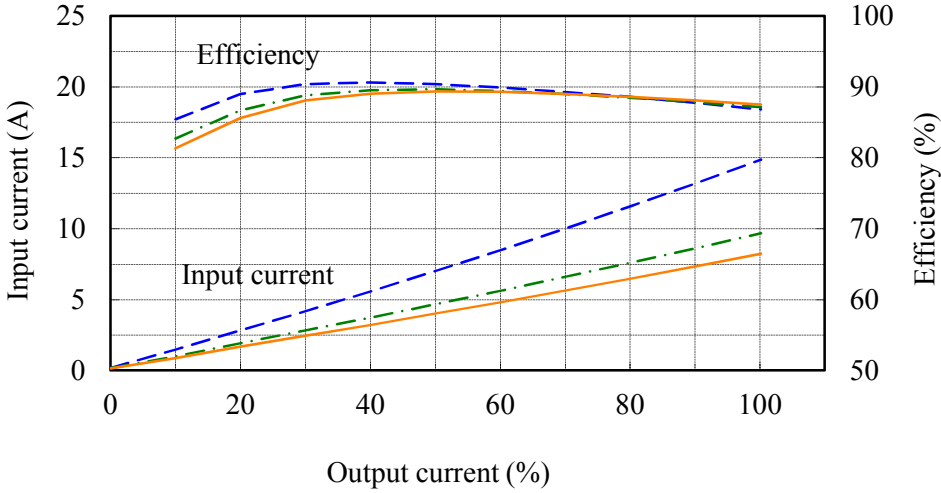
Input current and Efficiency vs. Output current

Conditions Ta : 25°C
Vin : 8VDC
 : 12VDC
 : 14VDC

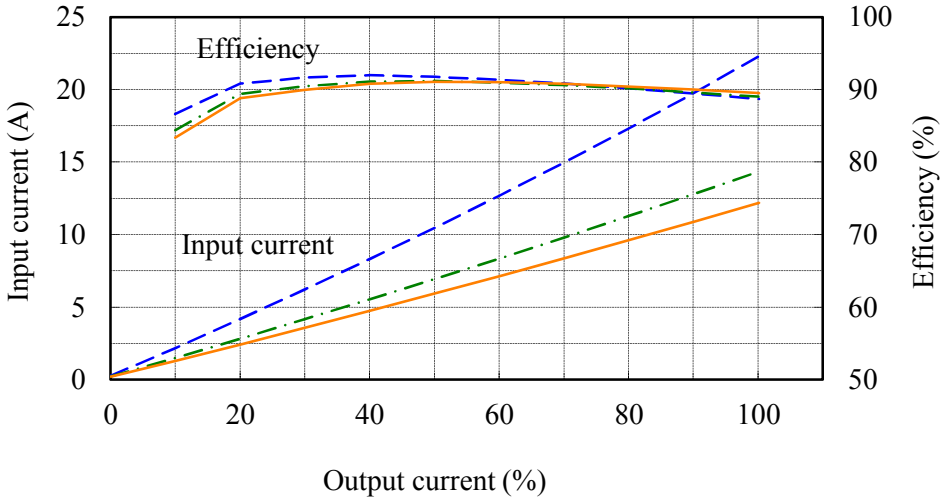
Vo = 0.6V



Vo = 1.0V



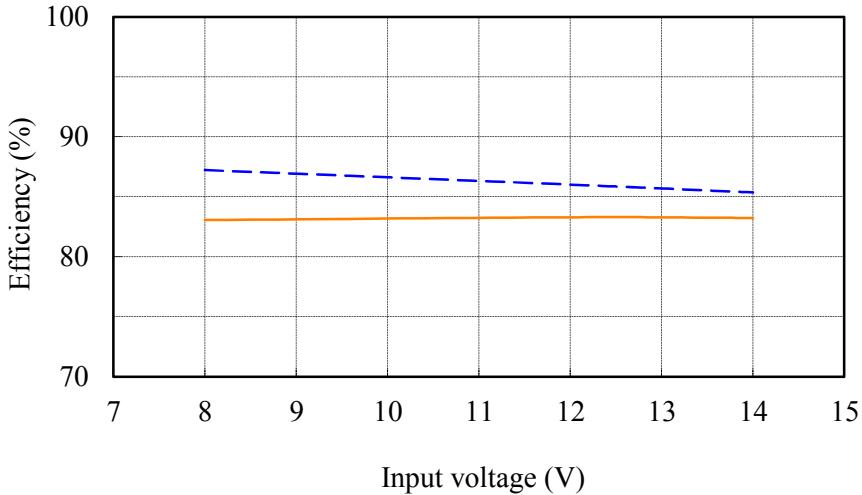
Vo = 1.5V



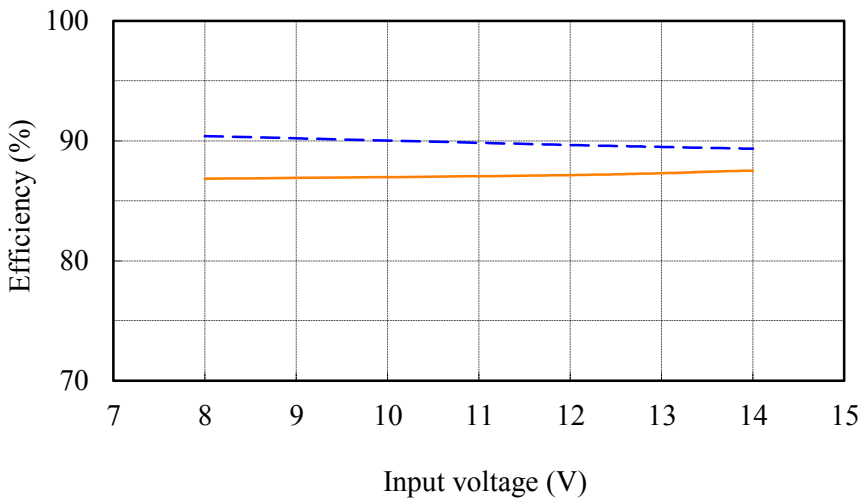
(4) 効率 対 入力電圧 Efficiency vs. Input voltage

Conditions Ta : 25°C
Io : 50%
: 100%

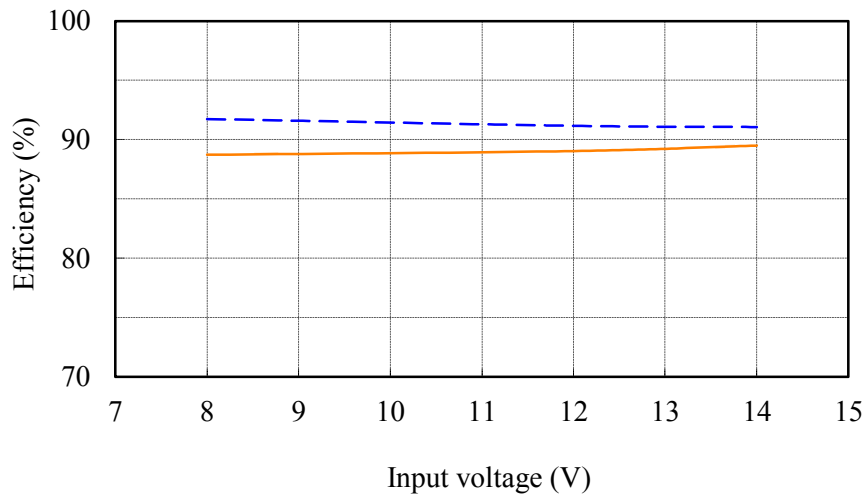
Vo = 0.6V



Vo = 1.0V



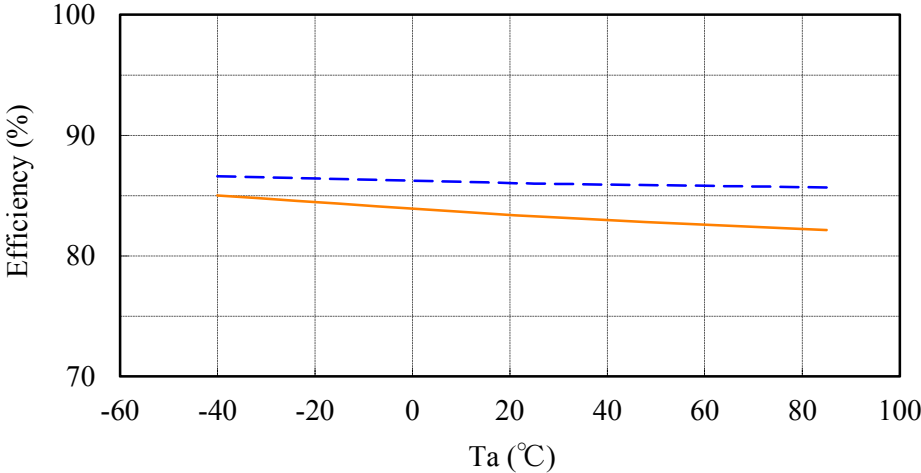
Vo = 1.5V



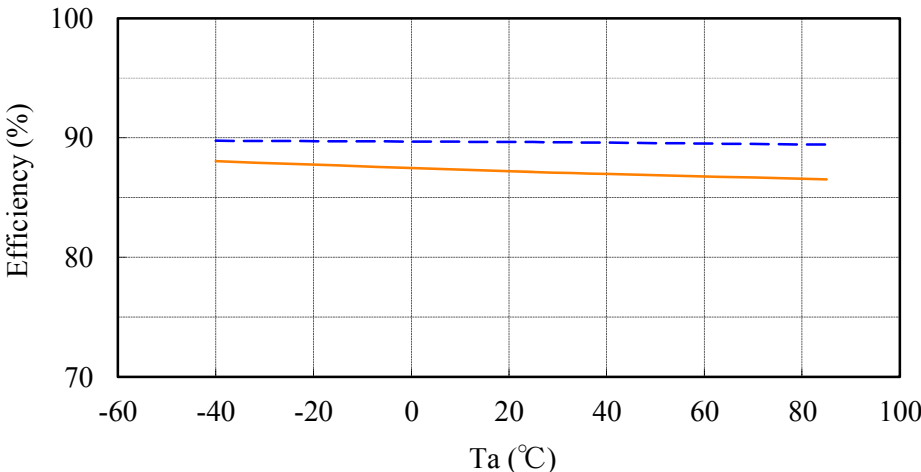
(5) 効率対温度 Efficiency vs. Temperature

Conditions Vin : 12VDC
Io : 50%
: 100%

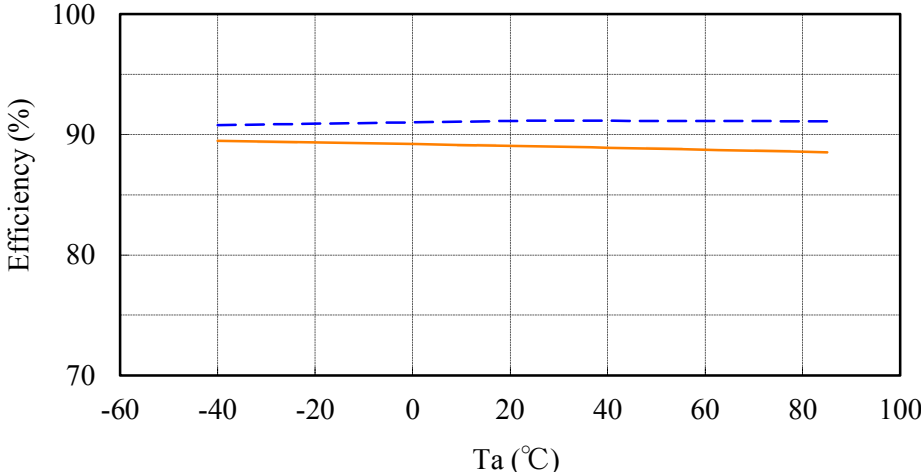
Vo = 0.6V



Vo = 1.0V

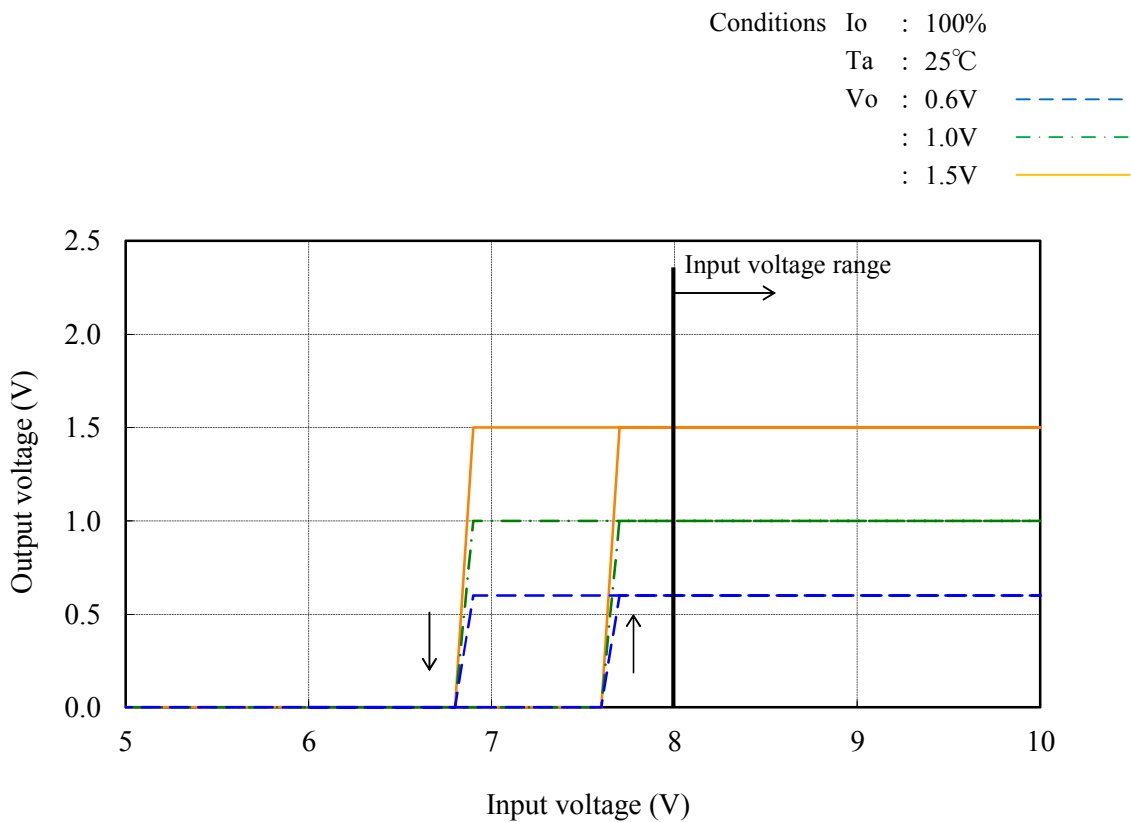


Vo = 1.5V

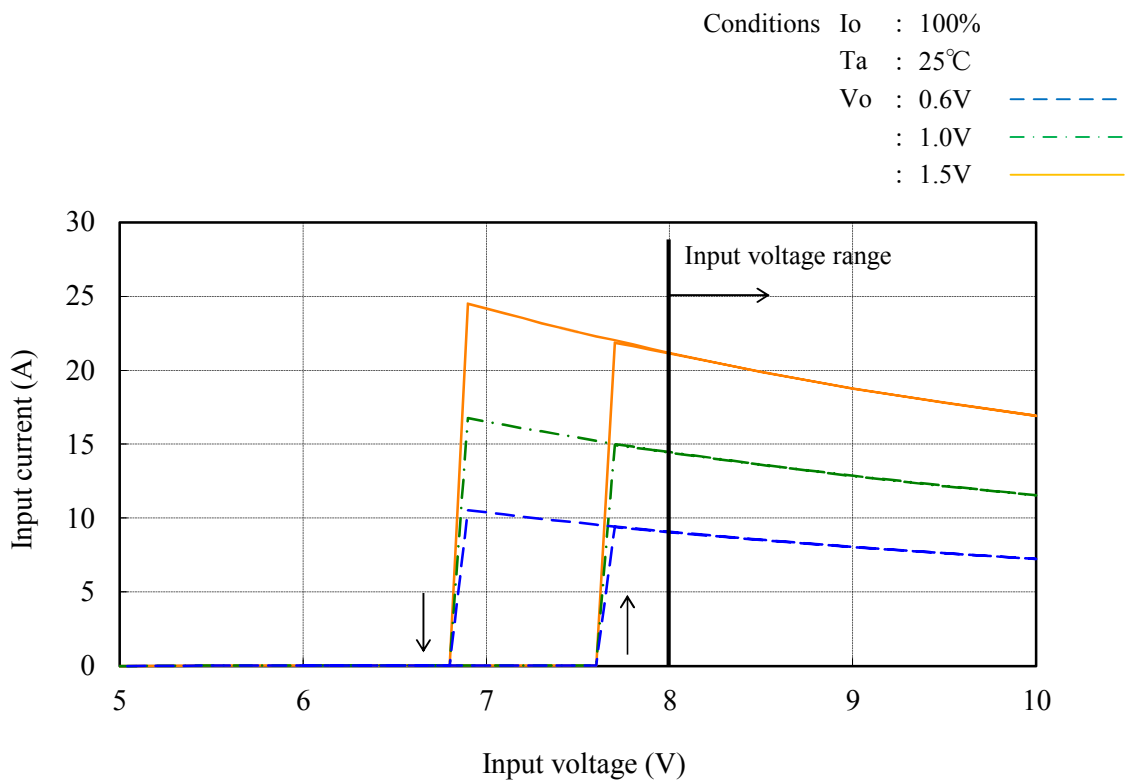


(6) 起動、停止電圧特性 Start and Stop voltage characteristics

出力電圧 対 入力電圧
Output voltage vs. Input voltage

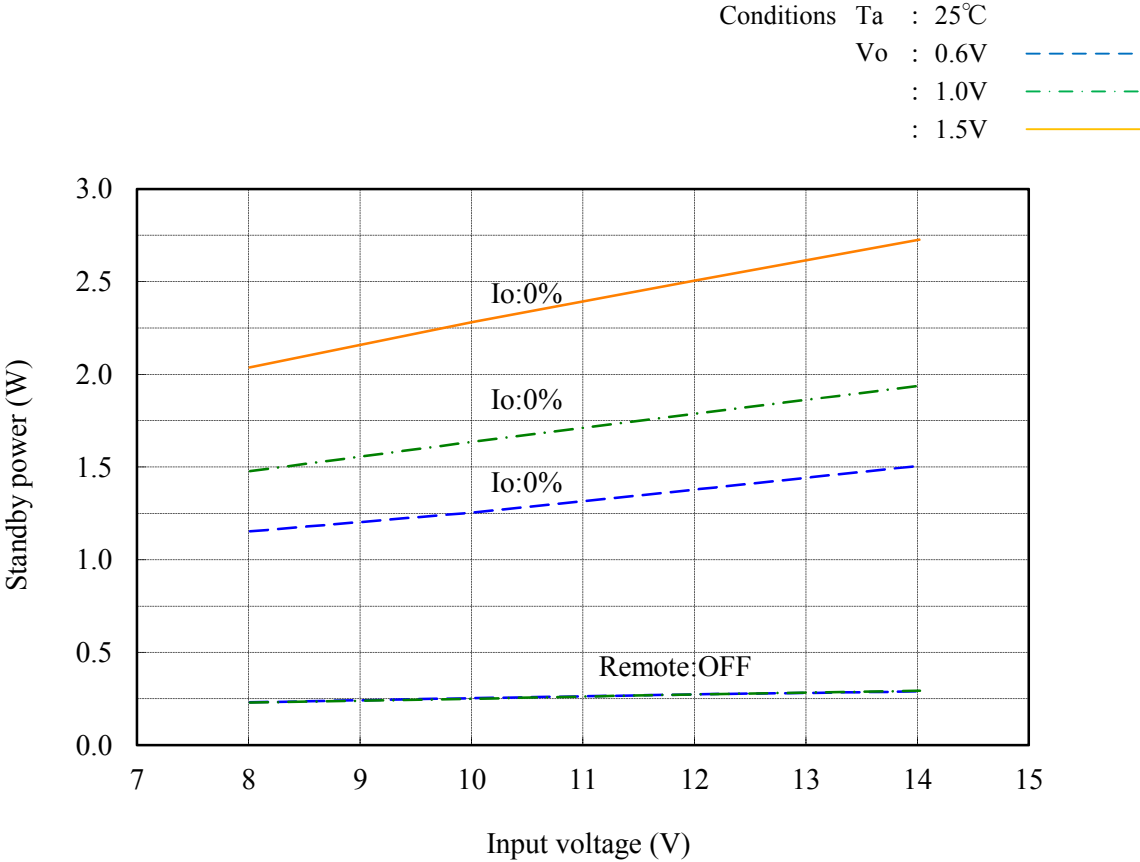


入力電流 対 入力電圧
Input current vs. Input voltage



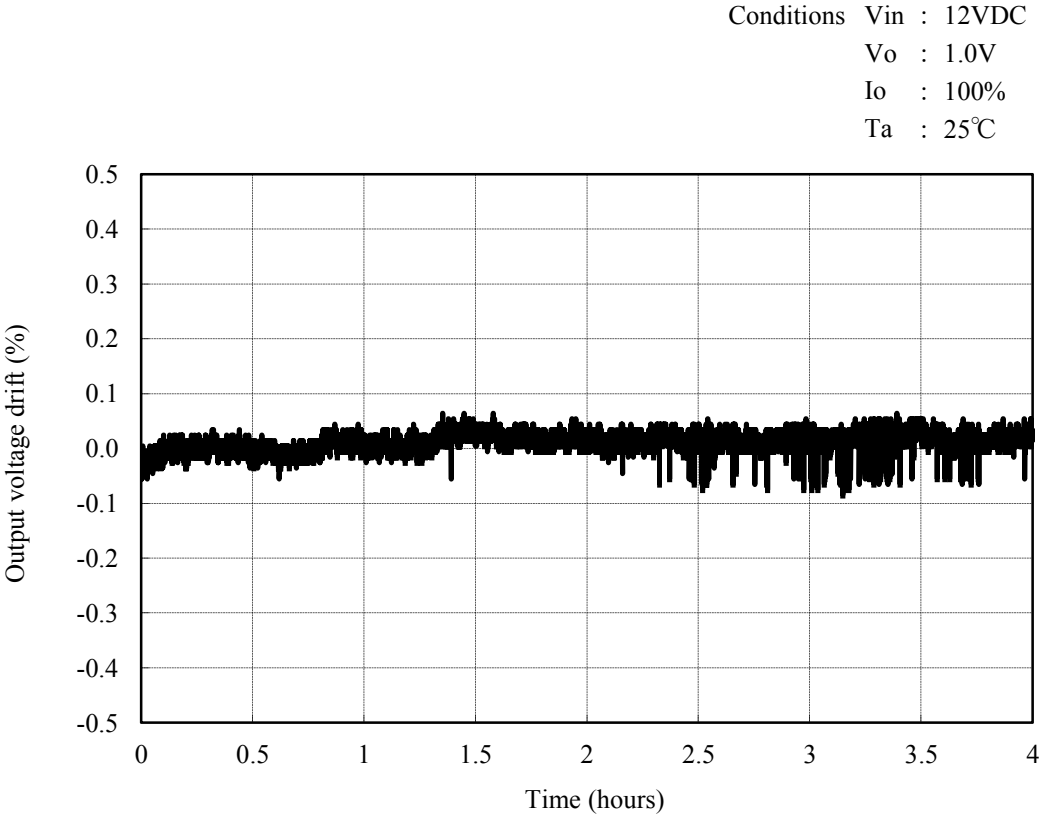
2.2 待機電力特性

Standby power characteristics



2.3 通電ドリフト特性

Warm up voltage drift characteristics

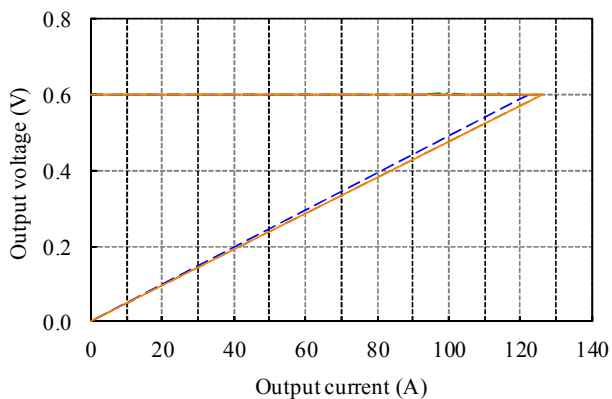


2.4 過電流保護特性 Over current protection (OCP) characteristics

入力電圧依存性
Input voltage dependence

Conditions Ta : 25°C
 Vin : 8VDC ---
 : 12VDC -.-
 : 14VDC —

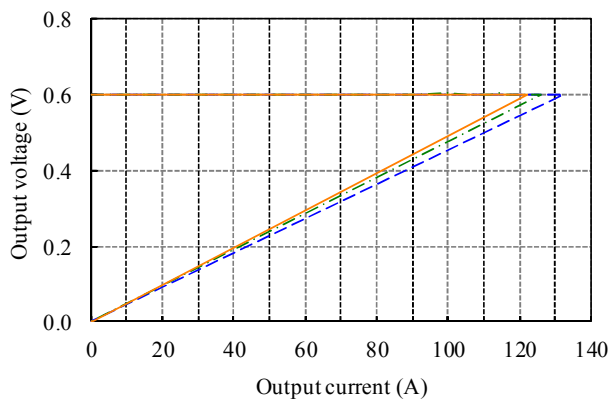
Vo= 0.6 V



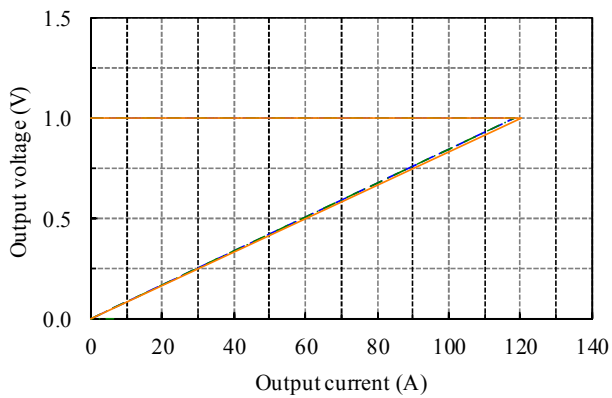
周囲温度依存性
Ambient temperature dependence

Conditions Vin : 12VDC
 Ta : -40°C ---
 : 25°C -.-
 : 85°C —

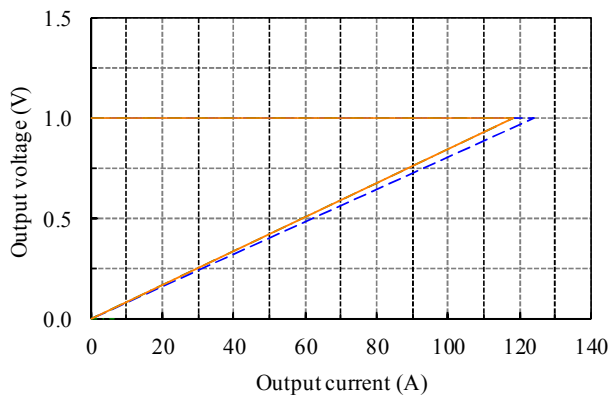
Vo= 0.6 V



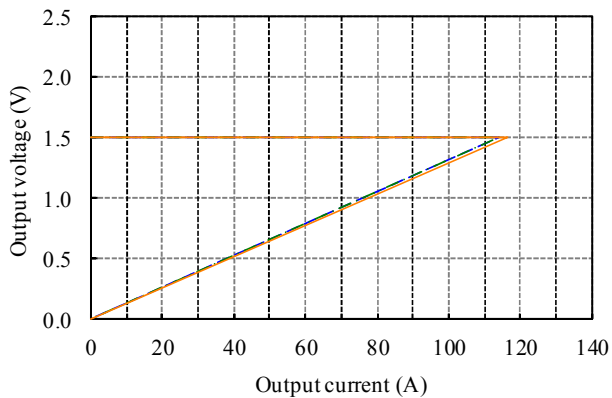
Vo= 1.0 V



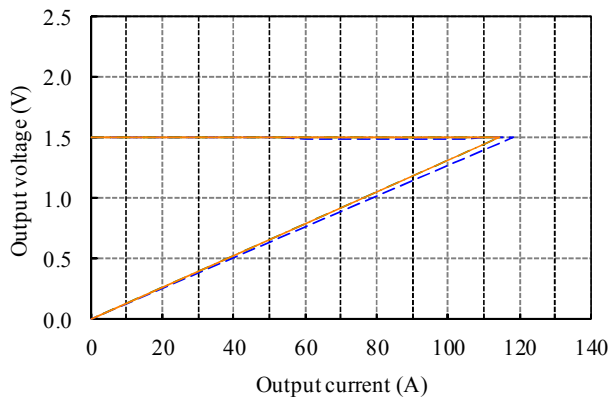
Vo= 1.0 V



Vo= 1.5 V



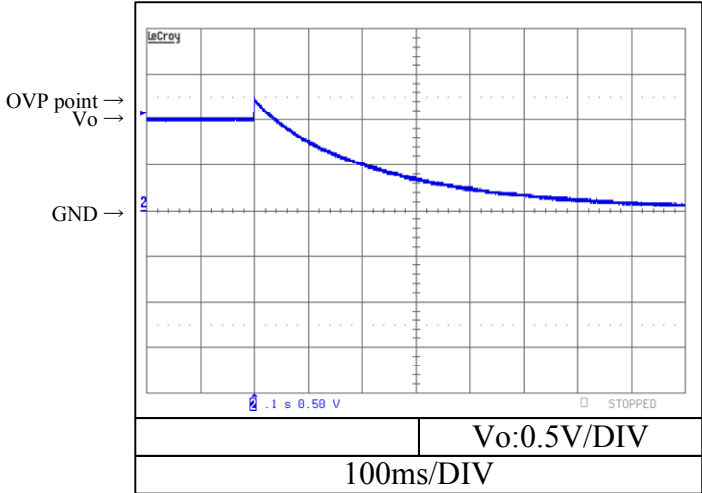
Vo= 1.5 V



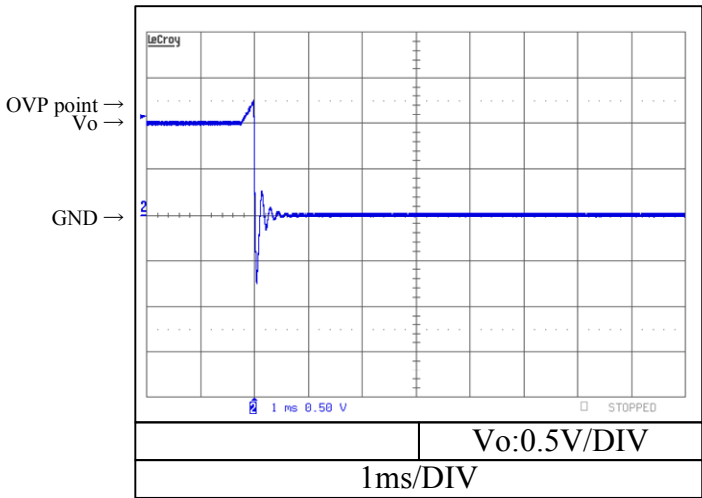
2.5 過電圧保護特性 Over voltage protection (OVP) characteristics

Conditions Vin : 12VDC
Vo : 1.0V
Ta : 25°C
OVP Setting : 1.2V

Io = 0%



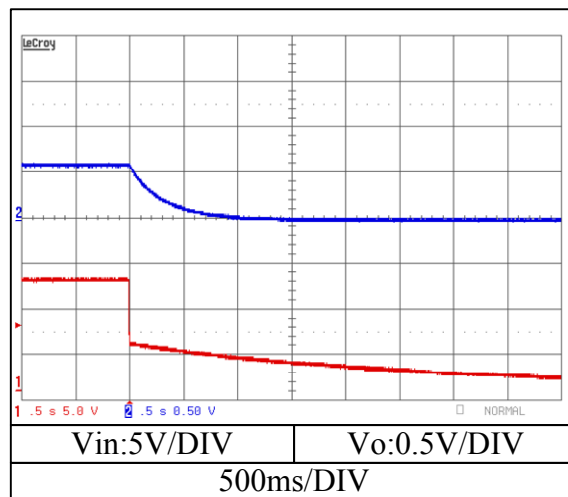
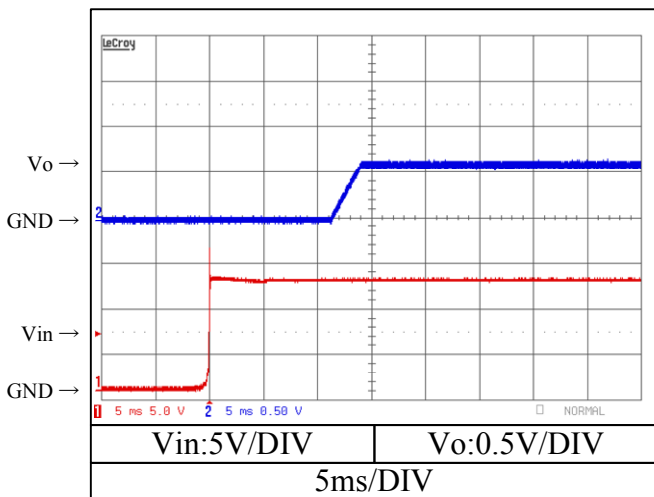
Io = 100%



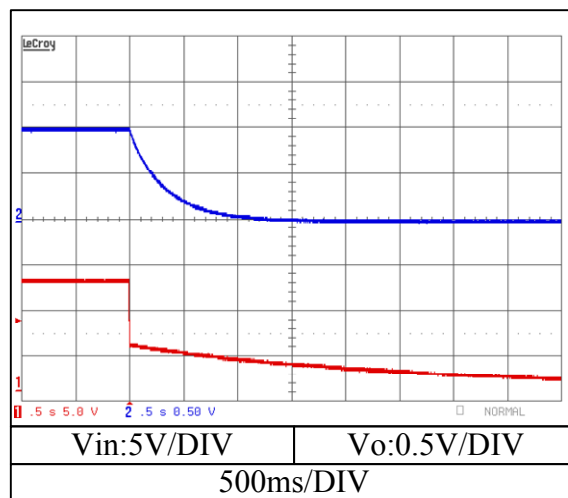
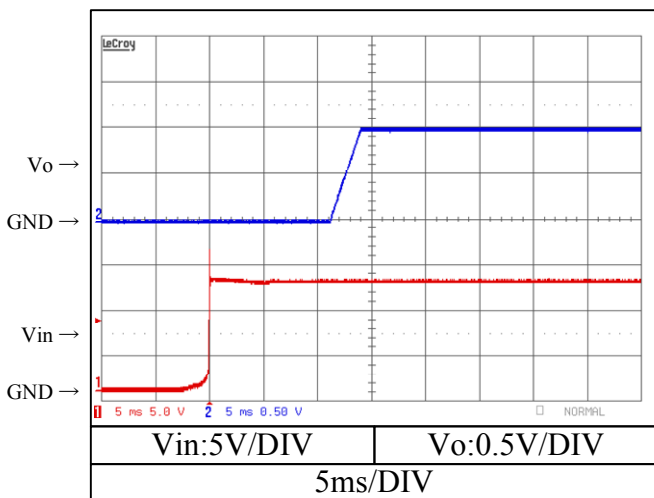
2.6 出力立ち上がり、立ち下がり特性 Output rise and fall characteristics

Conditions Vin : 12VDC
 Io : 0%
 Ta : 25°C

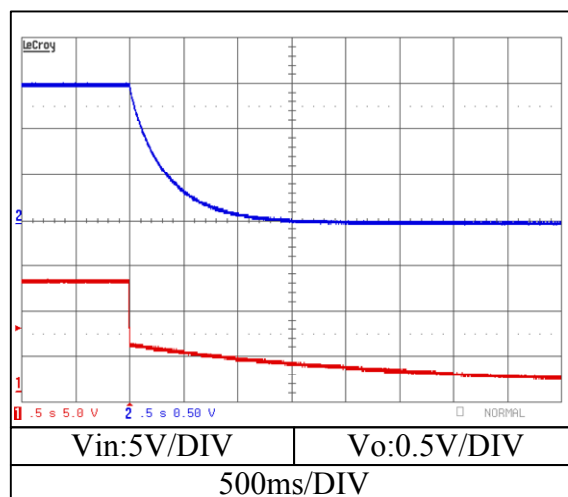
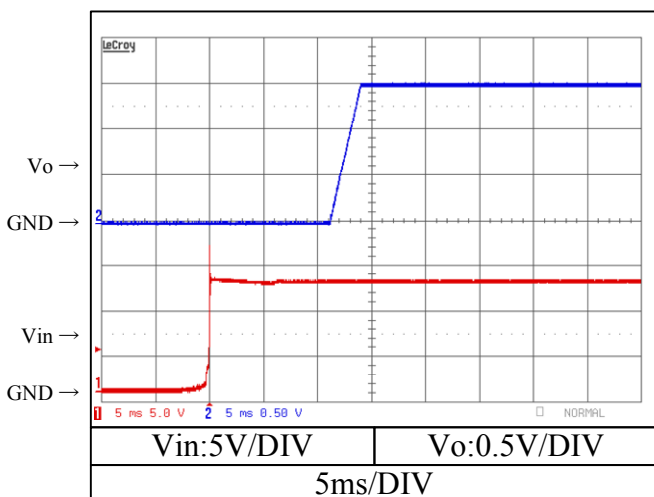
Vo = 0.6V



Vo = 1.0V



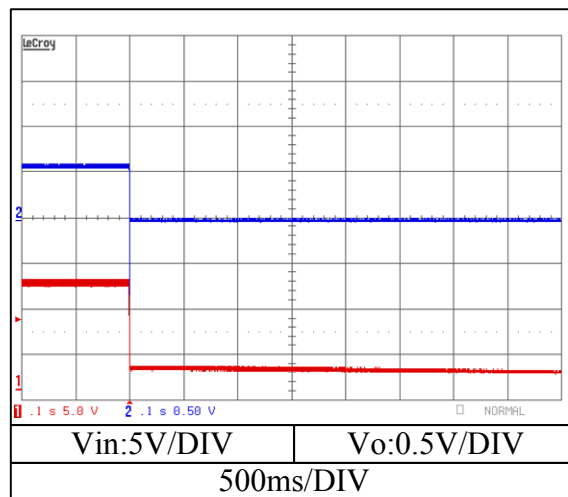
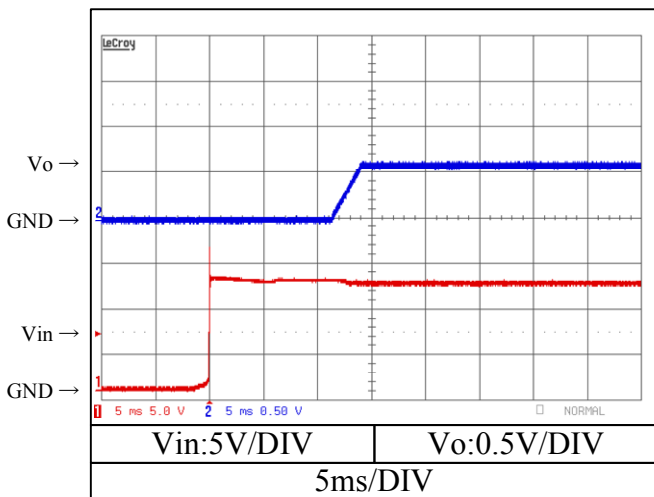
Vo = 1.5V



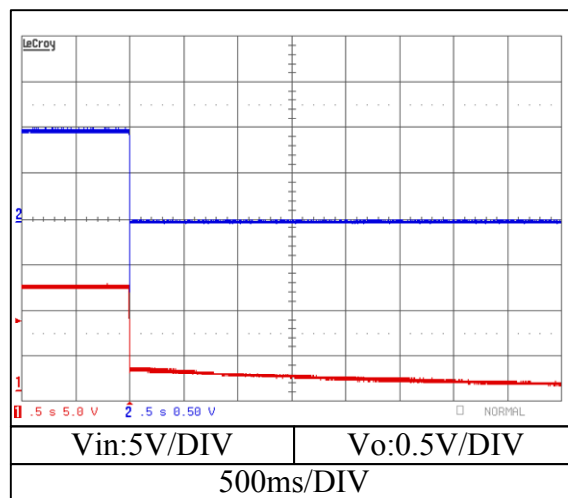
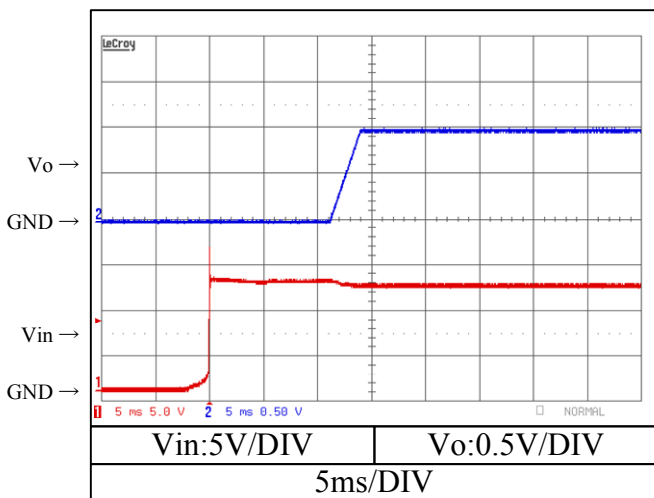
2.6 出力立ち上がり、立ち下がり特性 Output rise and fall characteristics

Conditions Vin : 12VDC
 Io : 100%
 Ta : 25°C

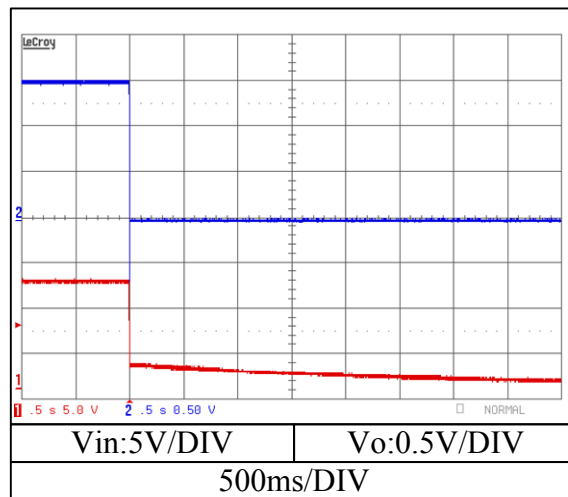
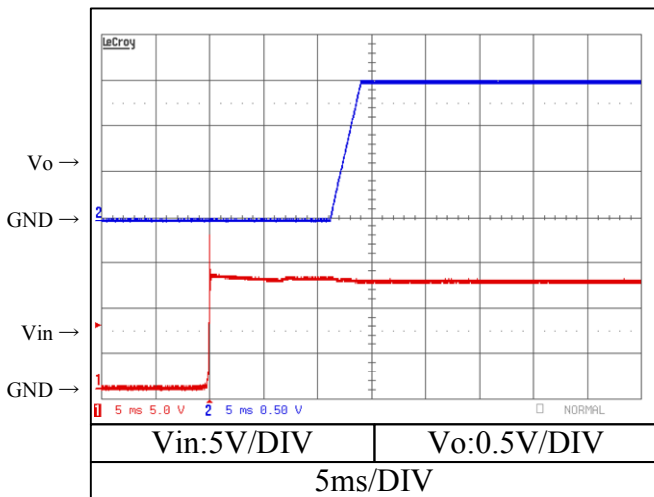
Vo = 0.6V



Vo = 1.0V



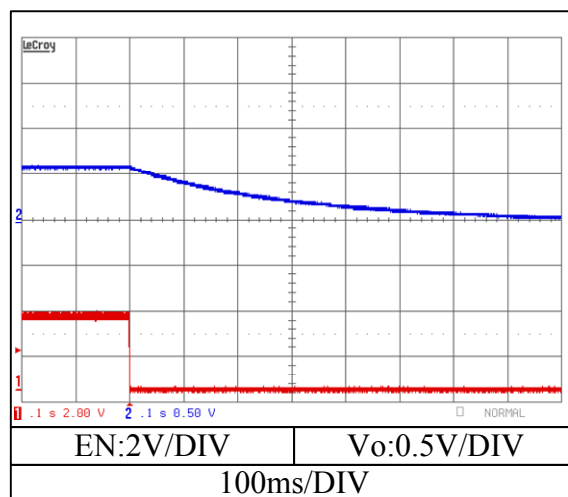
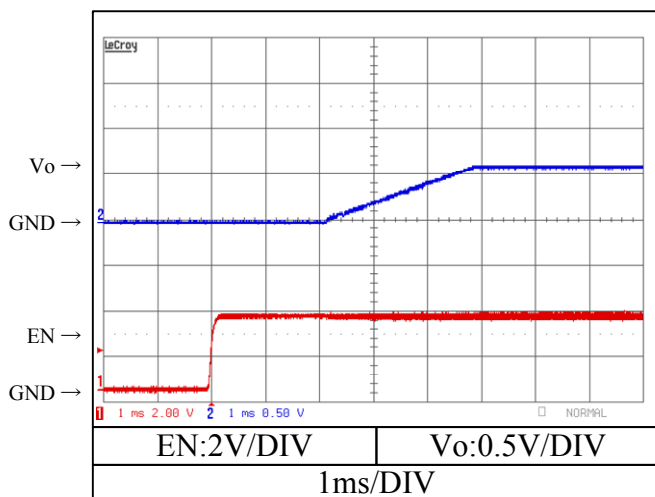
Vo = 1.5V



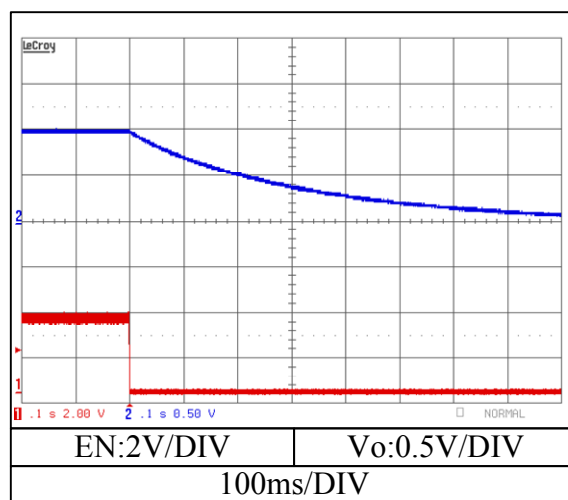
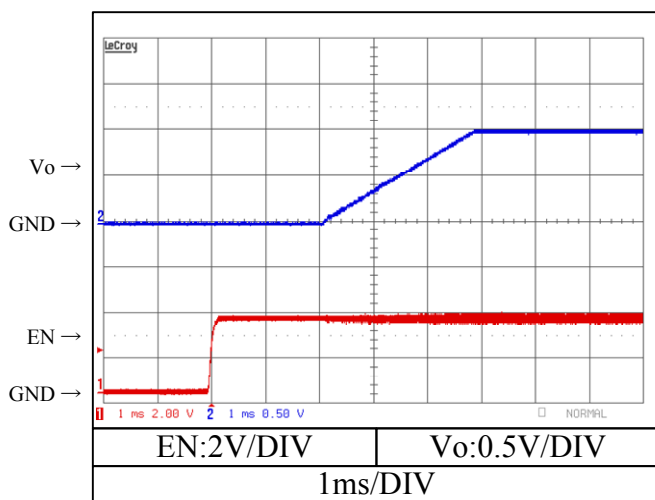
2.6 出力立ち上がり、立ち下がり特性 (リモートON/OFF時)
Output rise and fall characteristics with Remote ON/OFF

Conditions Vin : 12VDC
Io : 0%
Ta : 25°C

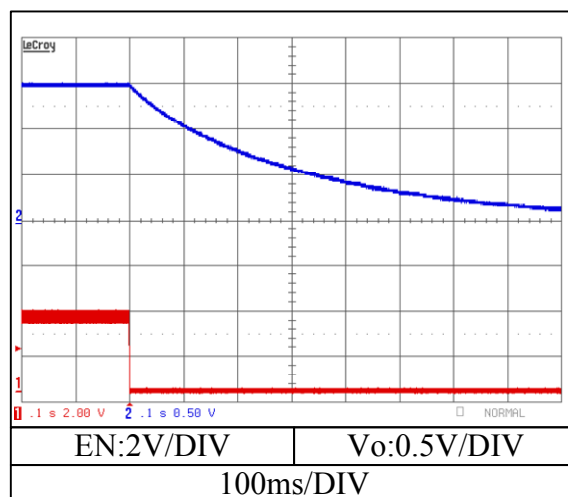
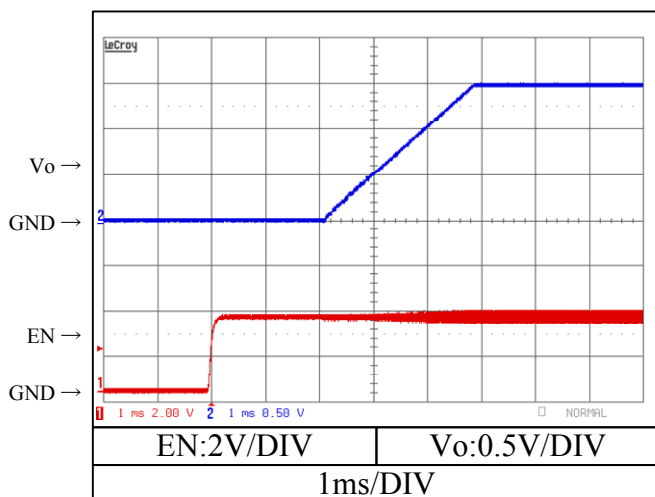
Vo = 0.6V



Vo = 1.0V



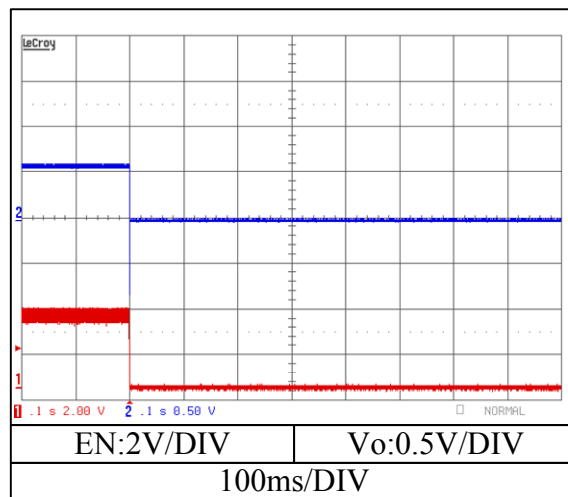
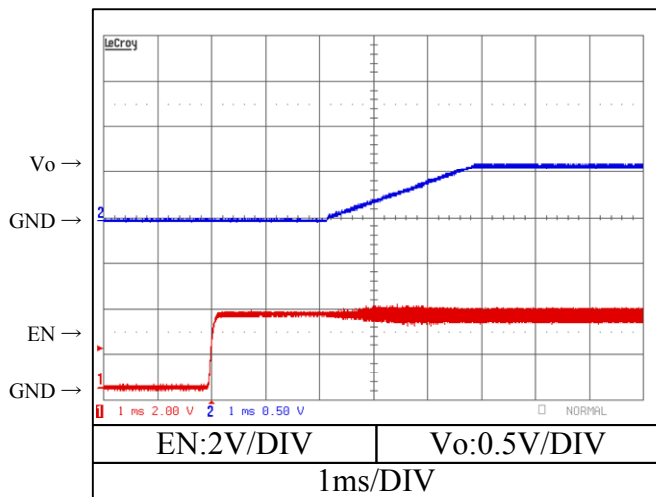
Vo = 1.5V



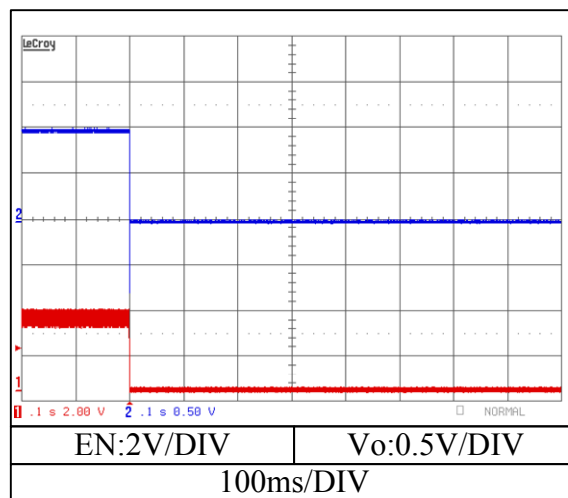
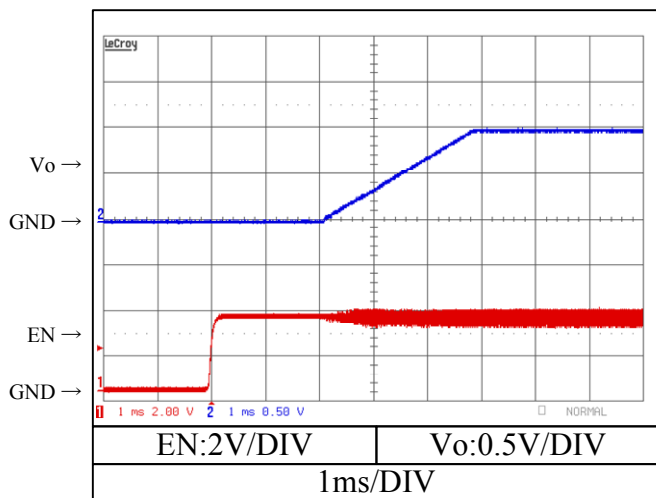
2.6 出力立ち上がり、立ち下がり特性 (リモートON/OFF時)
Output rise and fall characteristics with Remote ON/OFF

Conditions Vin : 12VDC
Io : 100%
Ta : 25°C

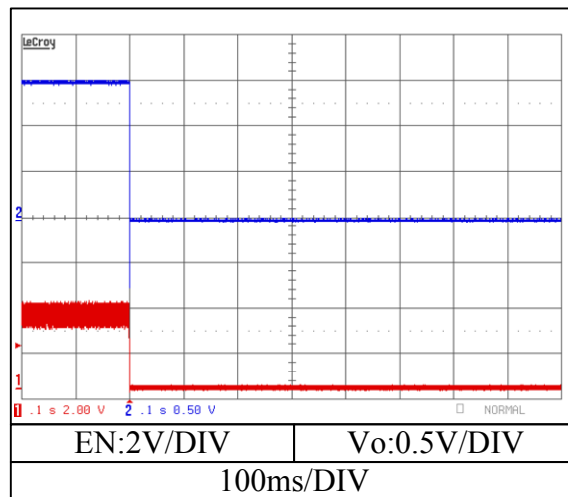
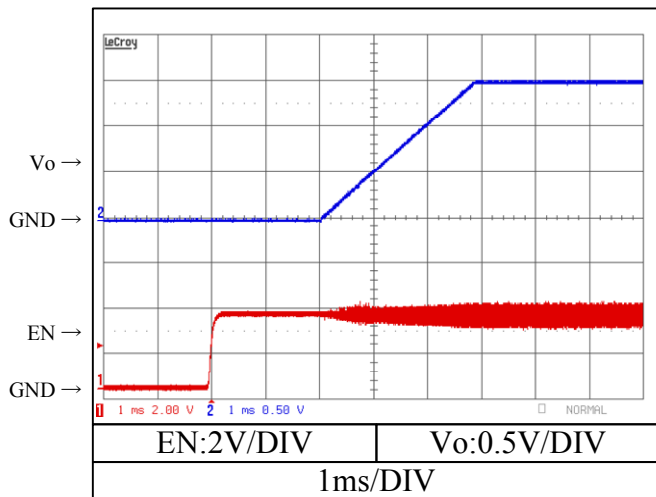
Vo = 0.6V



Vo = 1.0V



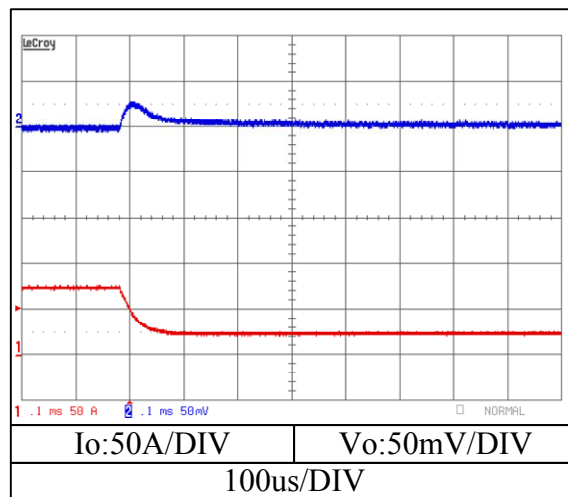
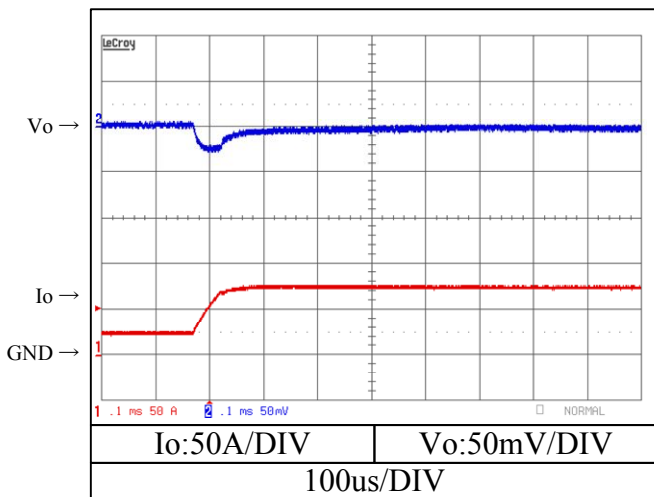
Vo = 1.5V



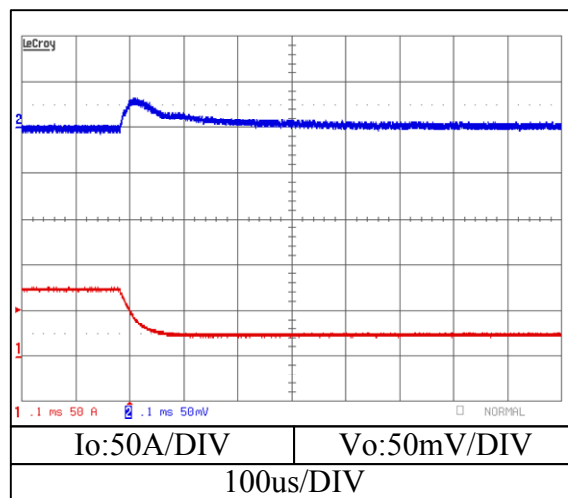
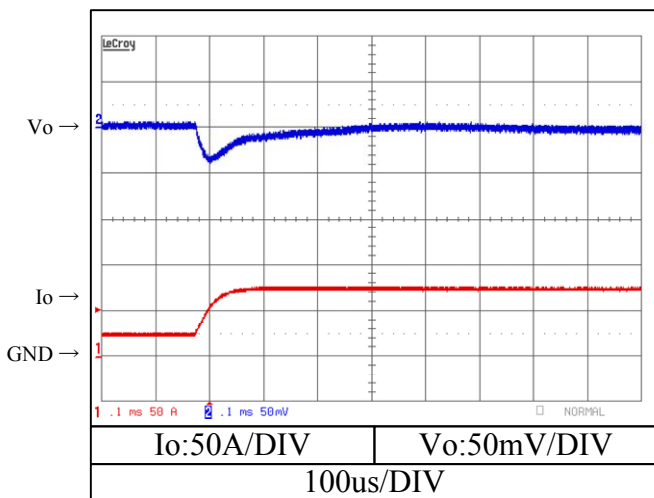
2.7 過渡応答(負荷急変)特性 Dynamic load response characteristics

Conditions Vin : 12VDC
 Io : 25%⇔75%
 Ta : 25°C

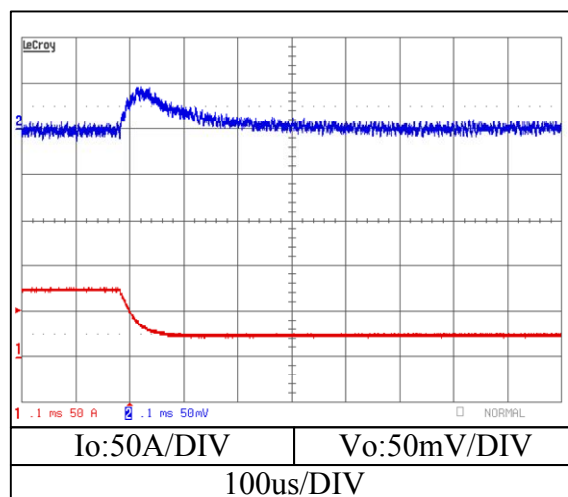
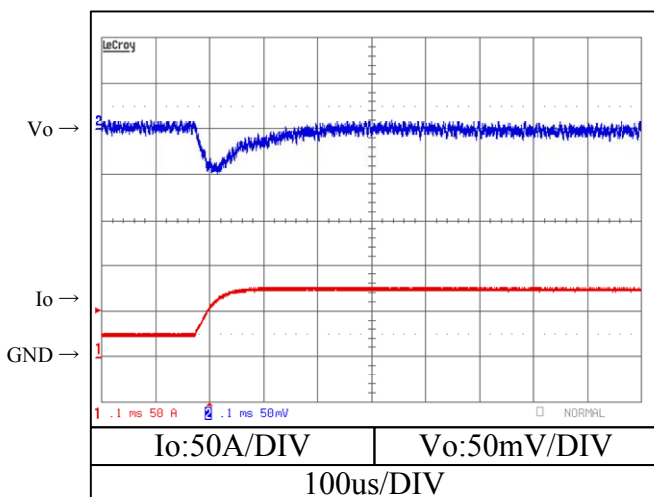
Vo = 0.6V



Vo = 1.0V



Vo = 1.5V



2.8 出力リップル、ノイズ波形 Output ripple and noise waveform

Conditions Vin : 12VDC
Io : 100%
Ta : 25°C

