iCG12006A007V-***-R

EVALUATION DATA

型式データ

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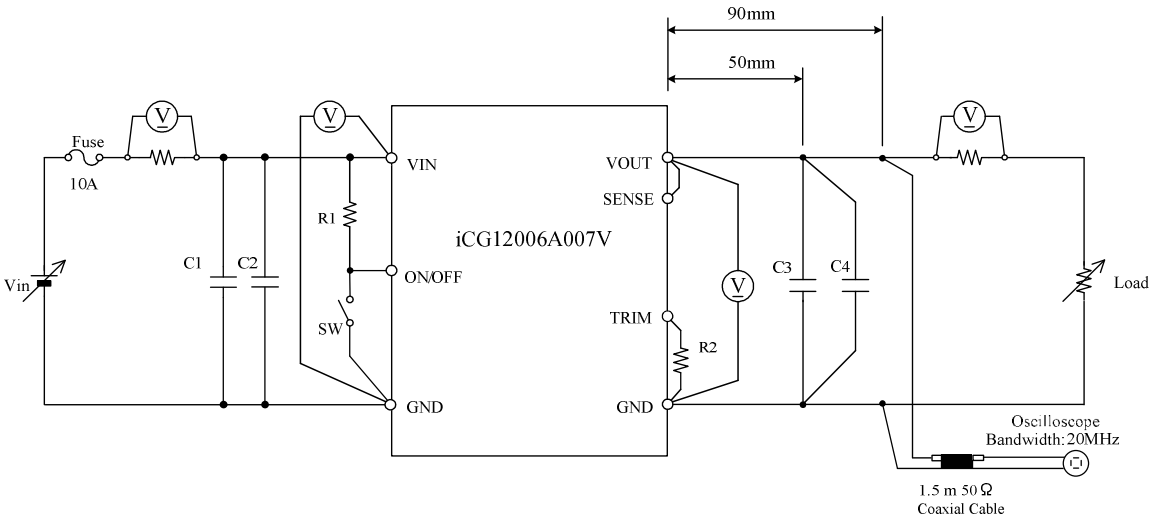
使用記号　Terminology used

	Definition		
Vin	·····	入力電圧	Input voltage
Vo	·····	出力電圧	Output voltage
V ON/OFF	·····	ON/OFF 電圧	ON/OFF voltage
Iin	·····	入力電流	Input current
Io	·····	出力電流	Output current
Ta	·····	周囲温度	Ambient temperature

1. 評価方法 Evaluation Method

1.1 測定回路 Measurement Circuits

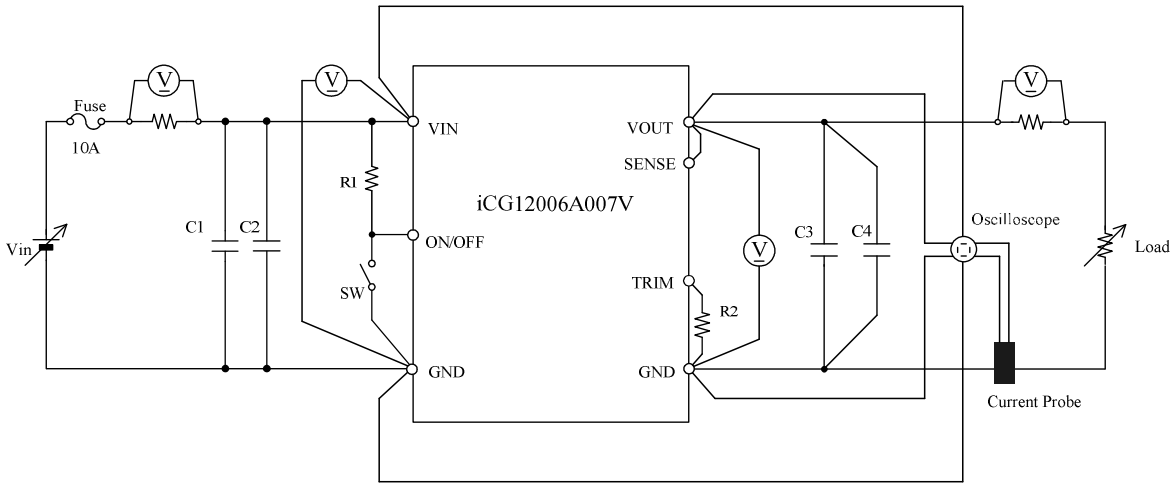
(1) 基本接続図 (静特性、過電流保護特性、出力リップル・ノイズ波形・その他)
Basic connection (Steady state characteristics, Over current protection (OCP) characteristics, and Output ripple and noise waveform etc.)



C1 : 22μF Ceramic Capacitor
C2 : 22μF Ceramic Capacitor
C3 : 22μF Ceramic Capacitor
C4 : 22μF Ceramic Capacitor

R1 : 20kΩ
R2 :Vo= 1.8V - 4.88kΩ
:Vo= 3.3V - 2.18kΩ

(2) 過渡応答
Dynamic response characteristics



C1 : 22μF Ceramic Capacitor
C2 : 22μF Ceramic Capacitor
C3 : 22μF Ceramic Capacitor
C4 : 22μF Ceramic Capacitor

R1 : 20kΩ
R2 :Vo= 1.8V - 4.88kΩ
:Vo= 3.3V - 2.18kΩ

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

Vo= 1.8 V

1. Line regulation and Load regulation　　Condition　Ta : 25℃

Io \ Vin	4.5VDC	7VDC	12VDC	14VDC	Line regulation	
0%	1.8013V	1.8005V	1.8010V	1.8012V	0.8mV	0.04%
50%	1.7986V	1.7972V	1.7969V	1.7969V	1.7mV	0.09%
100%	1.7964V	1.7947V	1.7936V	1.7934V	3.0mV	0.17%
Load	4.9mV	5.8mV	7.4mV	7.8mV		
regulation	0.27%	0.32%	0.41%	0.43%		

2. Temperature drift　　Conditions　Vin : 12VDC
Io : 100%

Ta	-40℃	+25℃	+85℃	Temperature stability	
Vo	1.7980V	1.7936V	1.7899V	8.1mV	0.45%

Vo= 3.3 V

1. Line regulation and Load regulation　　Condition　Ta : 25℃

Io \ Vin	7VDC	12VDC	14VDC	Line regulation	
0%	3.3008V	3.3014V	3.3017V	0.9mV	0.03%
50%	3.2972V	3.2957V	3.2957V	1.5mV	0.05%
100%	3.2950V	3.2917V	3.2913V	3.7mV	0.11%
Load	5.8mV	9.7mV	10.4mV		
regulation	0.18%	0.29%	0.32%		

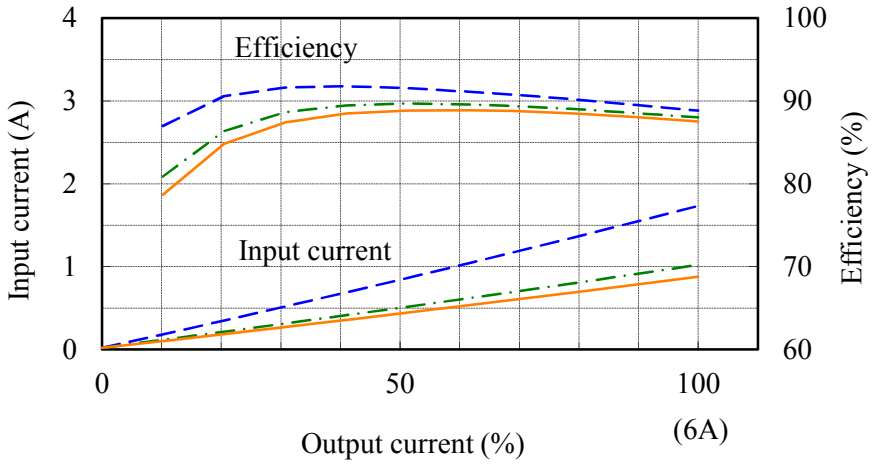
2. Temperature drift　　Conditions　Vin : 12VDC
Io : 100%

Ta	-40℃	+25℃	+85℃	Temperature stability	
Vo	3.3005V	3.2917V	3.2824V	18.1mV	0.55%

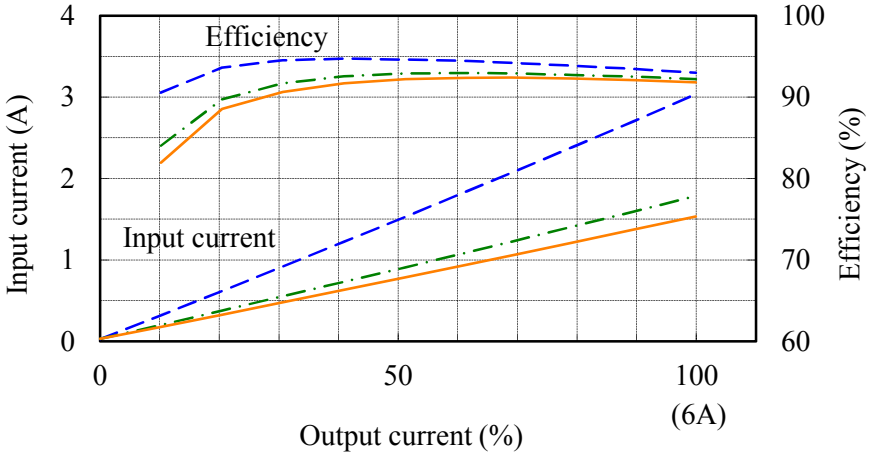
(2) 入力電流、効率 対 出力電流
Input current and Efficiency vs. Output current

Conditions Vin : 7 VDC
: 12 VDC
: 14 VDC
Ta : 25 ℃

Vo= 1.8 V



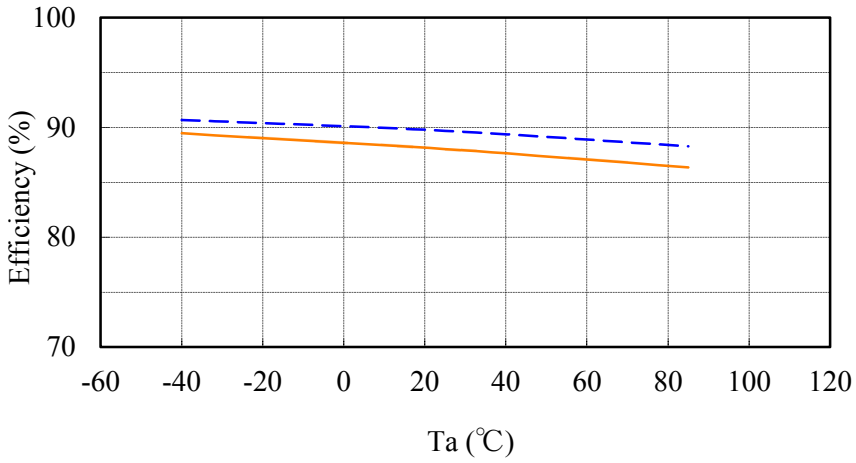
Vo= 3.3 V



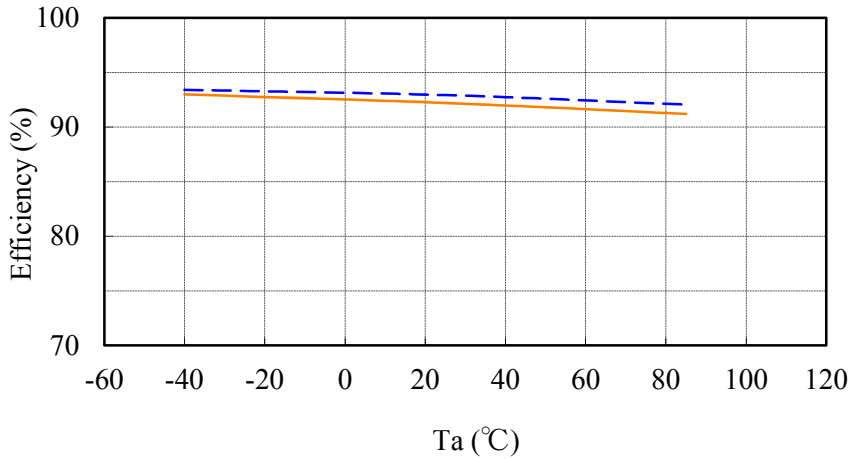
(3) 効率 対 温度
Efficiency vs. Temperature

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

Vo= 1.8 V



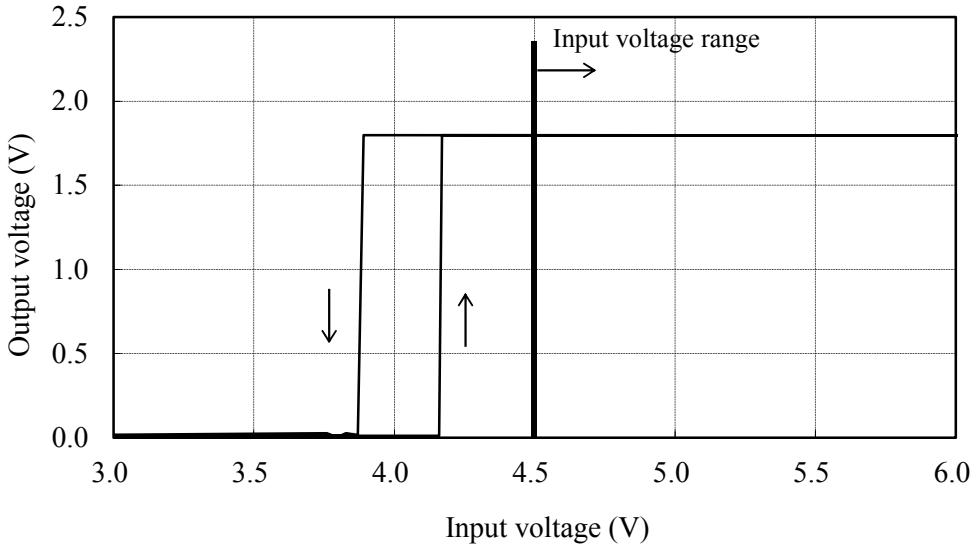
Vo= 3.3 V



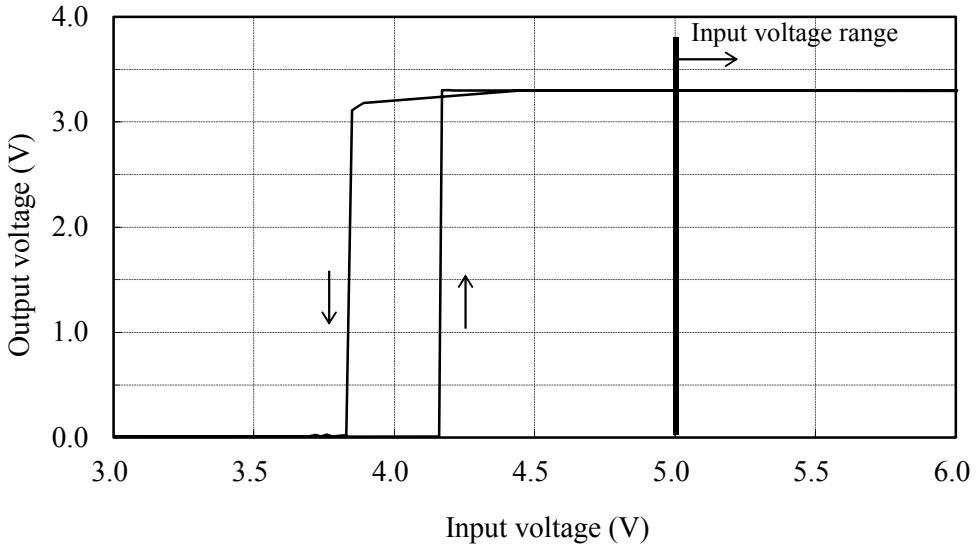
(4) 起動、停止電圧特性
Start and Stop voltage characteristics

Conditions Io : 100 %
Ta : 25 ℃

Vo= 1.8 V



Vo= 3.3 V



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

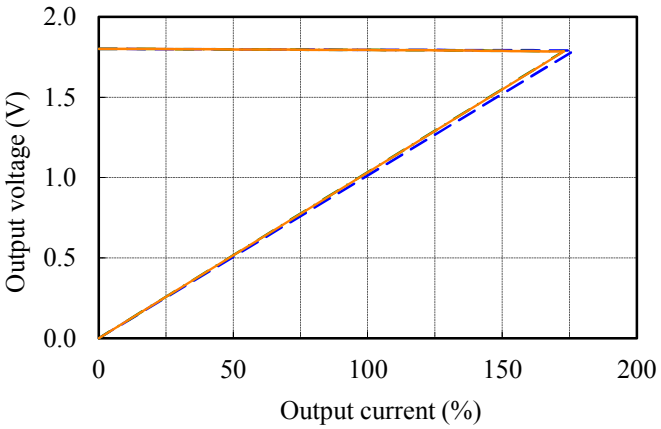
入力電圧依存性
Input voltage dependence

Conditions Vin : 7 VDC
: 12 VDC
: 14 VDC
Ta : 25 ℃

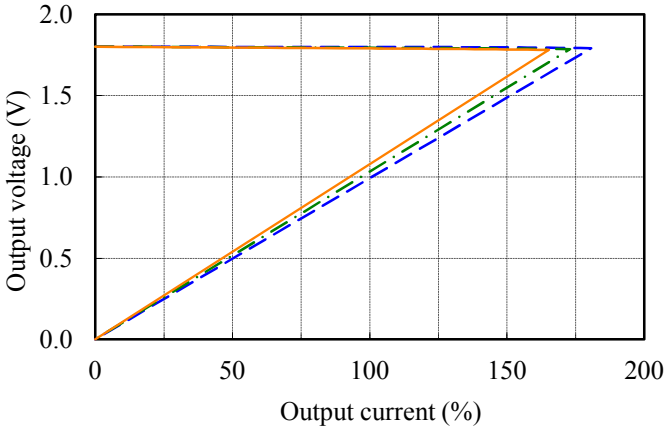
周囲温度依存性
Ambient temperature dependence

Conditions Vin : 12 VDC
Ta : -40 ℃
: 25 ℃
: 85 ℃

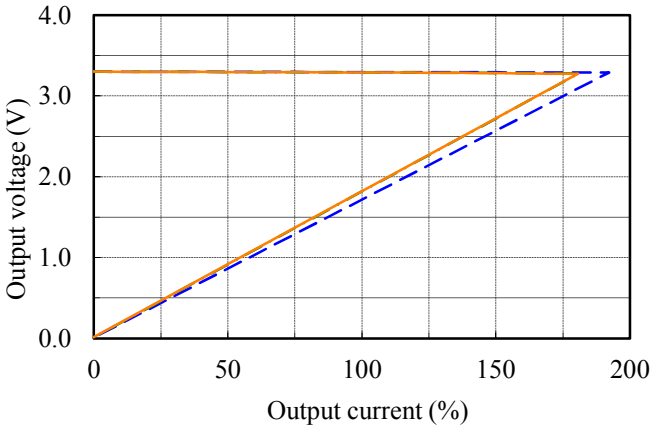
Vo= 1.8 V



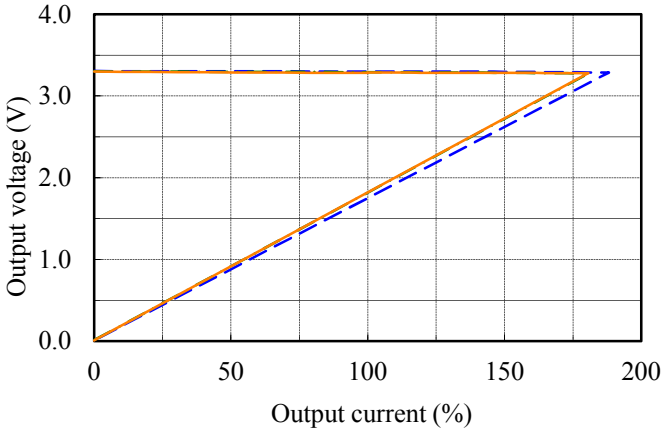
Vo= 1.8 V



Vo= 3.3 V



Vo= 3.3 V

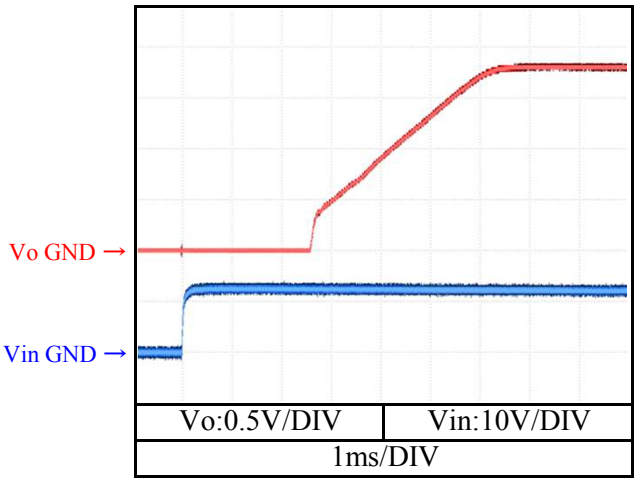


2.3 出力立ち上がり特性
Output rise characteristics

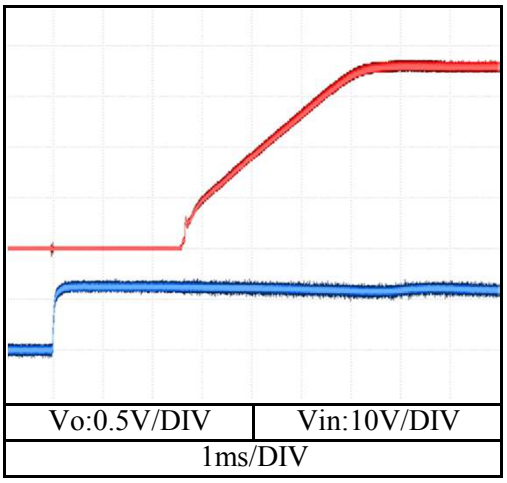
Conditions Vin : 12 VDC
Ta : 25 ℃

Vo= 1.8 V

Io=0%

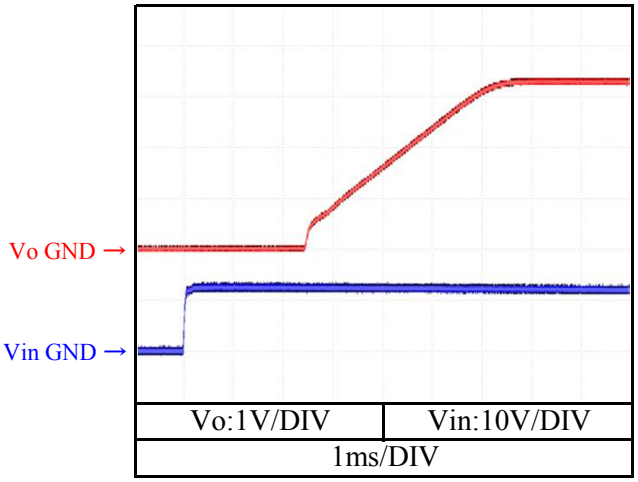


Io=100%

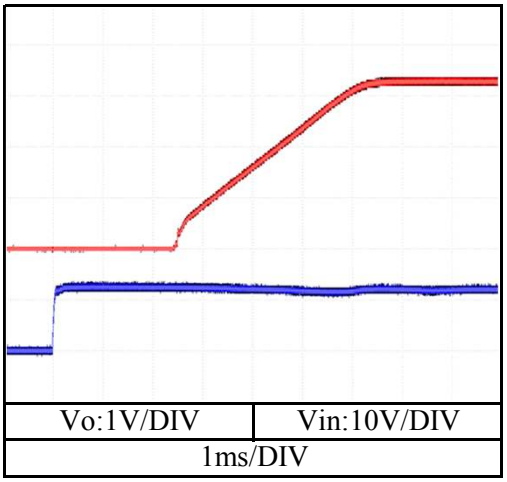


Vo= 3.3 V

Io=0%



Io=100%

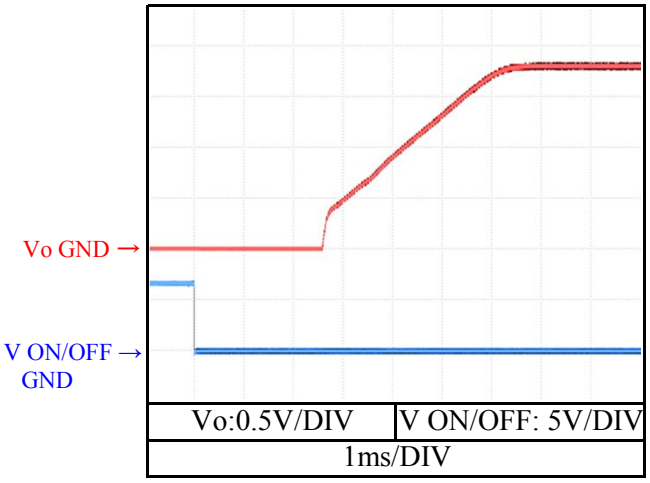


2.3 出力立ち上がり特性 （リモートON/OFF時）
Output rise characteristics with Remote ON/OFF

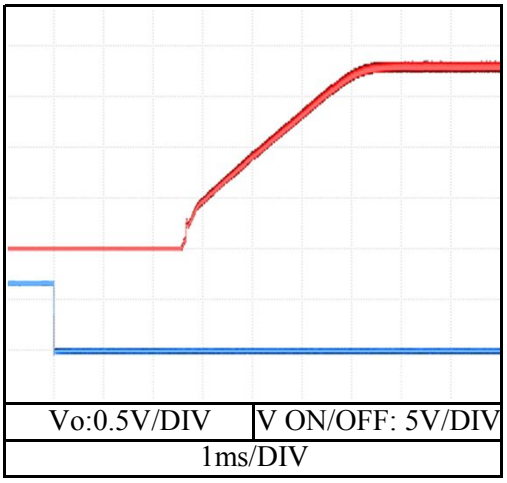
Conditions Vin : 12 VDC
Ta : 25 ℃

Vo= 1.8 V

Io=0%

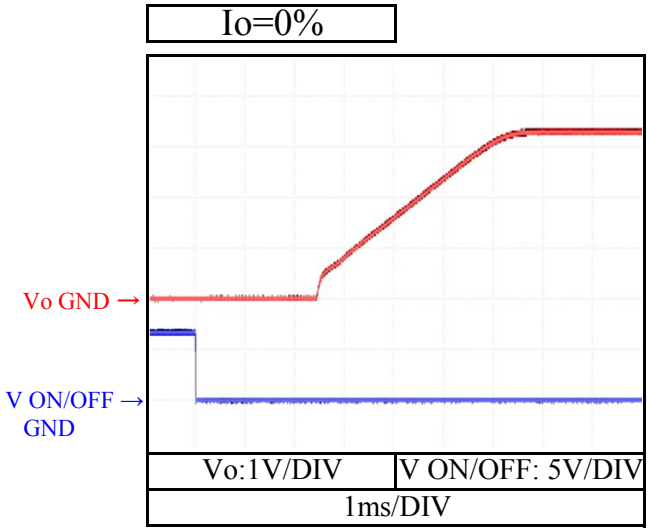


Io=100%

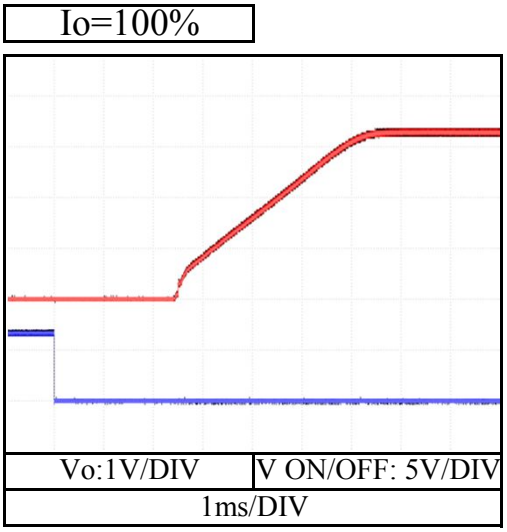


Vo= 3.3 V

Io=0%



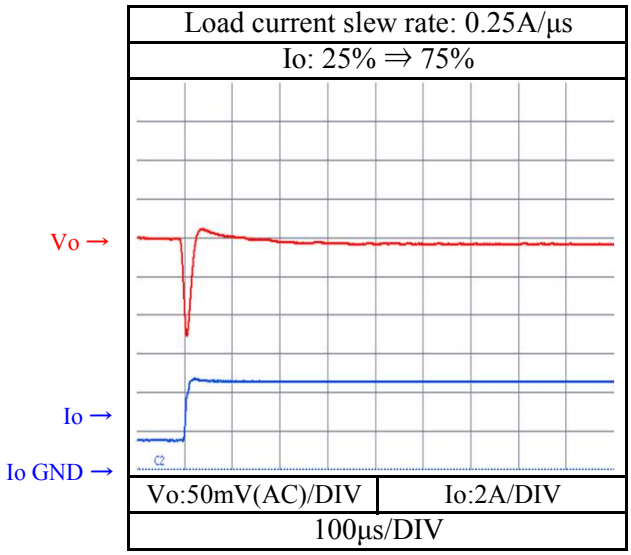
Io=100%

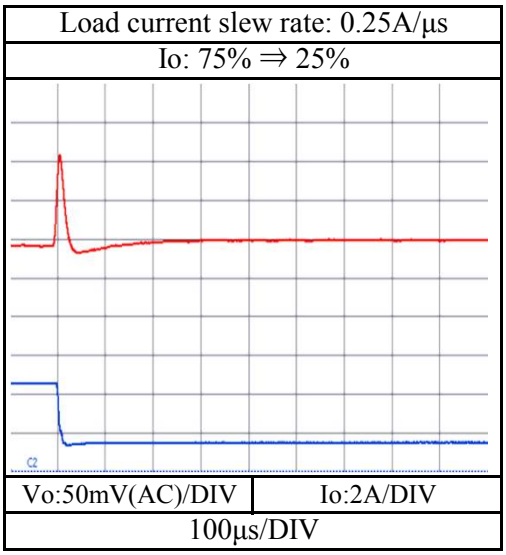


2.4 過渡応答（負荷急変）特性
Dynamic load response characteristics

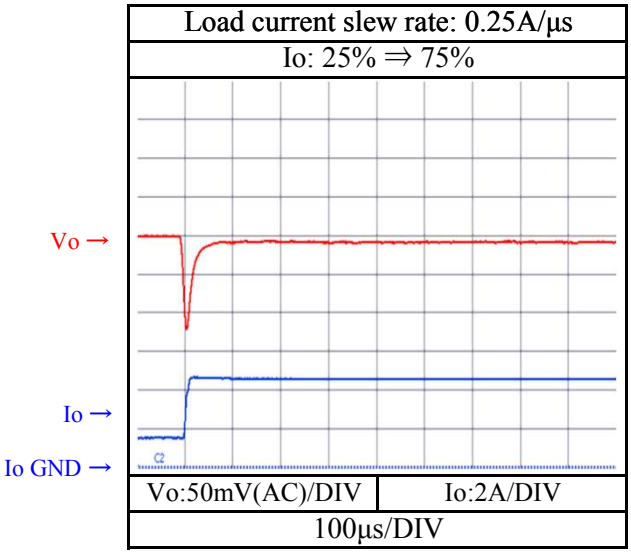
Conditions Vin : 12 VDC
Ta : 25 ℃

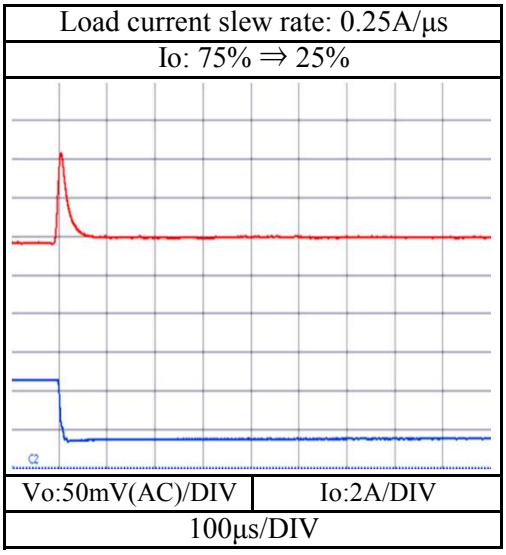
Vo= 1.8 V





Vo= 3.3 V



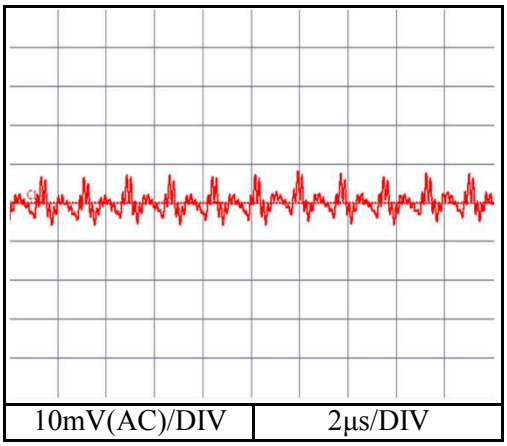


2.5 出力リップル・ノイズ波形
Output ripple and noise waveform

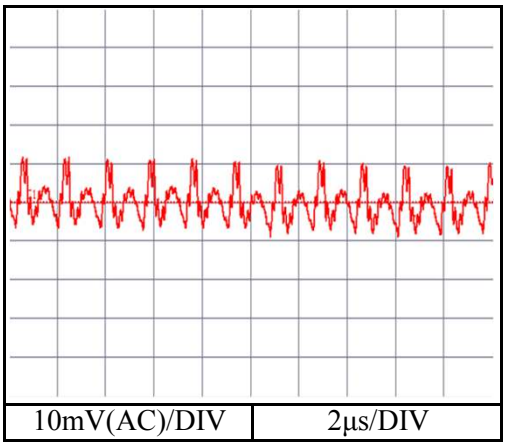
Conditions Vin : 12 VDC
Ta : 25 ℃

Vo= 1.8 V

Io=0%

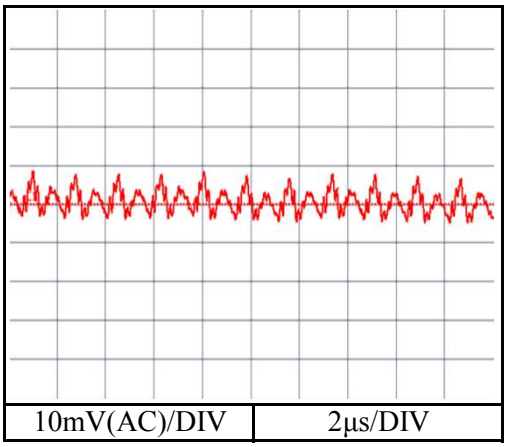


Io=100%



Vo= 3.3 V

Io=0%



Io=100%