

iCG05006A006V-*-R**

EVALUATION DATA

型式データ

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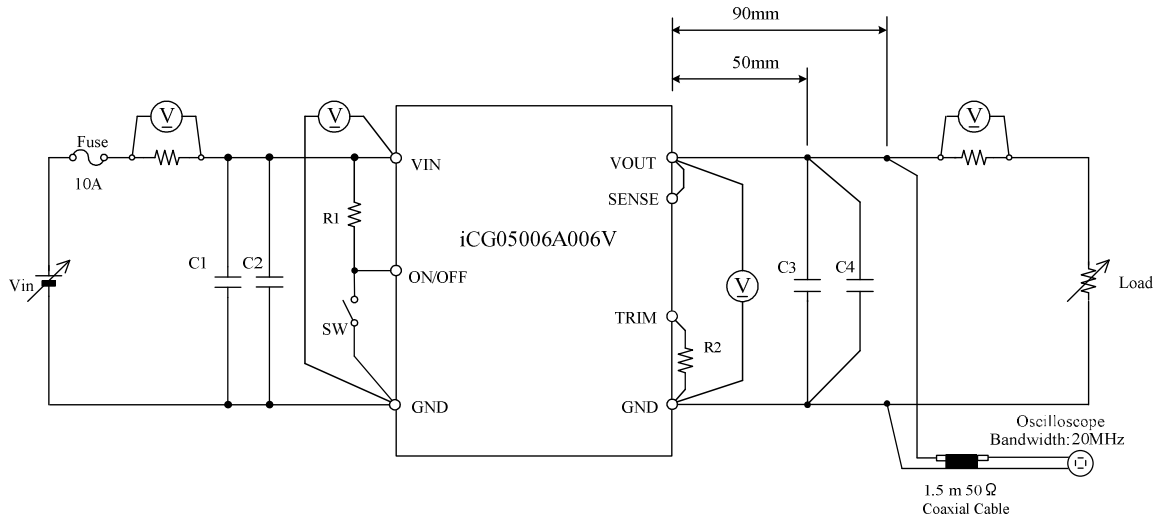
使用記号 Terminology used

	Definition		
V_{in}	入力電圧	Input voltage
V_o	出力電圧	Output voltage
$V_{ON/OFF}$	ON/OFF 電圧	ON/OFF 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

1. 評価方法 Evaluation Method

1.1 測定回路 Measurement Circuits

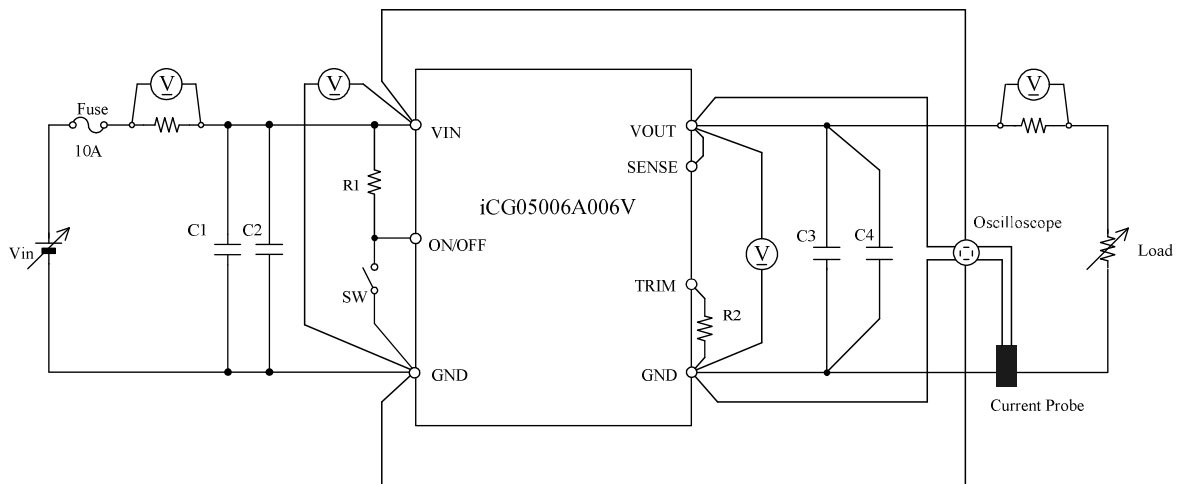
- (1) 基本接続図 (静特性、過電流保護特性、出力リップル・ノイズ波形・その他)
 Basic connection (Steady state characteristics, Over current protection (OCP) characteristics, and Output ripple and noise waveform etc.)



C1 : 22 μ F Ceramic Capacitor
 C2 : 22 μ F Ceramic Capacitor
 C3 : 22 μ F Ceramic Capacitor
 C4 : 22 μ F Ceramic Capacitor

R1 : 20k Ω
 R2 : $V_o = 1.5V - 1.333k\Omega$
 $V_o = 3.3V - 0.444k\Omega$

- (2) 過渡応答
 Dynamic response characteristics



C1 : 22 μ F Ceramic Capacitor
 C2 : 22 μ F Ceramic Capacitor
 C3 : 22 μ F Ceramic Capacitor
 C4 : 22 μ F Ceramic Capacitor

R1 : 20k Ω
 R2 : $V_o = 1.5V - 1.333k\Omega$
 $V_o = 3.3V - 0.444k\Omega$

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= 1.5 V

1. Line regulation and Load regulation

Condition Ta : 25°C

Io \ Vin	2.5VDC	4.5VDC	5VDC	5.5VDC	Line regulation	
0%	1.5013V	1.5026V	1.5029V	1.5030V	1.7mV	0.11%
50%	1.5018V	1.5026V	1.5026V	1.5025V	0.8mV	0.05%
100%	1.5022V	1.5024V	1.5025V	1.5026V	0.4mV	0.03%
Load regulation	0.9mV	0.2mV	0.4mV	0.5mV		
	0.06%	0.01%	0.03%	0.03%		

2. Temperature drift

Conditions Vin : 5VDC
Io : 100%

Ta	-40°C	+25°C	+85°C	Temperature stability	
Vo	1.5093V	1.5025V	1.5021V	7.2mV	0.48%

Vo= 3.3 V

1. Line regulation and Load regulation

Condition Ta : 25°C

Io \ Vin	4.5VDC	5VDC	5.5VDC	Line regulation	
0%	3.3040V	3.3049V	3.3051V	1.1mV	0.03%
50%	3.3057V	3.3056V	3.3052V	0.5mV	0.02%
100%	3.3070V	3.3058V	3.3053V	1.7mV	0.05%
Load regulation	3.0mV	0.9mV	0.2mV		
	0.09%	0.03%	0.01%		

2. Temperature drift

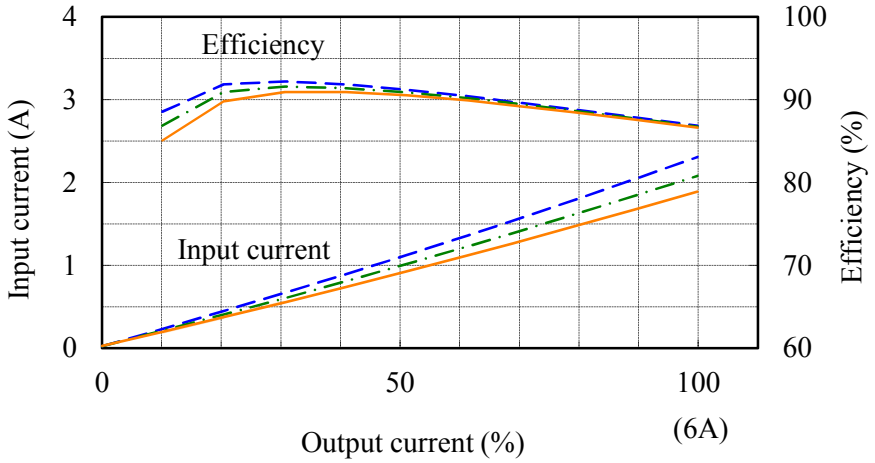
Conditions Vin : 5VDC
Io : 100%

Ta	-40°C	+25°C	+85°C	Temperature stability	
Vo	3.3149V	3.3058V	3.3066V	9.1mV	0.28%

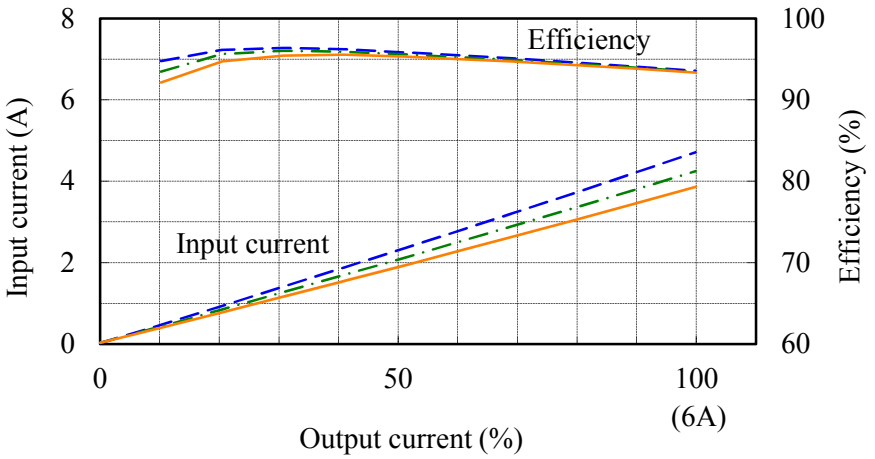
(2) 入力電流、効率 対 出力電流
Input current and Efficiency vs. Output current

Conditions Vin : 4.5 VDC ---
 : 5 VDC -.-
 : 5.5 VDC ---
 Ta : 25 °C

Vo= 1.5 V



Vo= 3.3 V



(3) 効率対温度

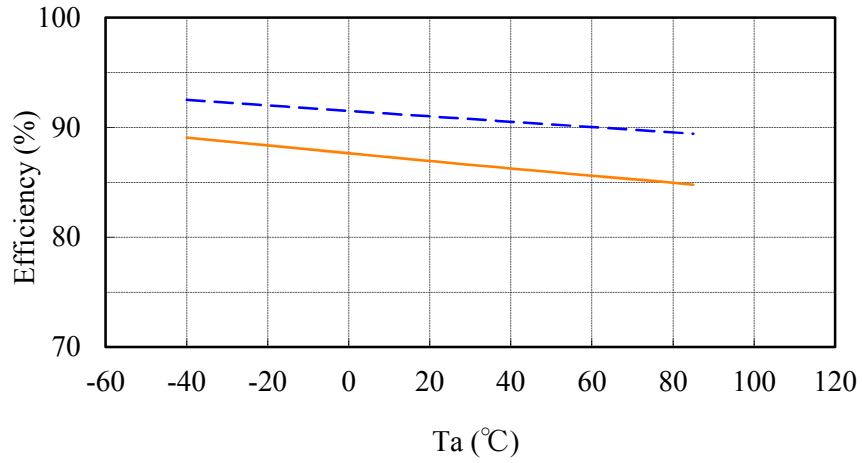
Efficiency vs. Temperature

Conditions V_{in} : 5 VDC

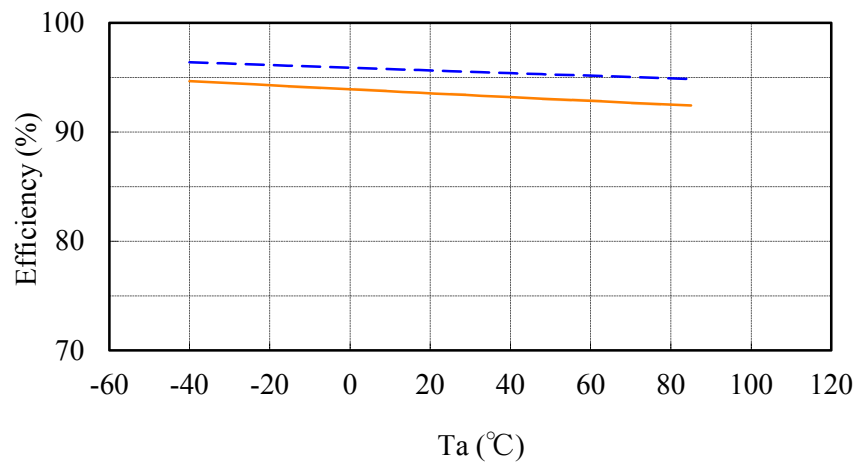
I_o : 50 % ---

: 100 % —

$V_o = 1.5$ V



$V_o = 3.3$ V

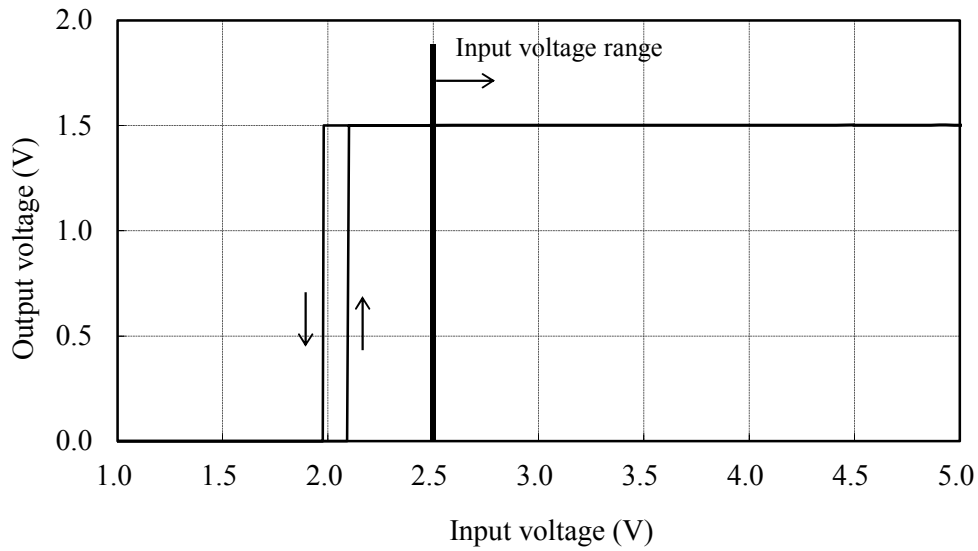


(4) 起動、停止電圧特性
Start and Stop voltage characteristics

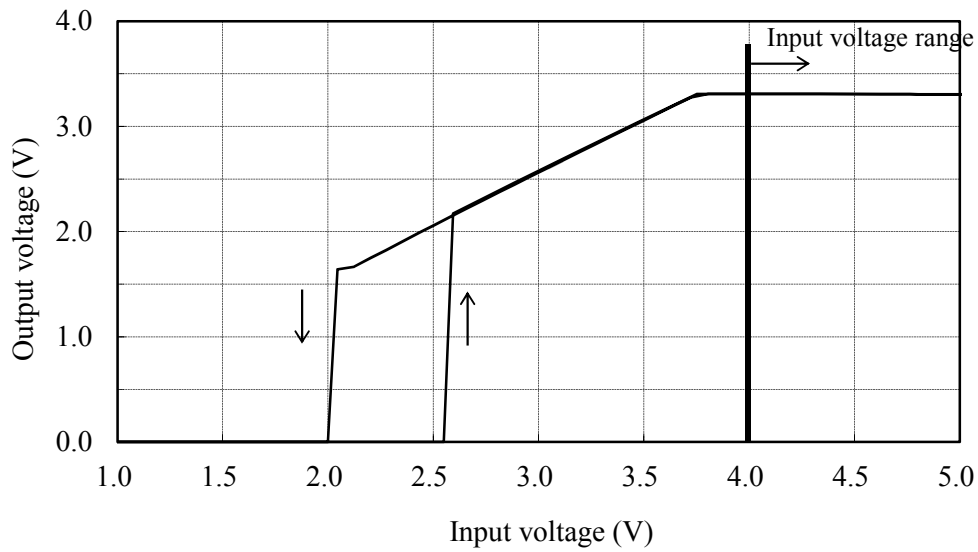
出力電圧 対 入力電圧
Output voltage vs. Input voltage

Conditions I_o : 100 %
 T_a : 25 °C

$V_o = 1.5$ V



$V_o = 3.3$ 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

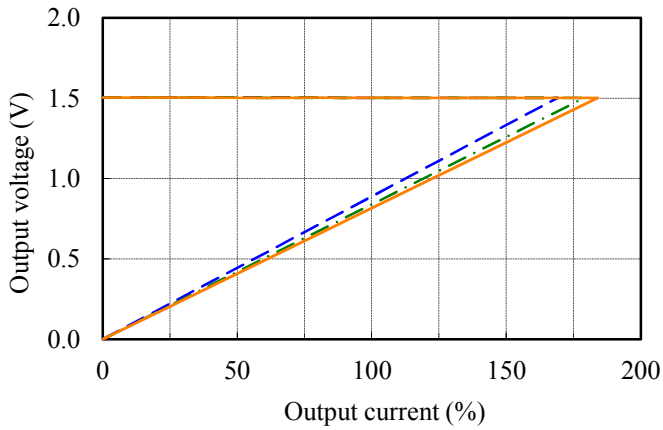
Conditions Vin : 4.5 VDC ---
 : 5.0 VDC -.-
 : 5.5 VDC —
 Ta : 25 °C

周囲温度依存性

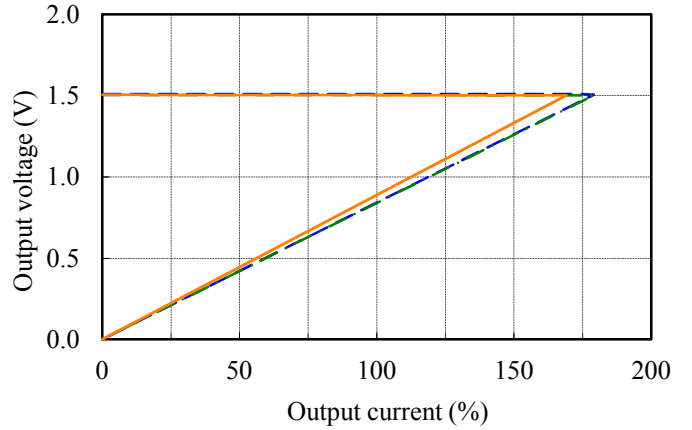
Ambient temperature dependence

Conditions Vin : 5 VDC
 Ta : -40 °C ---
 : 25 °C -.-
 : 85 °C —

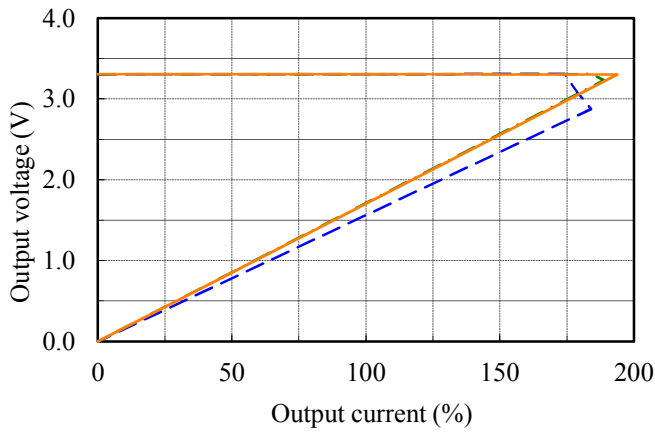
V_o = 1.5 V



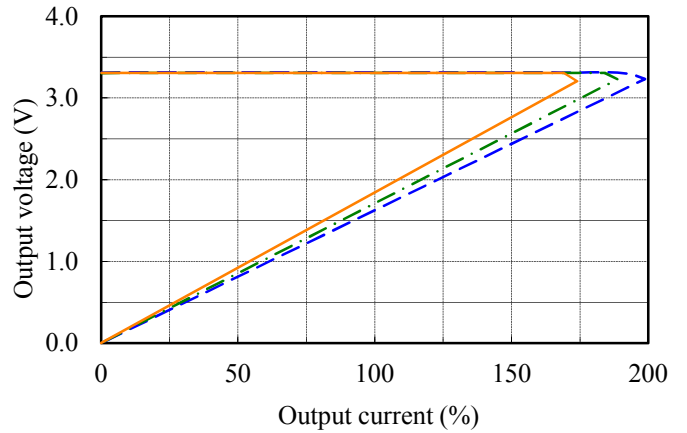
V_o = 1.5 V



V_o = 3.3 V



V_o = 3.3 V

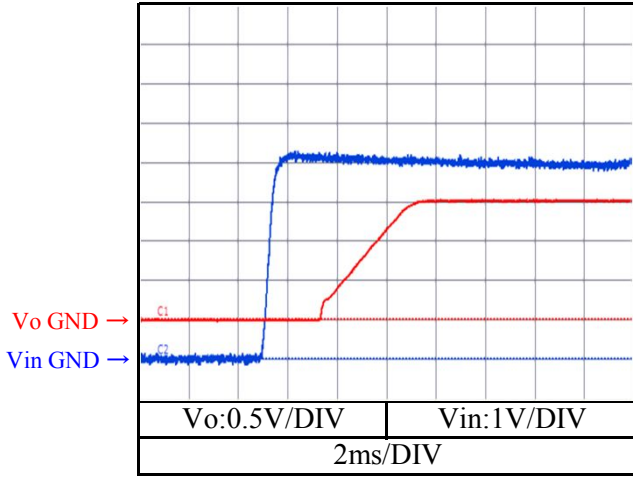


2.3 出力立ち上がり特性
Output rise characteristics

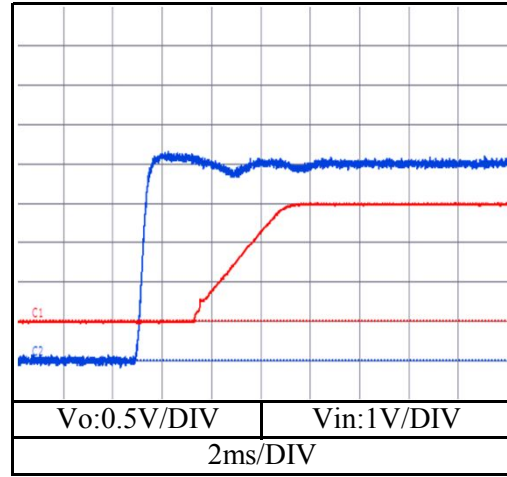
Conditions Vin : 5 VDC
Ta : 25 °C

Vo= 1.5 V

Io=0%

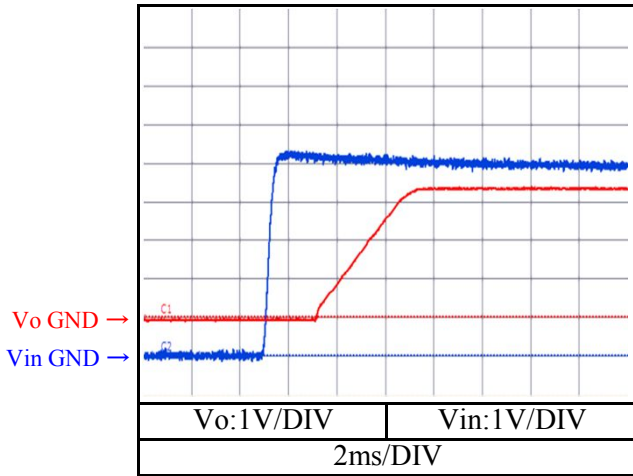


Io=100%

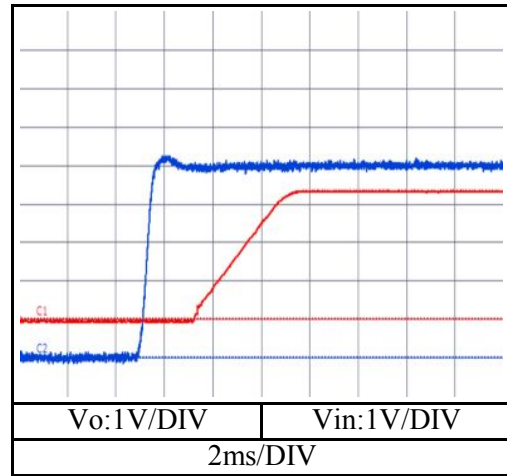


Vo= 3.3 V

Io=0%



Io=100%

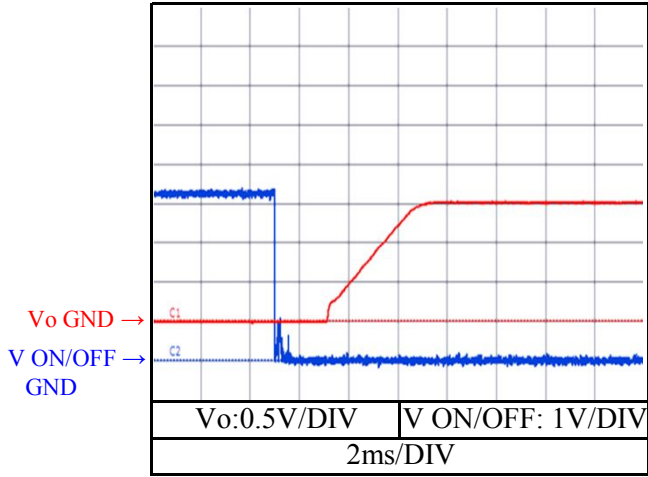


2.3 出力立ち上がり特性 (リモートON/OFF時)
Output rise characteristics with Remote ON/OFF

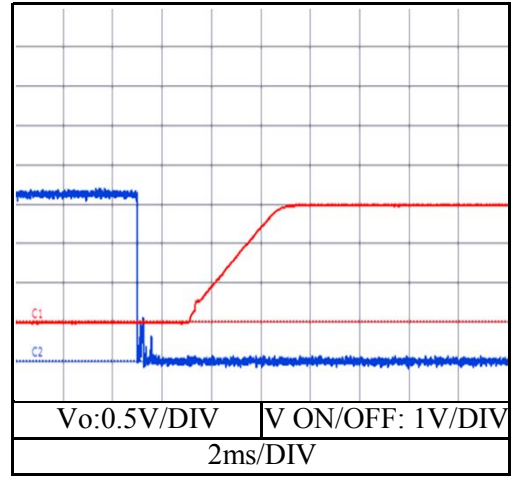
Conditions Vin : 5 VDC
Ta : 25 °C

Vo= 1.5 V

Io=0%

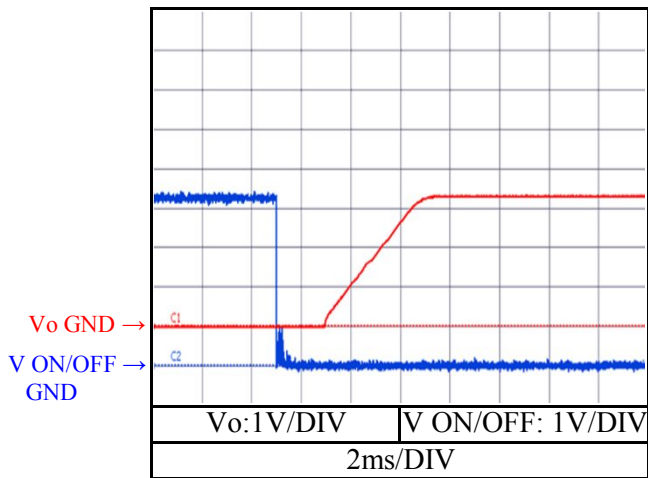


Io=100%

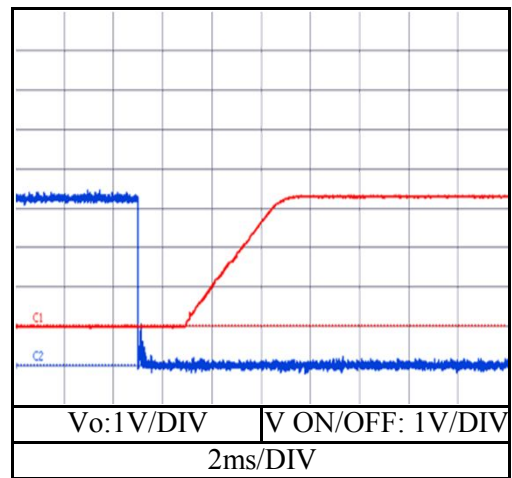


Vo= 3.3 V

Io=0%



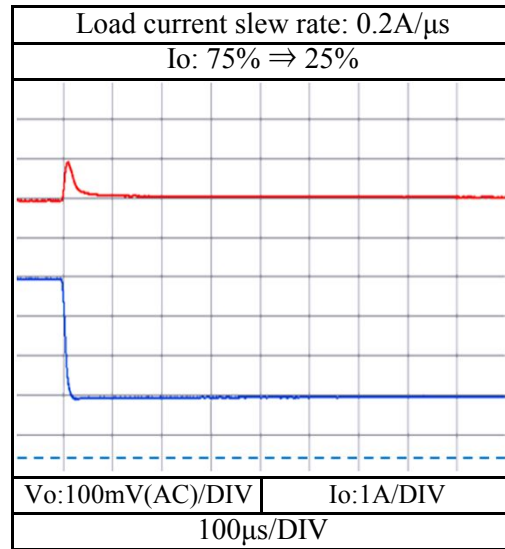
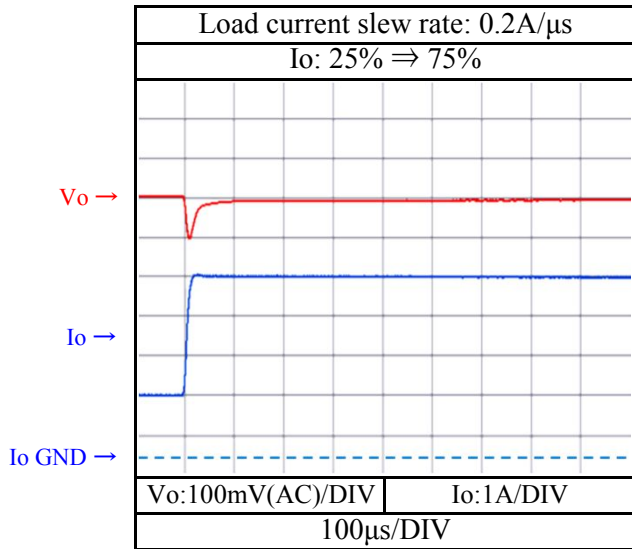
Io=100%



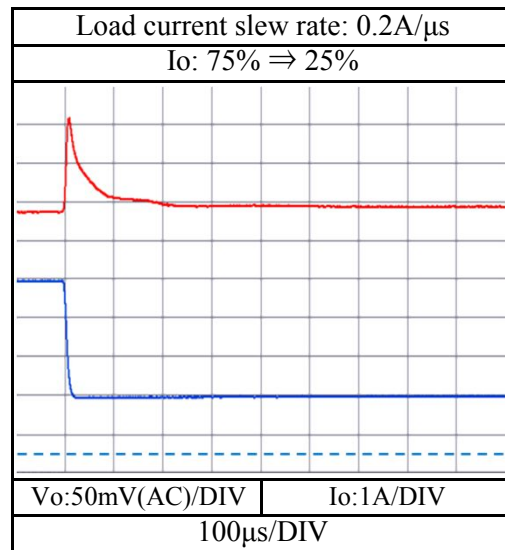
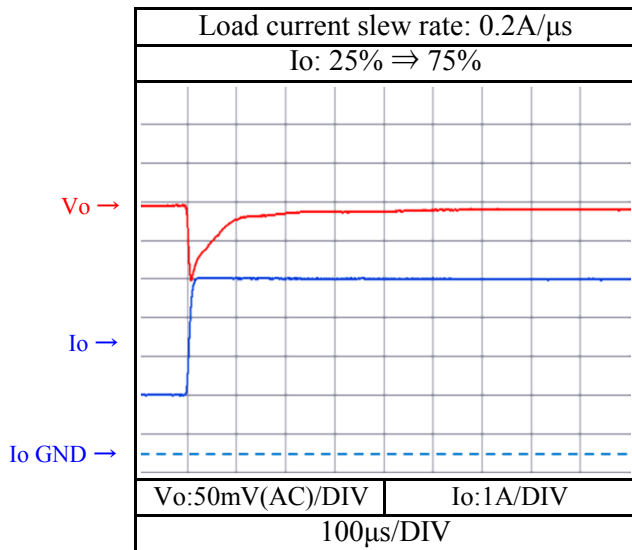
2.4 過渡応答（負荷急変）特性
Dynamic load response characteristics

Conditions Vin : 5 VDC
Ta : 25 °C

V_o = 1.5 V



V_o = 3.3 V

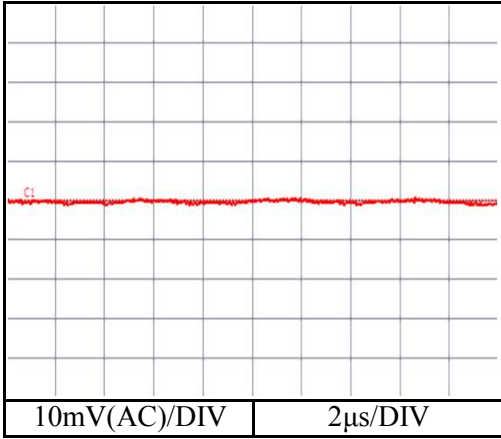


2.5 出力リップル・ノイズ波形
Output ripple and noise waveform

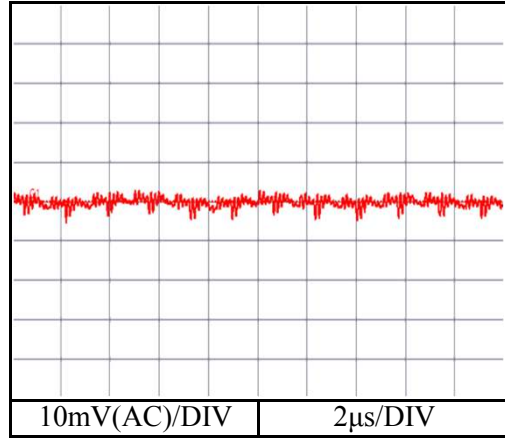
Conditions Vin : 5 VDC
Ta : 25 °C

Vo= 1.5 V

Io=0%

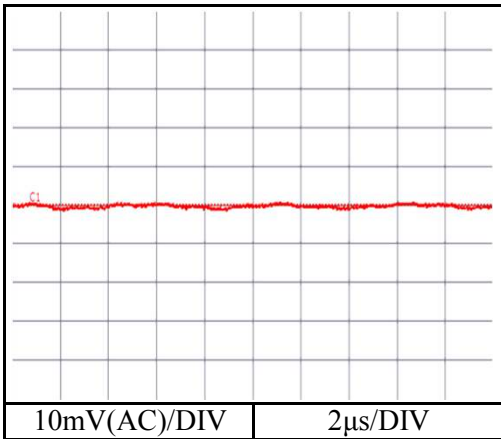


Io=100%



Vo= 3.3 V

Io=0%



Io=100%

