

# PSD6- \*-1212

## EVALUATION DATA

### 型式データ

DWG.No. C207-53-01		
承認	査閲	担当
N. Uozono	H. Kawagoe	M. Yamamoto
18, Apr, '05	13, Apr, '05	7, Apr, '05

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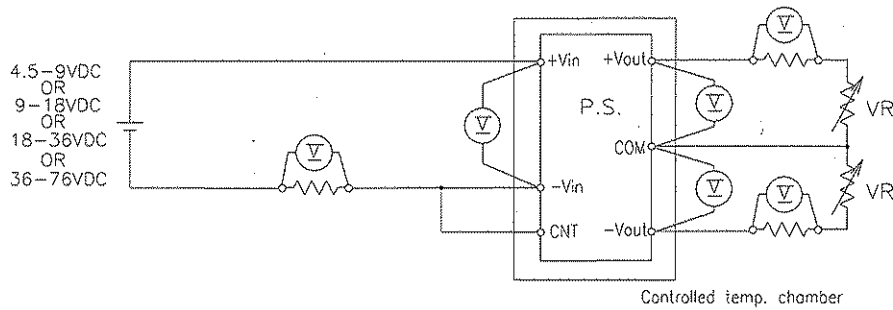
使用記号 Terminology used

	Definition		
Vin	.....	入力電圧	Input Voltage
Vout	.....	出力電圧	Output Voltage
Von/off	.....	ON/OFF電圧	ON/OFF Voltage
Iin	.....	入力電流	Input Current
Iout	.....	出力電流	Output Current
Ta	.....	周囲温度	Ambient Temperature

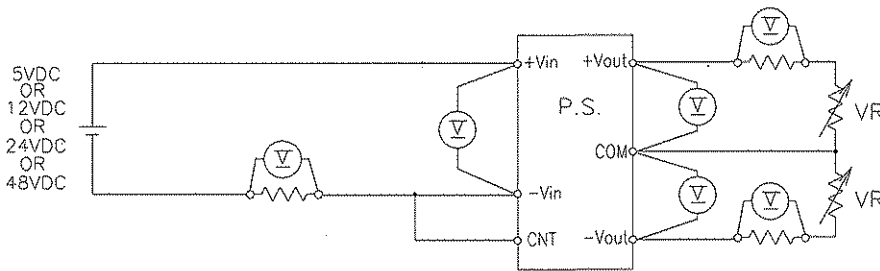
1. 測定方法 Evaluation Method

1.1 測定回路 Circuits used for determination

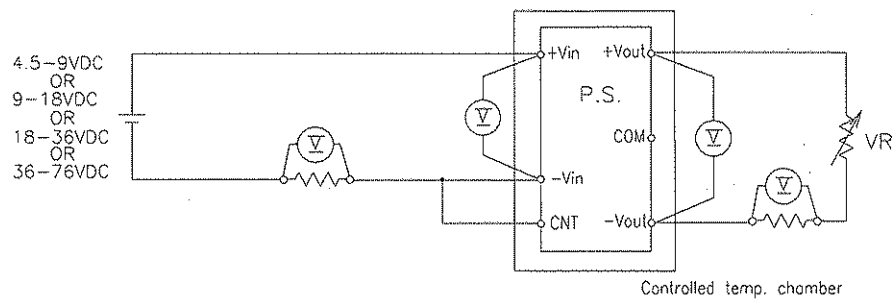
(1) 静特性 Steady state data



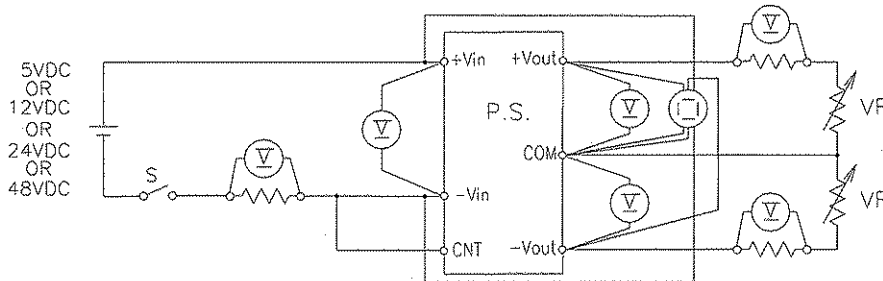
(2) 通電ドリフト特性 Warm up voltage drift characteristics



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



(4) 出力立ち上がり特性 Output rise characteristics



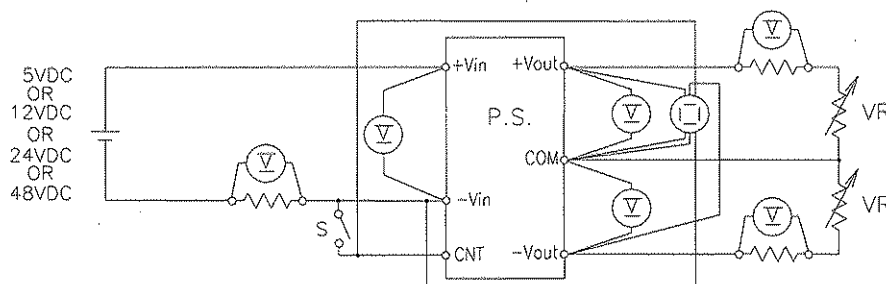
(5) 出力立ち下がり特性 Output fall characteristics

出力立ち上がり特性と同じ

Same as output rise characteristics

(6) 出力立ち上がり特性 (ON/OFF コントロール時)

Output rise characteristics with ON/OFF CONTROL



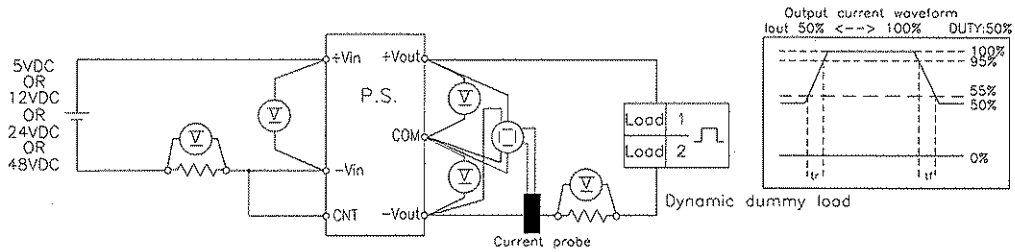
(7) 出力立ち下がり特性 (ON/OFF コントロール時)

Output fall characteristics with ON/OFF CONTROL

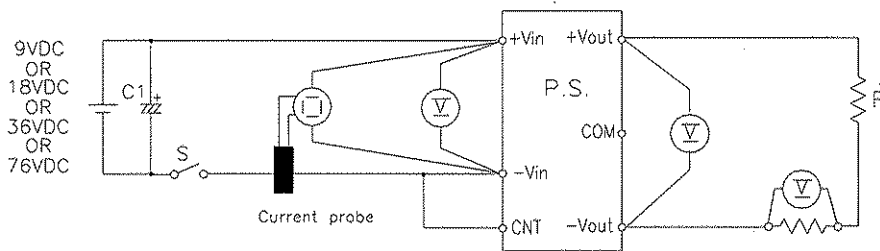
出力立ち上がり特性 (ON/OFF コントロール時) と同じ

Same as output rise characteristics with ON/OFF CONTROL

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

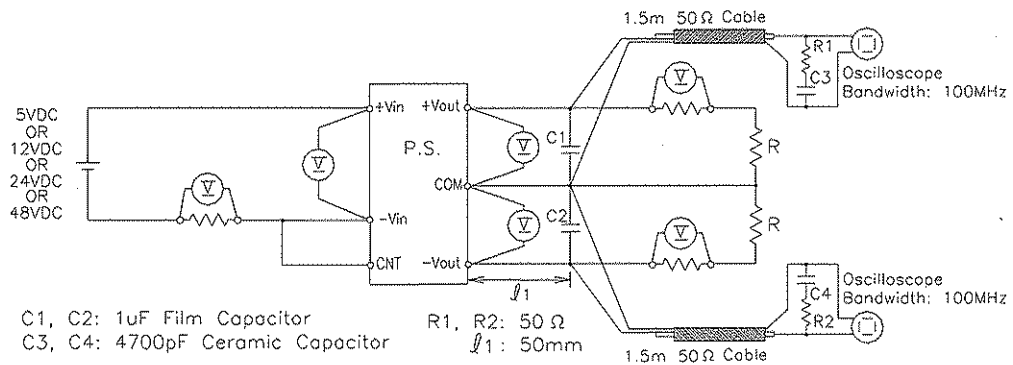


(9) 入力サージ電流(突入電流)特性 Inrush current characteristics

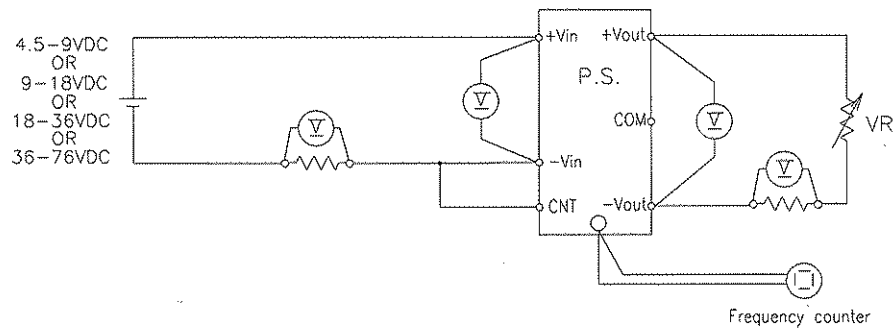


C1: 4000uF Electrolytic Capacitor

(10) 出力リップル、ノイズ波形 Output ripple and noise waveform

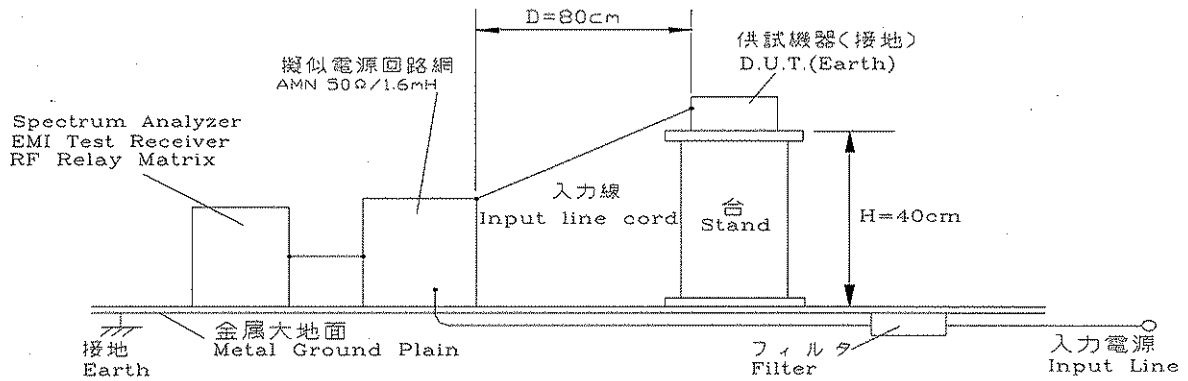


(11) スイッチング周波数対出力電力 Switching frequency v.s. output power

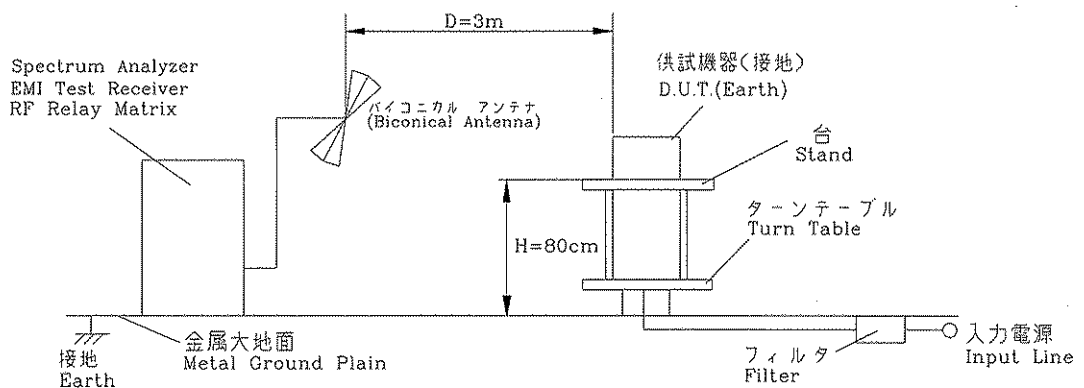


(12) EMI 特性 Electro-Magnetic Interference characteristics

(a) 雑音端子電圧 (帰還ノイズ) Conducted Emission Noise

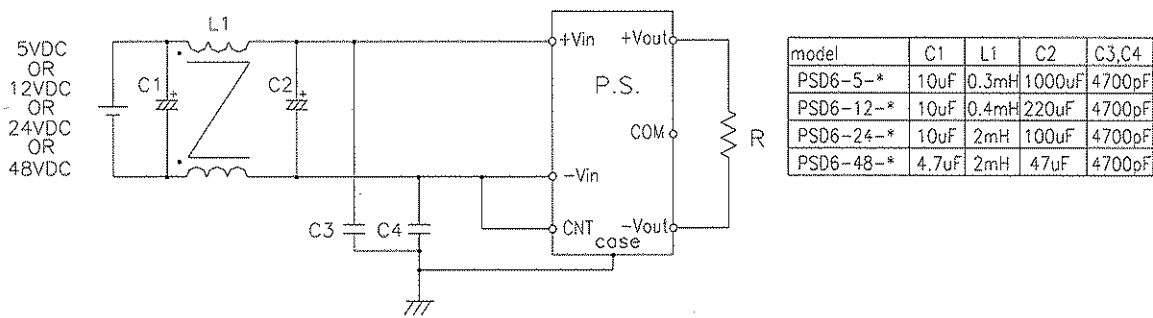


(b) 雑音電界強度 (輻射ノイズ) Radiated Emission Noise



(1) VCCI class A 対応アプリケーションシステム

VCCI class A application system



model	C1	L1	C2	C3,C4
PSD6-5-*	10uF	0.3mH	1000uF	4700pF
PSD6-12-*	10uF	0.4mH	220uF	4700pF
PSD6-24-*	10uF	2mH	100uF	4700pF
PSD6-48-*	4.7uF	2mH	47uF	4700pF

L1: Common mode choke coil  
 C1: Electrolytic Capacitor  
 C2: Electrolytic Capacitor  
 C3,C4 : Ceramic Capacitor



## 1.2 使用測定機器 List of equipment used

	EQUIPMENT USED	MANUFACTURER	MODEL NO.
1	OSCILLO SCOPE	HITACHI DENSHI	V-1100A
2	DIGITAL STORAGE OSCILLOSCOPE	IWATSU-LeCroy	LT364L
3	DIGITAL MULTIMETER	AGILENT	34970A
4	CURRENT PROBE/AMPLIFIER	TEKTRONIX	A6303/TM503B
5	SHUNT RESISTER	YOKOGAWA ELECT.	2215
6	DYNAMIC DUMMY LOAD	TAKASAGO	FK-400L
7	INPUT POWER SUPPLY	DENSEI-LAMBDA	GEN100-7.5
8	CONTROLLED TEMP. CHAMBER	TABAI ESPEC	SU-261
9	SPECTRUM ANALYZER	ROHDE & SCHWARZ	FSA
10	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESHS10
11	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESVS10
12	RF RELAY MATRIX	ROHDE & SCHWARZ	PSU
13	AMN	KYORITU DENSHI	KNW-242
14	ANTENNA(BICONICAL ANTENNA)	SCHWARZBECK	BBA9106

## 2. 特性データ Characteristics

## 2.1 静特性 Steady state data

(1) 入力・負荷・温度変動 Regulation - line and load, temperature drift

## PSD6-5-1212

## 12V (CH1)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	4.5VDC	5VDC	9VDC	line regulation	
0%	12.135V	12.134V	12.133V	2.0mV	0.016%
50%	12.129V	12.129V	12.130V	1.0mV	0.008%
100%	12.126V	12.127V	12.127V	1.0mV	0.008%
load	9.0mV	7.0mV	6.0mV		
regulation	0.07%	0.06%	0.05%		

## 2. Temperature drift

Conditions Vin : 5VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	12.072V	12.127V	12.140V	68.0mV	0.56%

## -12V (CH2)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	4.5VDC	5VDC	9VDC	line regulation	
0%	-12.122V	-12.123V	-12.123V	1.0mV	0.008%
50%	-12.124V	-12.125V	-12.125V	1.0mV	0.008%
100%	-12.126V	-12.126V	-12.126V	0.0mV	0.000%
load	4.0mV	3.0mV	3.0mV		
regulation	0.03%	0.02%	0.02%		

## 2. Temperature drift

Conditions Vin : 5VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	-12.068V	-12.126V	-12.135V	67.0mV	0.55%

## 2.1 静特性 Steady state data

(1) 入力・負荷・温度変動 Regulation - line and load, temperature drift

## PSD6-12-1212

## 12V (CH1)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	9VDC	12VDC	18VDC	line regulation	
0%	12.121V	12.121V	12.121V	0.0mV	0.000%
50%	12.121V	12.121V	12.120V	1.0mV	0.008%
100%	12.123V	12.122V	12.121V	2.0mV	0.016%
load	2.0mV	1.0mV	1.0mV		
regulation	0.02%	0.01%	0.01%		

## 2. Temperature drift

Conditions Vin : 12VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	12.062V	12.122V	12.137V	75.0mV	0.62%

## -12V (CH2)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	9VDC	12VDC	18VDC	line regulation	
0%	-12.102V	-12.102V	-12.103V	1.0mV	0.008%
50%	-12.102V	-12.103V	-12.104V	2.0mV	0.017%
100%	-12.100V	-12.101V	-12.103V	3.0mV	0.025%
load	2.0mV	2.0mV	1.0mV		
regulation	0.02%	0.02%	0.01%		

## 2. Temperature drift

Conditions Vin : 12VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	-12.045V	-12.101V	-12.114V	69.0mV	0.57%

## 2.1 静特性 Steady state data

(1) 入力・負荷・温度変動 Regulation - line and load, temperature drift

PSD6-24-1212

12V (CH1)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	18VDC	24VDC	36VDC	line regulation	
0%	12.128V	12.128V	12.130V	2.0mV	0.016%
50%	12.128V	12.129V	12.130V	2.0mV	0.016%
100%	12.127V	12.128V	12.128V	1.0mV	0.008%
load	1.0mV	1.0mV	2.0mV		
regulation	0.01%	0.01%	0.02%		

## 2. Temperature drift

Conditions Vin : 24VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	12.049V	12.128V	12.148V	99.0mV	0.82%

-12V (CH2)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	18VDC	24VDC	36VDC	line regulation	
0%	-12.130V	-12.134V	-12.135V	5.0mV	0.041%
50%	-12.131V	-12.133V	-12.134V	3.0mV	0.025%
100%	-12.131V	-12.133V	-12.133V	2.0mV	0.016%
load	1.0mV	1.0mV	2.0mV		
regulation	0.01%	0.01%	0.02%		

## 2. Temperature drift

Conditions Vin : 24VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	-12.054V	-12.133V	-12.154V	100.0mV	0.82%

## 2.1 静特性 Steady state data

(1) 入力・負荷・温度変動 Regulation - line and load, temperature drift

## PSD6-48-1212

## 12V (CH1)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	36VDC	48VDC	76VDC	line regulation	
0%	12.179V	12.179V	12.180V	1.0mV	0.008%
50%	12.178V	12.180V	12.180V	2.0mV	0.016%
100%	12.178V	12.180V	12.180V	2.0mV	0.016%
load regulation	1.0mV	1.0mV	0.0mV		
	0.01%	0.01%	0.00%		

## 2. Temperature drift

Conditions Vin : 48VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	12.106V	12.180V	12.198V	92.0mV	0.76%

## -12V (CH2)

## 1. Regulation - line and load

Condition Ta : 25°C

Iout \ Vin	36VDC	48VDC	76VDC	line regulation	
0%	-12.175V	-12.179V	-12.180V	5.0mV	0.041%
50%	-12.175V	-12.177V	-12.178V	3.0mV	0.025%
100%	-12.175V	-12.177V	-12.177V	2.0mV	0.016%
load regulation	0.0mV	2.0mV	3.0mV		
	0.00%	0.02%	0.02%		

## 2. Temperature drift

Conditions Vin : 48VDC

Iout : 100%

Ta	-40°C	25°C	85°C	temperature stability	
Vout	-12.102V	-12.177V	-12.200V	98.0mV	0.80%

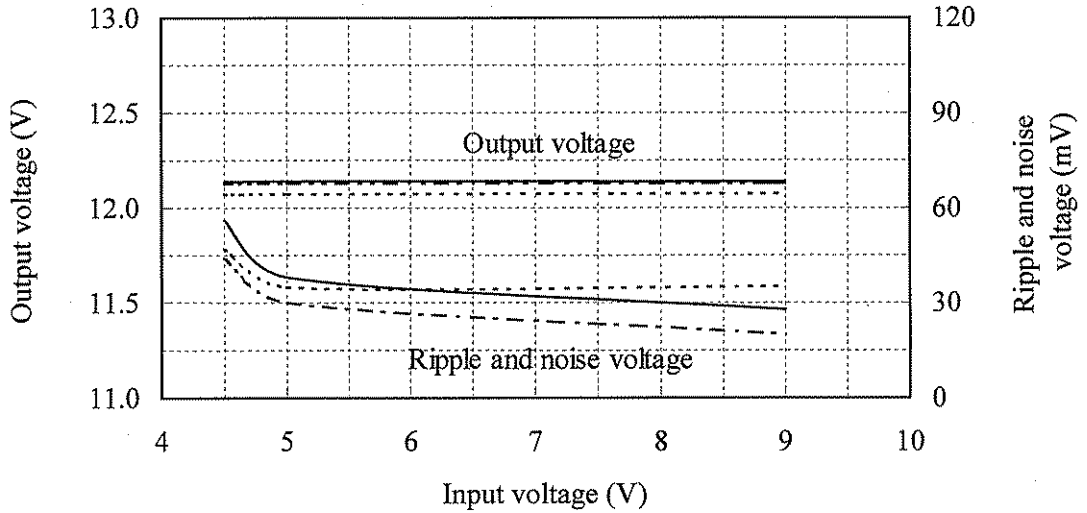
2.1 (2) 出力電圧・リップル電圧対入力電圧  
Output voltage and ripple voltage v.s. input voltage

PSD6-5-1212

Conditions Iout : 100 %

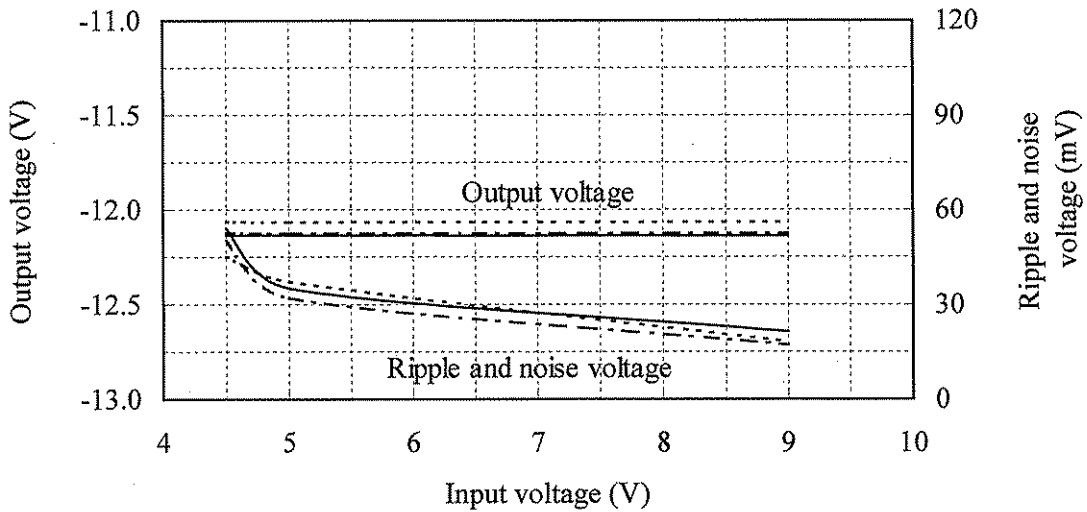
Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_

12V (CH1)



-12V (CH2)

Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_



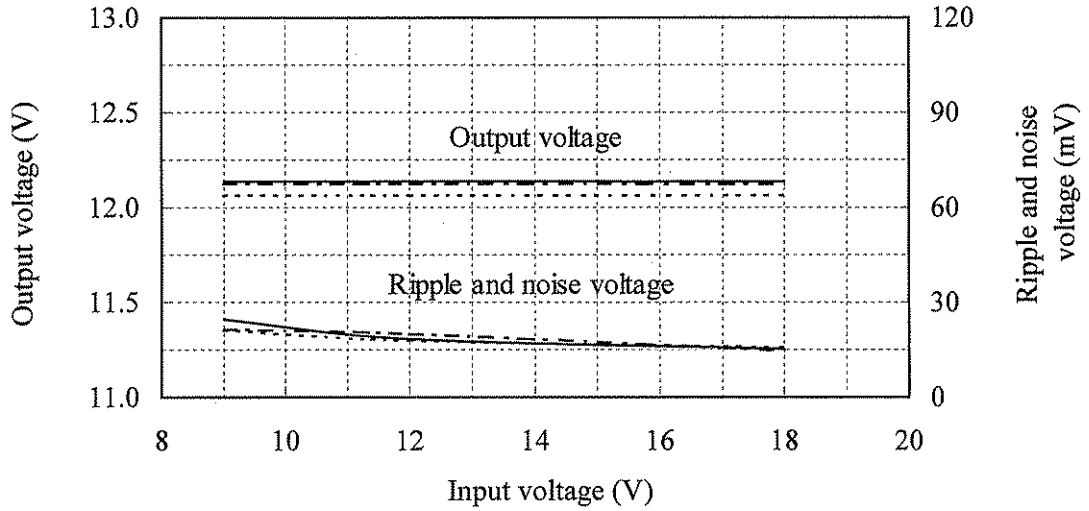
2.1 (2) 出力電圧・リップル電圧対入力電圧  
Output voltage and ripple voltage v.s. input voltage

PSD6-12-1212

Conditions Iout : 100 %

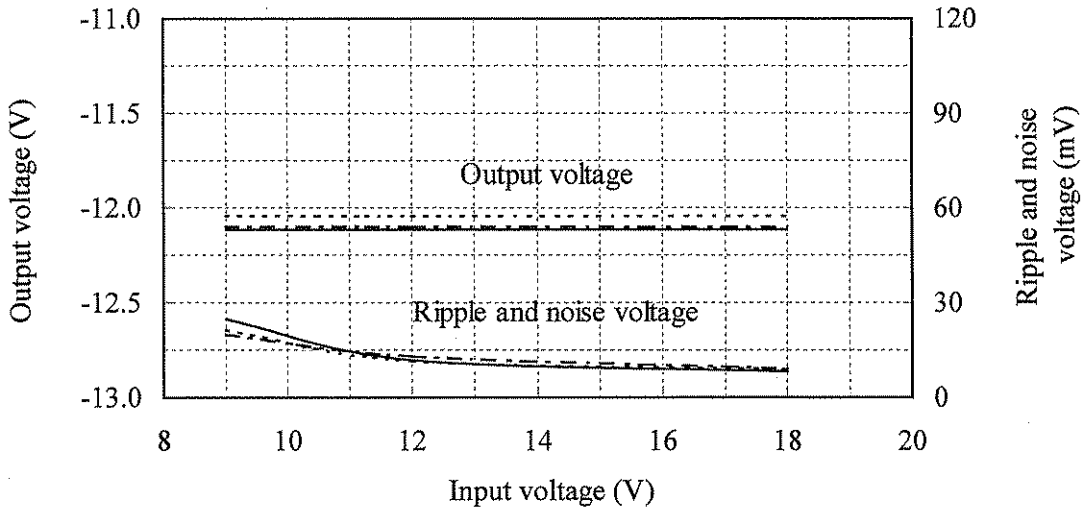
Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_

12V (CH1)



-12V (CH2)

Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_



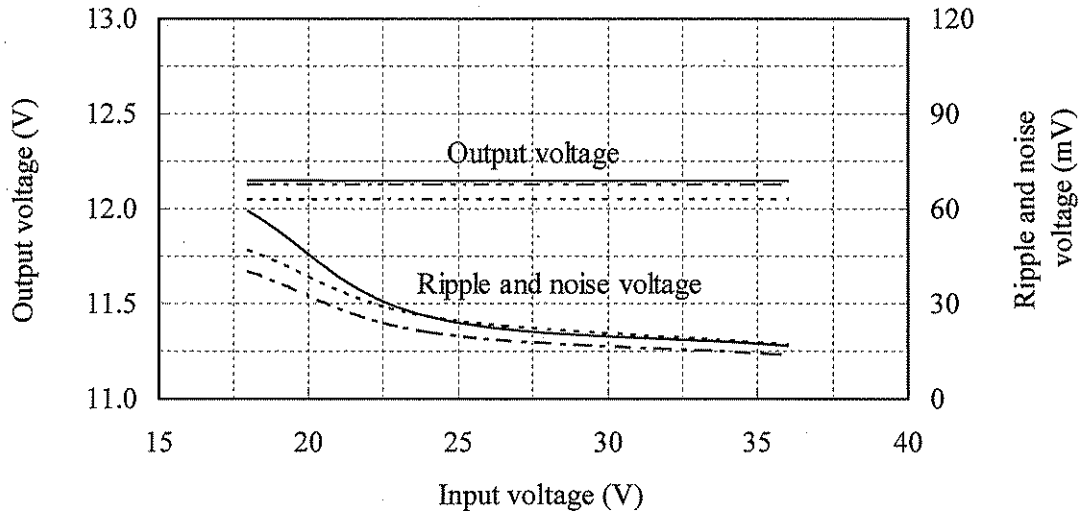
2.1 (2) 出力電圧・リップル電圧対入力電圧  
Output voltage and ripple voltage v.s. input voltage

PSD6-24-1212

Conditions Iout : 100 %

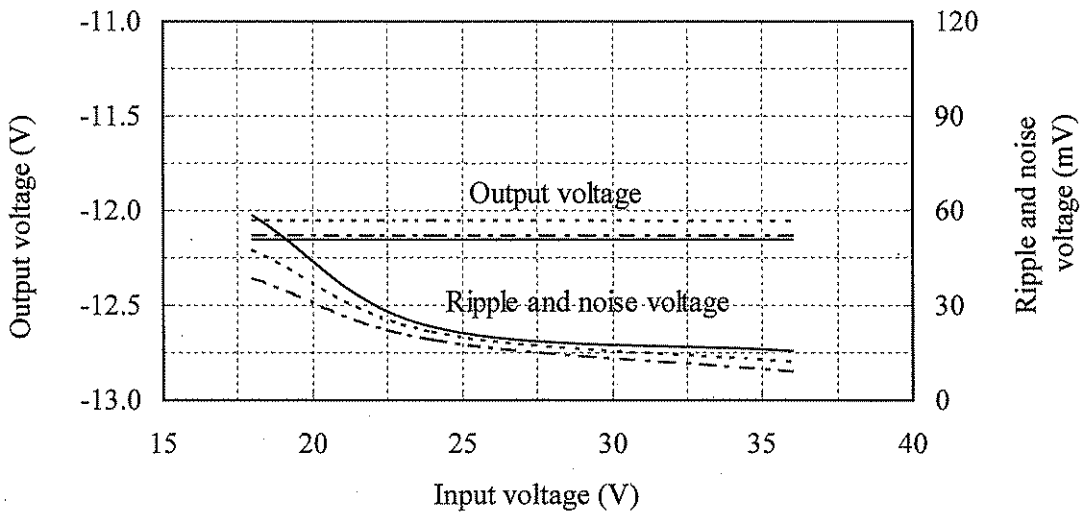
Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_

12V (CH1)



-12V (CH2)

Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_





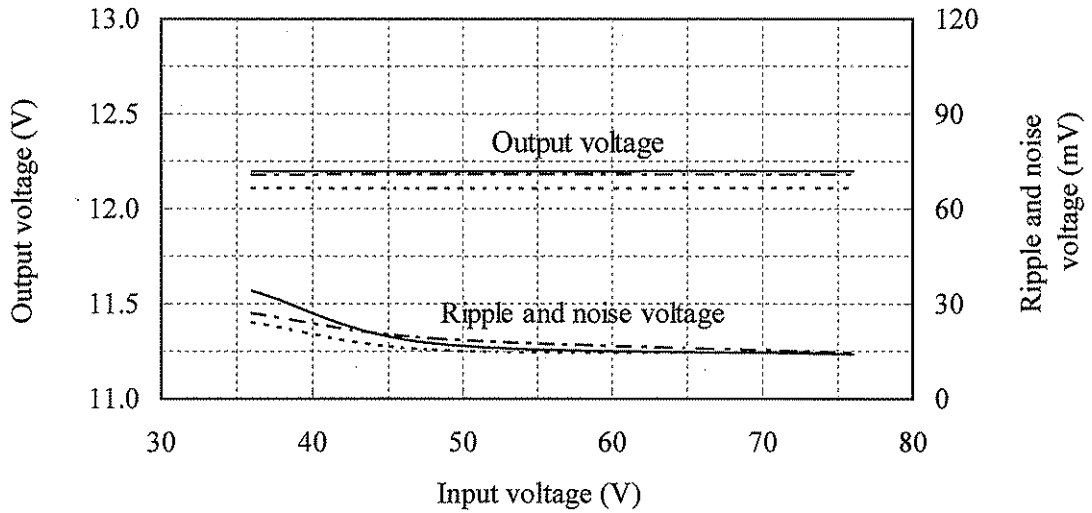
2.1 (2) 出力電圧・リップル電圧対入力電圧  
Output voltage and ripple voltage v.s. input voltage

PSD6-48-1212

Conditions Iout : 100 %

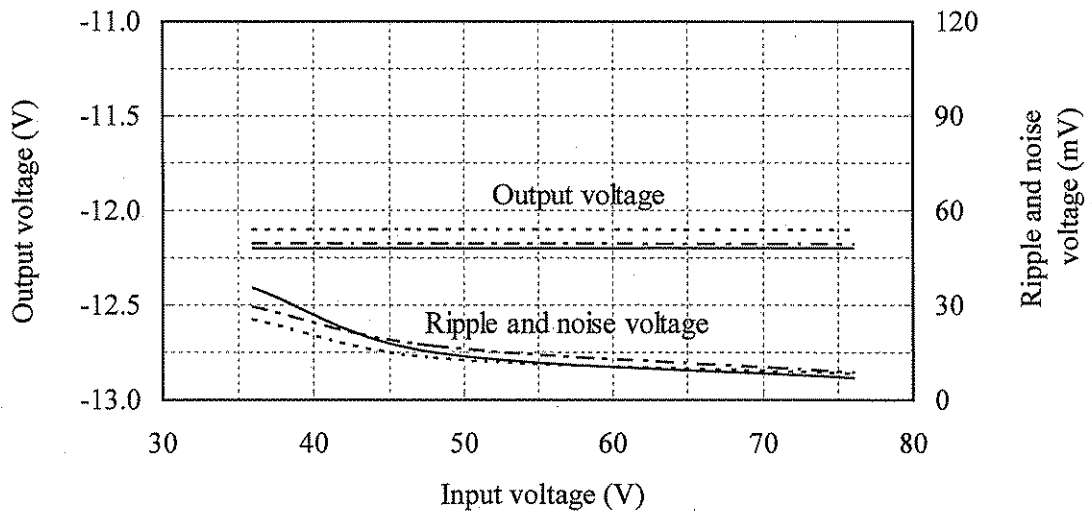
Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_

12V (CH1)



-12V (CH2)

Ta : -40 °C -----  
25 °C - - - - -  
85 °C \_\_\_\_\_

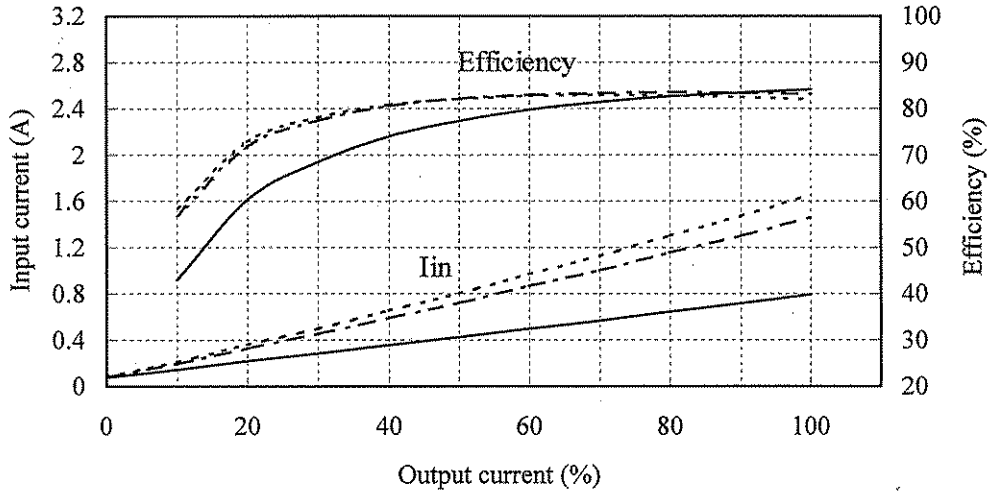


2.1 (3) 効率・入力電流対出力電流

Efficiency and input current v.s. output current

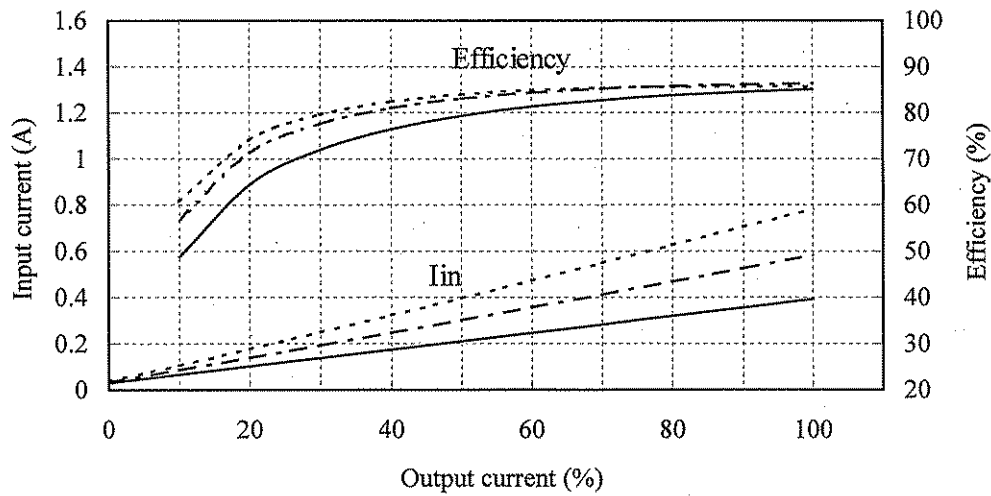
Conditions  $V_{in}$  : 4.5 VDC -----  
 : 5 VDC - - - - -  
 : 9 VDC ————  
 $T_a$  : 25 °C

PSD6-5-1212



Conditions  $V_{in}$  : 9 VDC -----  
 : 12 VDC - - - - -  
 : 18 VDC ————  
 $T_a$  : 25 °C

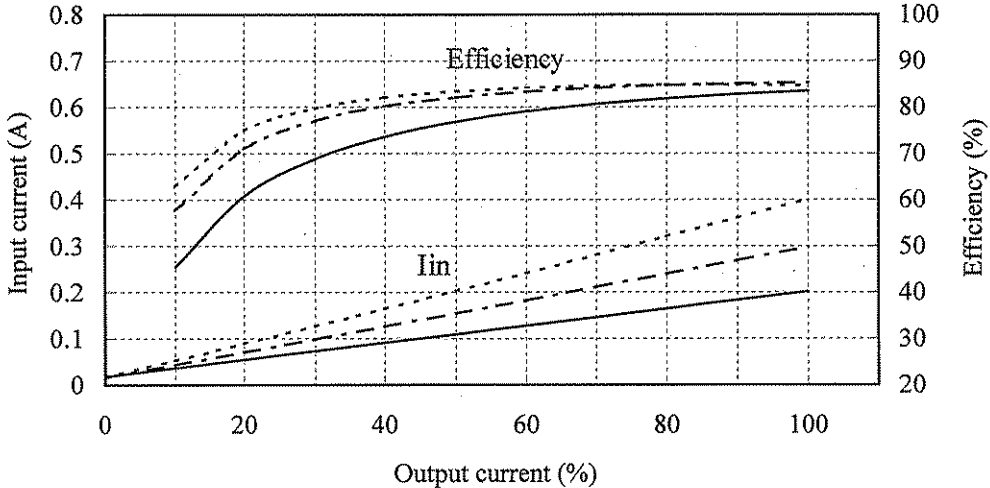
PSD6-12-1212



2.1 (3) 効率・入力電流対出力電流  
Efficiency and input current v.s. output current

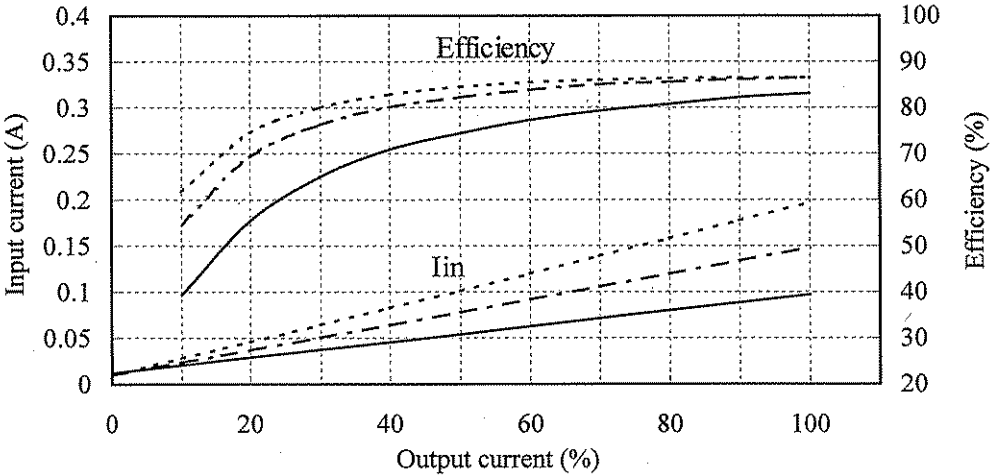
Conditions  $V_{in}$  : 18 VDC -----  
 : 24 VDC - - - - -  
 : 36 VDC ————  
 $T_a$  : 25 °C

PSD6-24-1212



Conditions  $V_{in}$  : 36 VDC -----  
 : 48 VDC - - - - -  
 : 76 VDC ————  
 $T_a$  : 25 °C

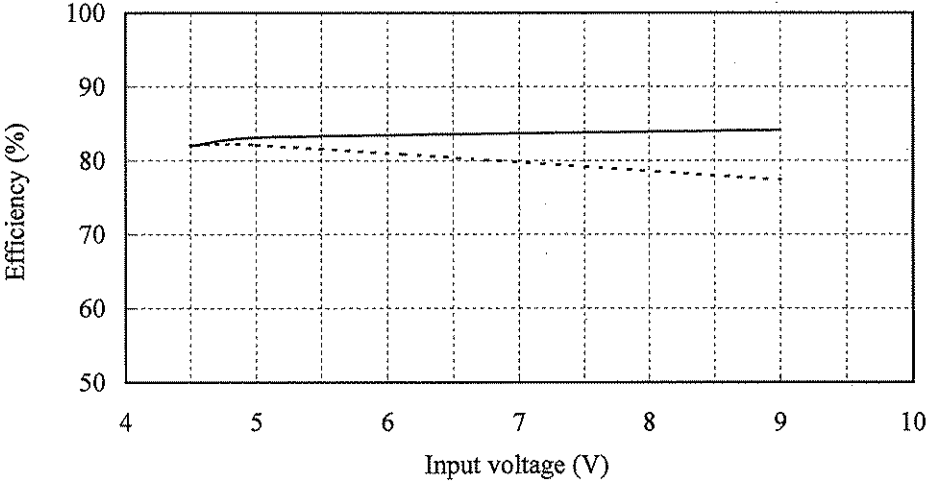
PSD6-48-1212



2.1 (4) 効率対入力電圧  
Efficiency v.s. input voltage

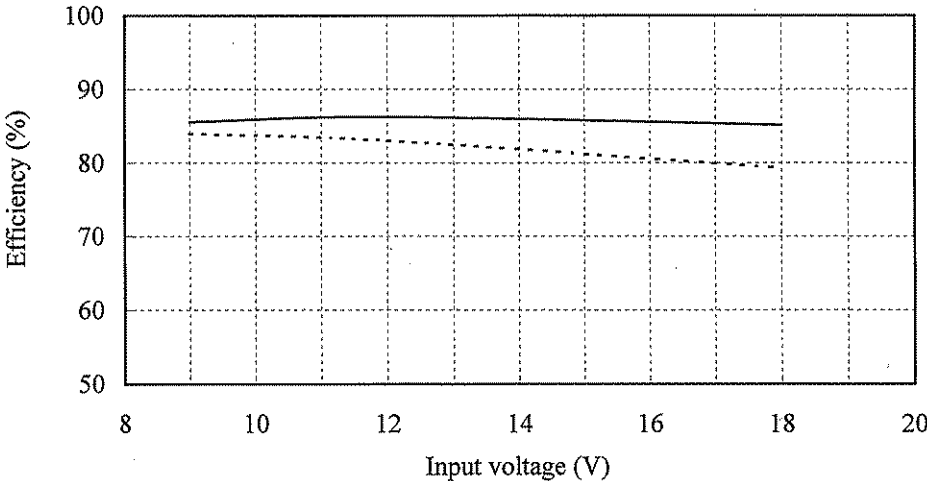
Conditions Ta : 25 °C  
Iout : 50 % -----  
100 % —————

PSD6-5-1212



Conditions Ta : 25 °C  
Iout : 50 % -----  
100 % —————

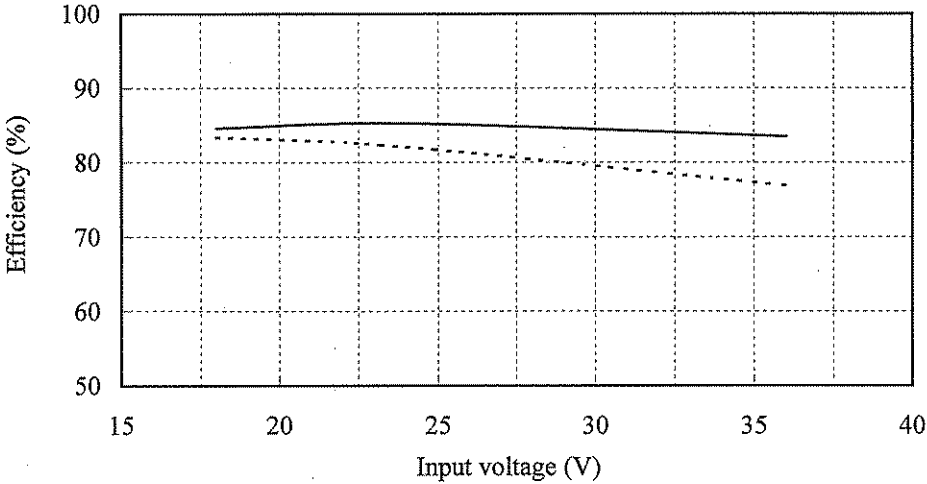
PSD6-12-1212



2.1 (4) 効率対入力電圧  
Efficiency v.s. input voltage

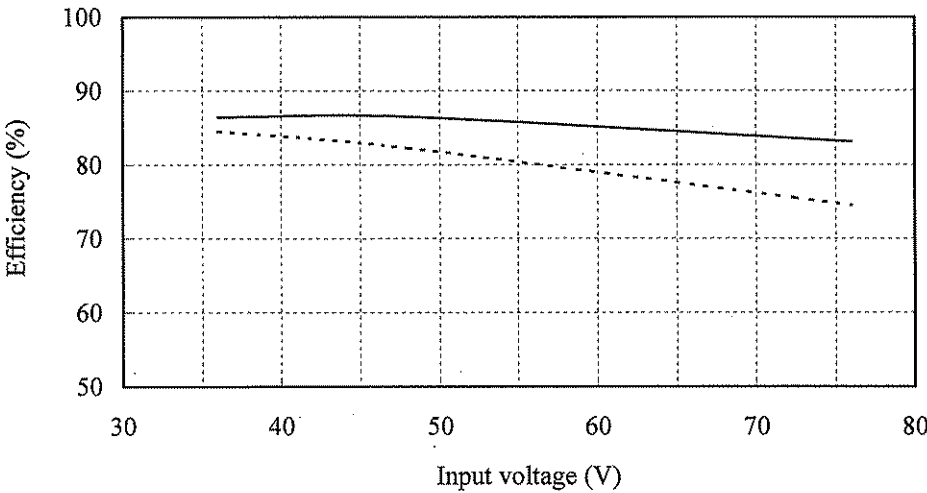
Conditions Ta : 25 °C  
Iout : 50 % -----  
100 % —————

PSD6-24-1212



Conditions Ta : 25 °C  
Iout : 50 % -----  
100 % —————

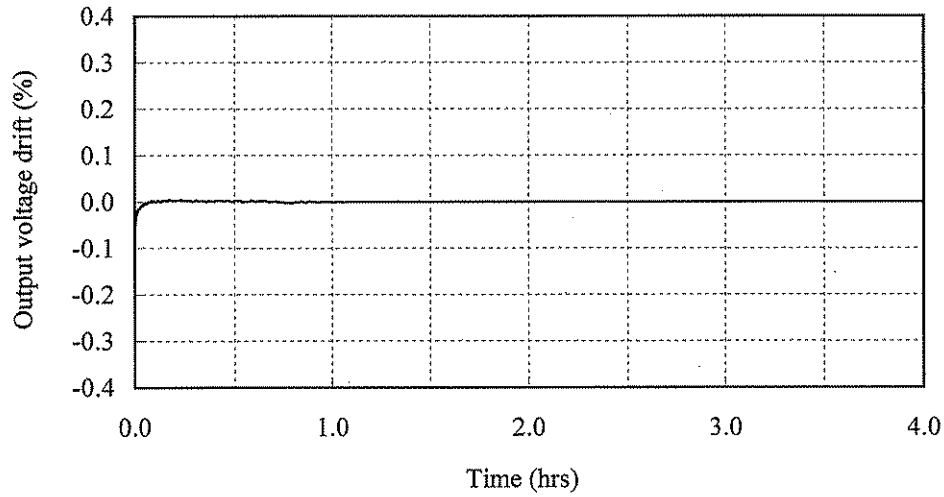
PSD6-48-1212



2.2 通電ドリフト特性  
Warm up voltage drift characteristics

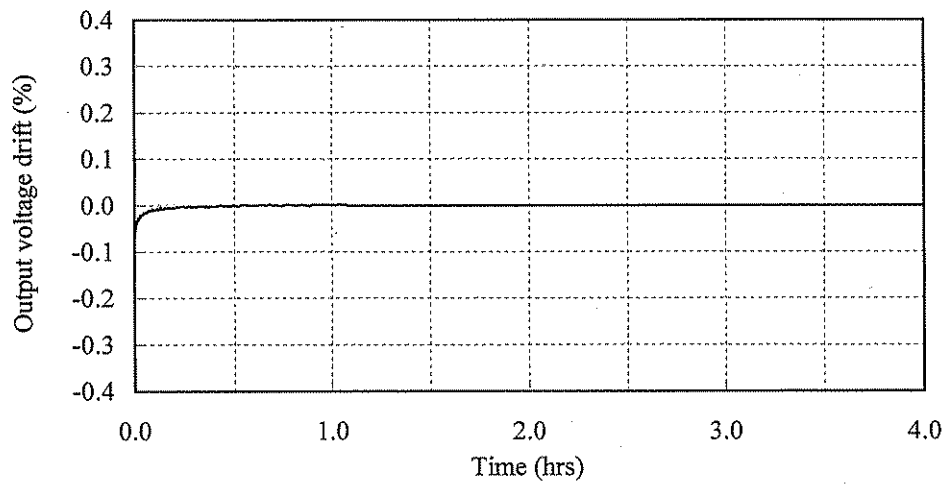
Conditions  $V_{in}$  : 5 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

PSD6-5-1212



Conditions  $V_{in}$  : 12 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

PSD6-12-1212



2.2 通電ドリフト特性

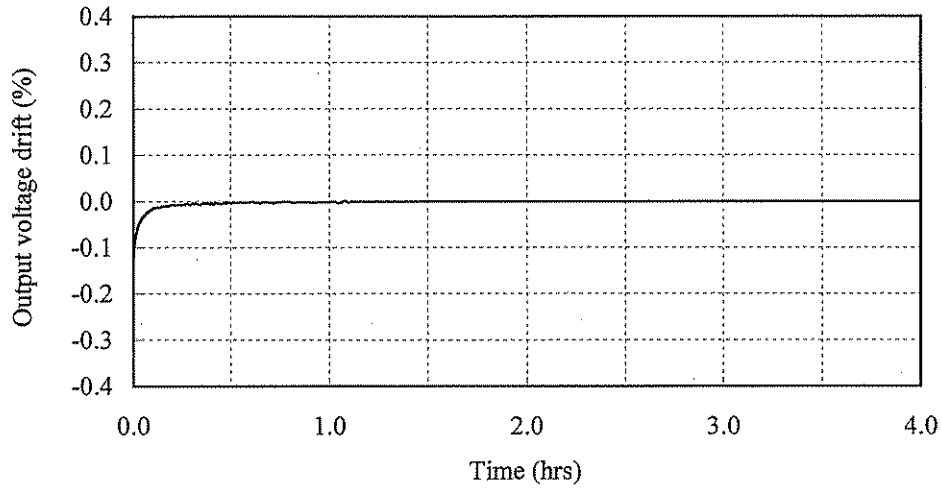
Warm up voltage drift characteristics

Conditions  $V_{in}$  : 24 VDC

$I_{out}$  : 100 %

$T_a$  : 25 °C

PSD6-24-1212

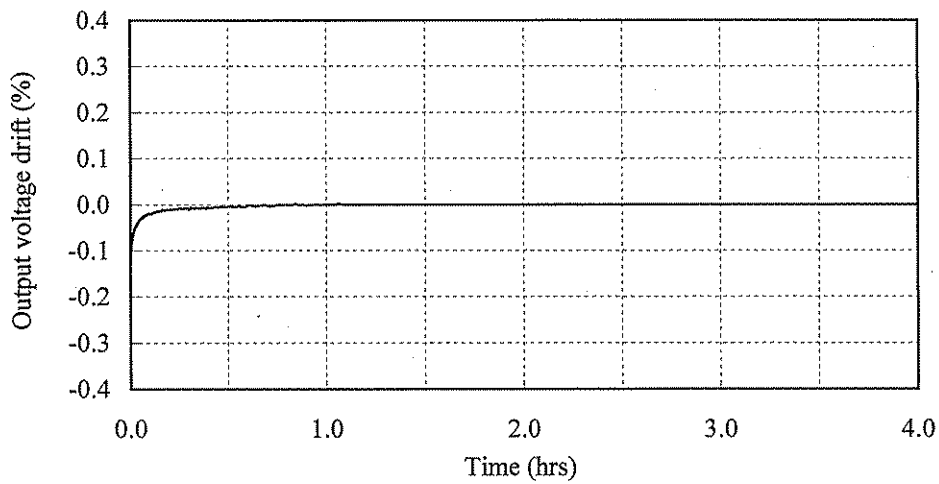


Conditions  $V_{in}$  : 48 VDC

$I_{out}$  : 100 %

$T_a$  : 25 °C

PSD6-48-1212

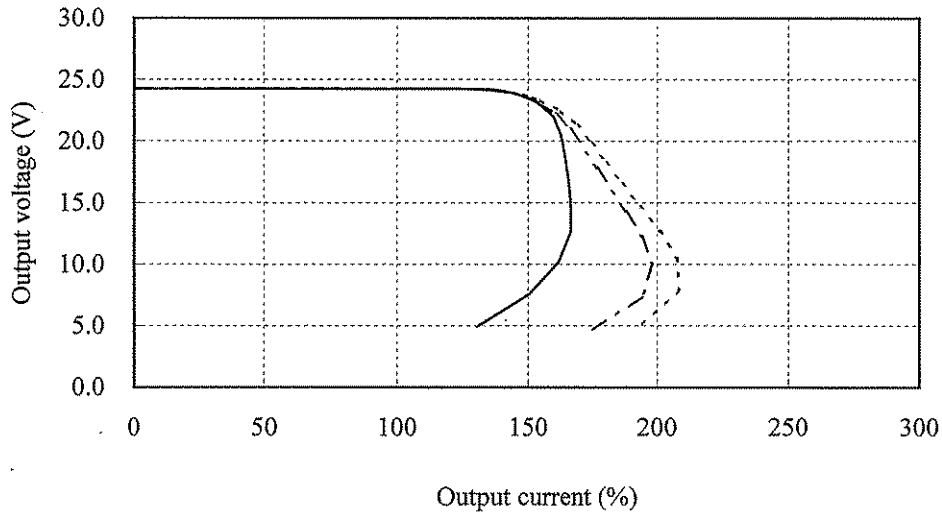


2.3 過電流保護特性

Over current protection (OCP) characteristics

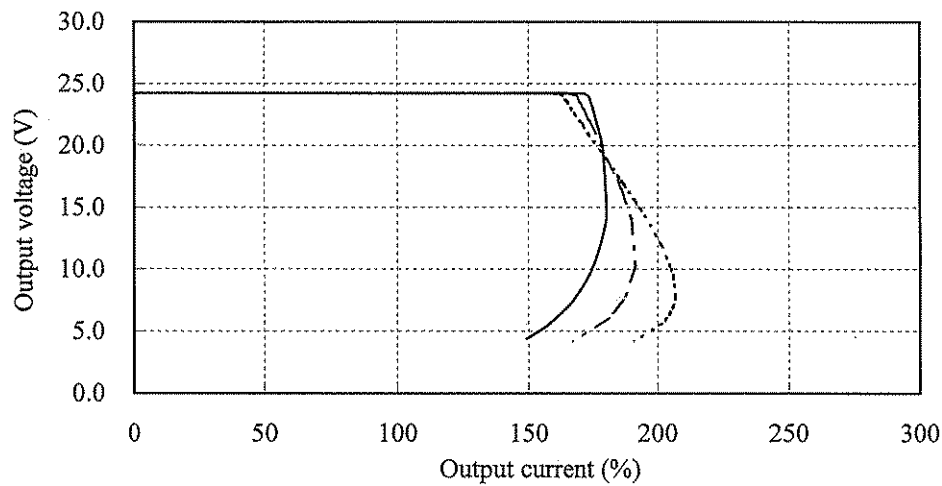
Conditions  $V_{in}$  : 4.5 VDC -----  
 5 VDC -----  
 9 VDC -----  
 $T_a$  : 25 °C

PSD6-5-1212



Conditions  $V_{in}$  : 9 VDC -----  
 12 VDC -----  
 18 VDC -----  
 $T_a$  : 25 °C

PSD6-12-1212



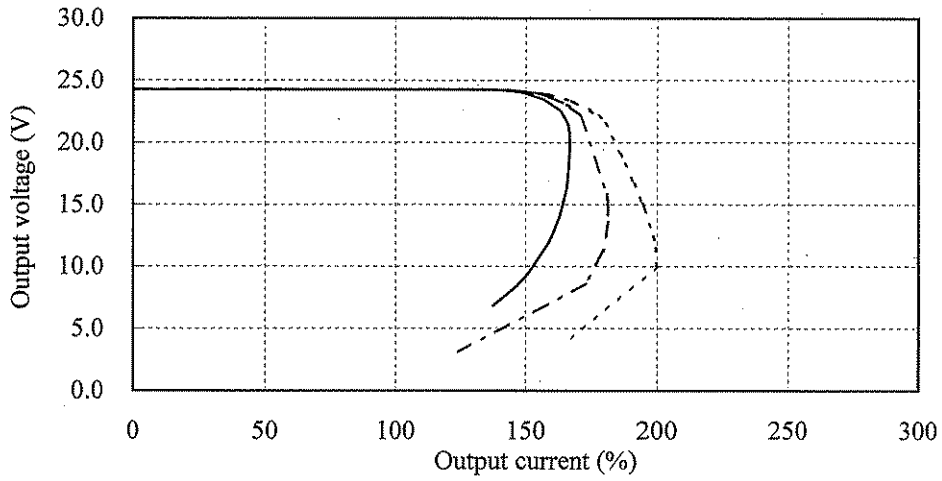


2.3 過電流保護特性

Over current protection (OCP) characteristics

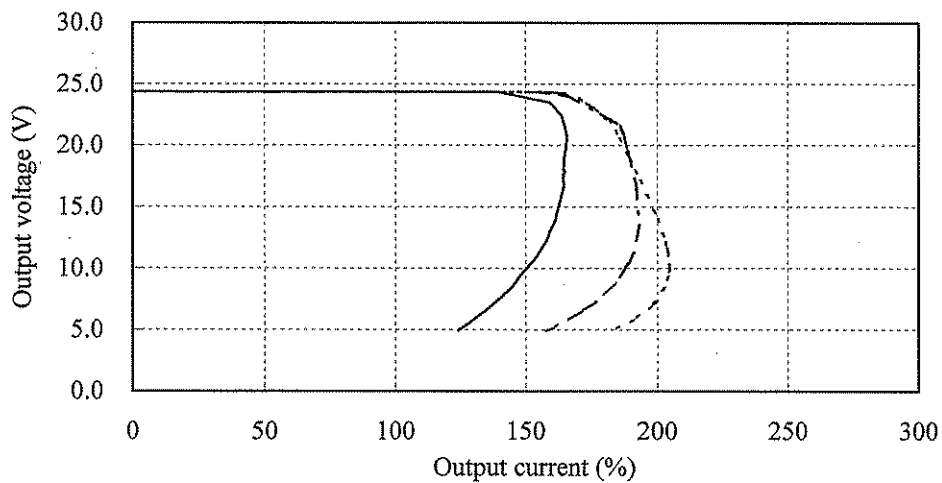
Conditions Vin : 18 VDC -----  
 24 VDC - - - - -  
 36 VDC ————  
 Ta : 25 °C

PSD6-24-1212



Conditions Vin : 36 VDC -----  
 48 VDC - - - - -  
 76 VDC ————  
 Ta : 25 °C

PSD6-48-1212

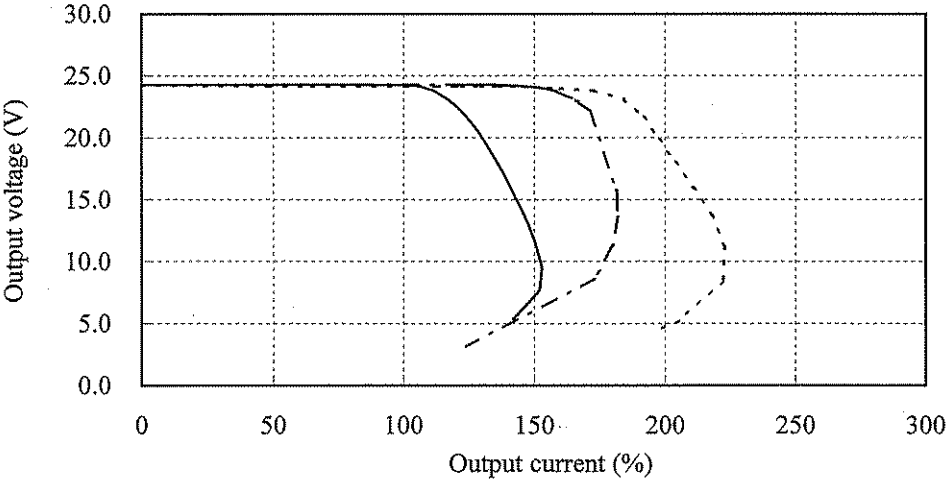


2.3 過電流保護特性

Over current protection (OCP) characteristics

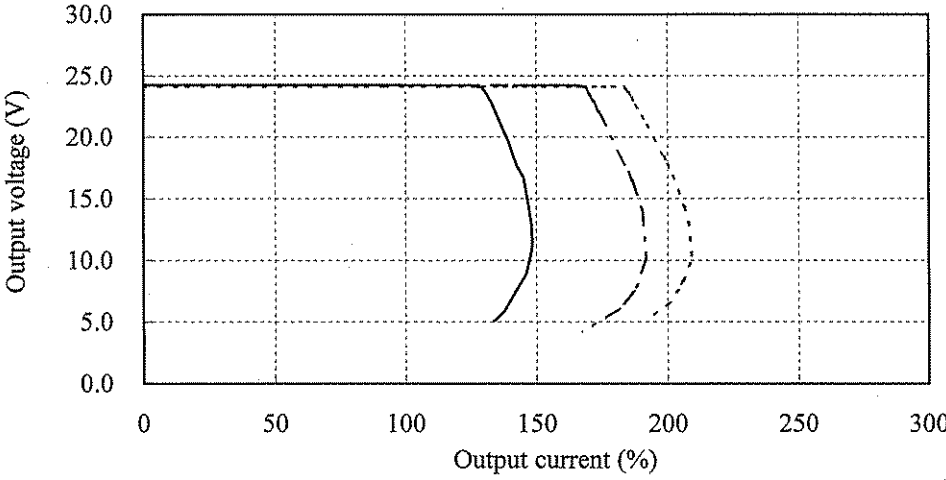
Conditions Vin : 5 VDC  
Ta : -40 °C -----  
25 °C - - - - -  
85 °C ———

PSD6-5-1212



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

PSD6-12-1212



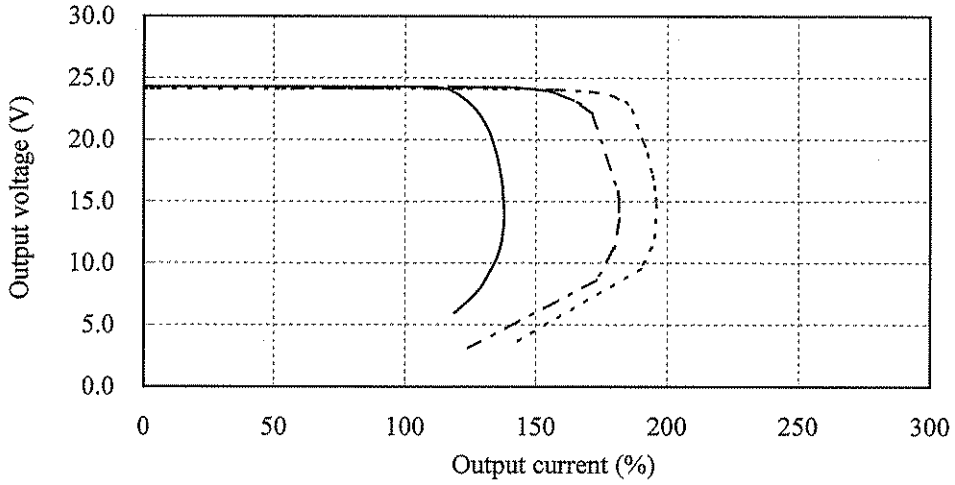
2.3 過電流保護特性

Over current protection (OCP) characteristics

Conditions  $V_{in}$  : 24 VDC

$T_a$  : -40 °C -----  
 25 °C - - - - -  
 85 °C ———

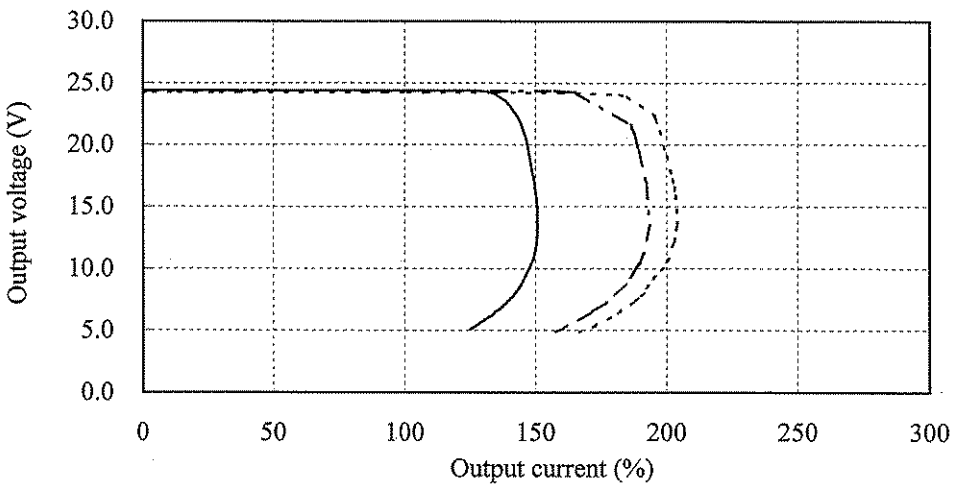
PSD6-24-1212



Conditions  $V_{in}$  : 48 VDC

$T_a$  : -40 °C -----  
 25 °C - - - - -  
 85 °C ———

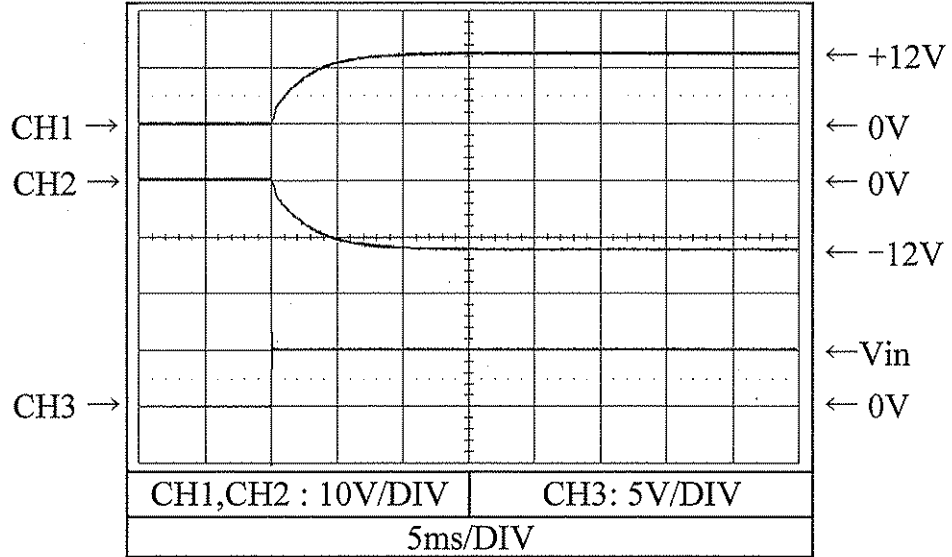
PSD6-48-1212



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

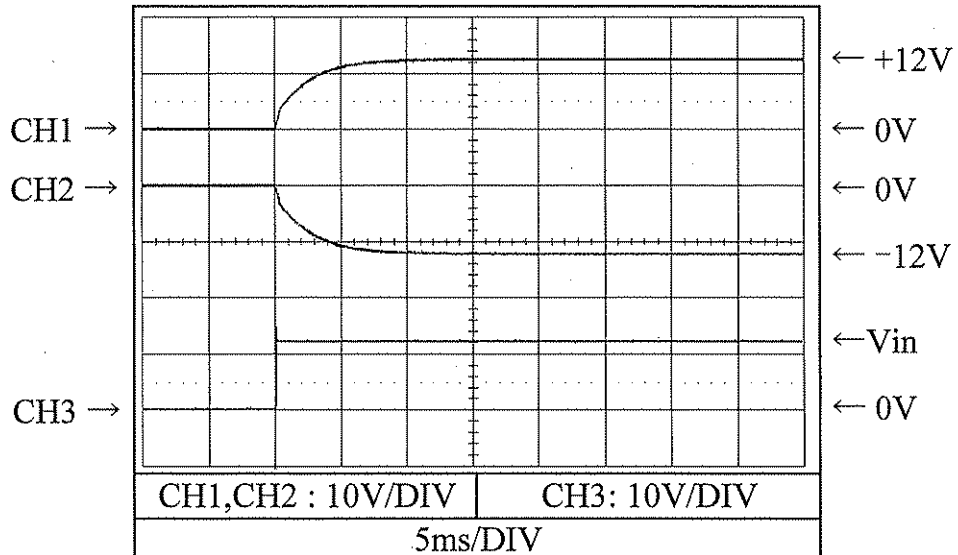
Conditions  $V_{in}$  : 5 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

PSD6-5-1212



Conditions  $V_{in}$  : 12 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

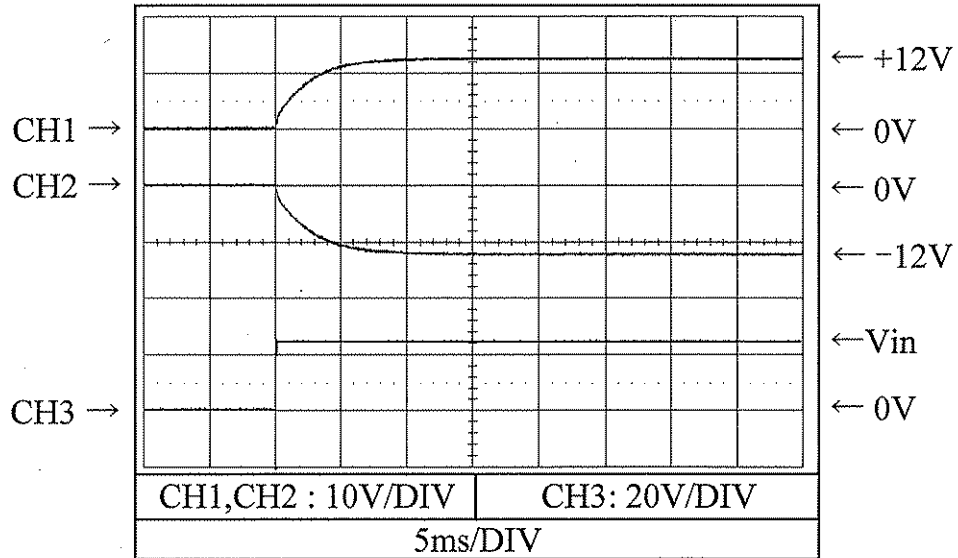
PSD6-12-1212



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

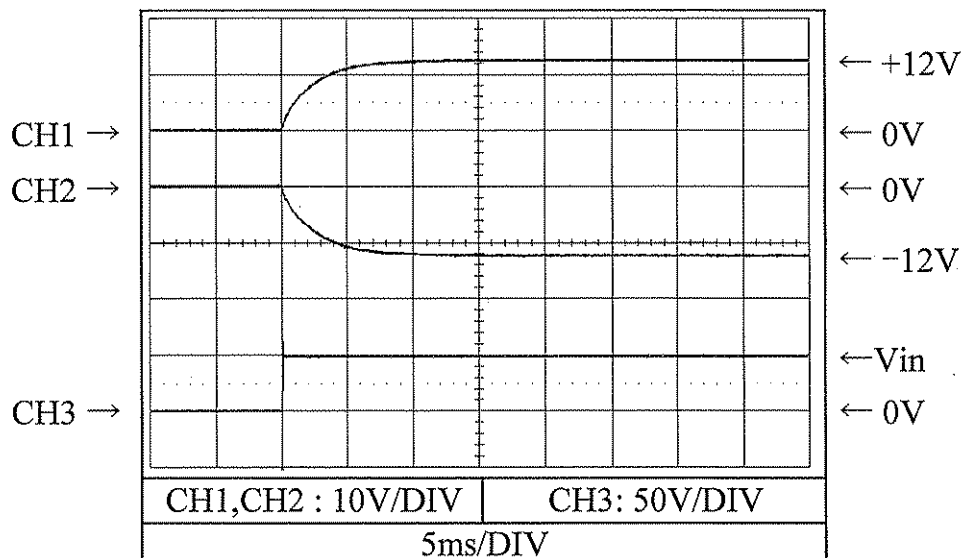
Conditions  $V_{in}$  : 24 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

PSD6-24-1212



Conditions  $V_{in}$  : 48 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

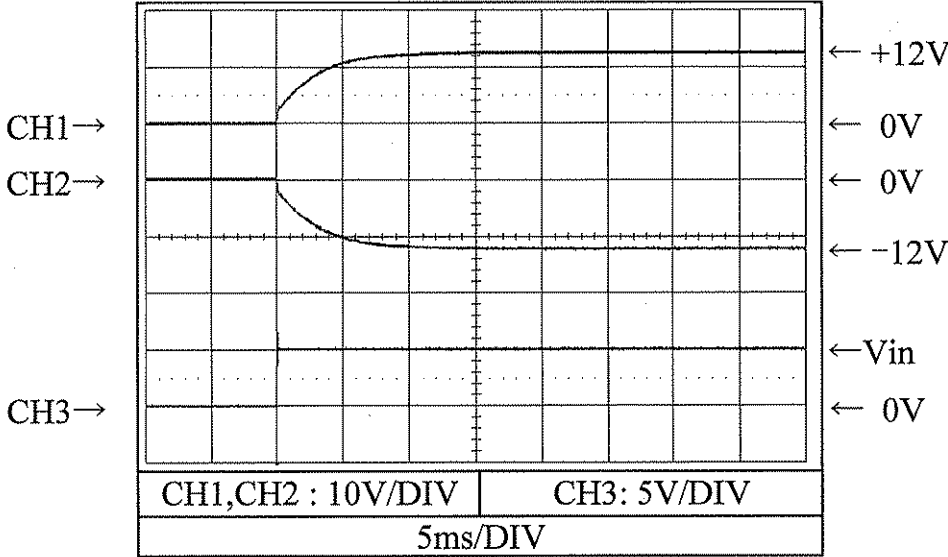
PSD6-48-1212



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

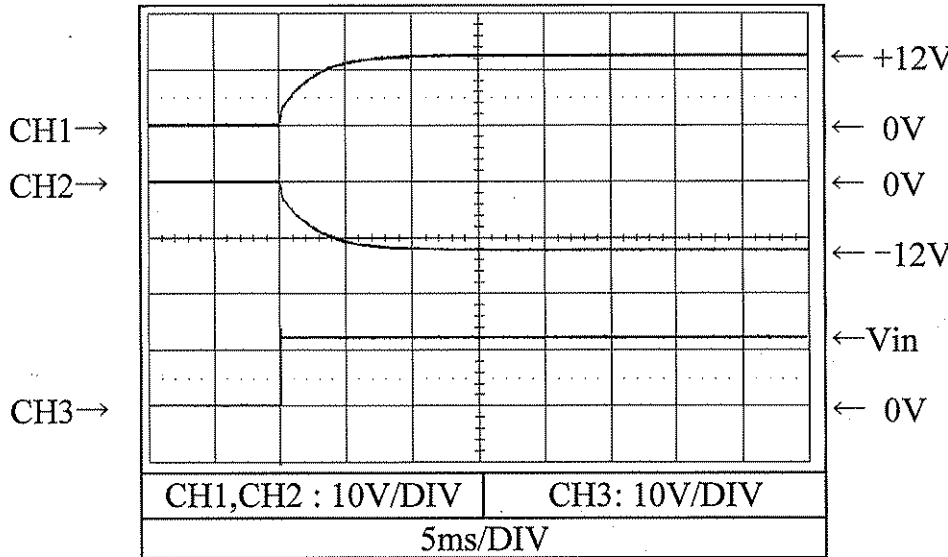
Conditions Vin : 5 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-5-1212



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

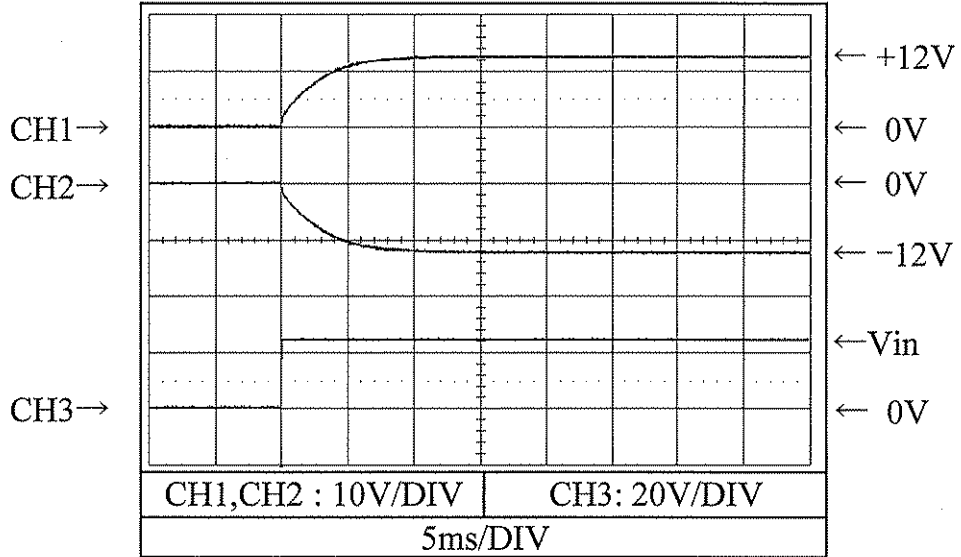
PSD6-12-1212



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

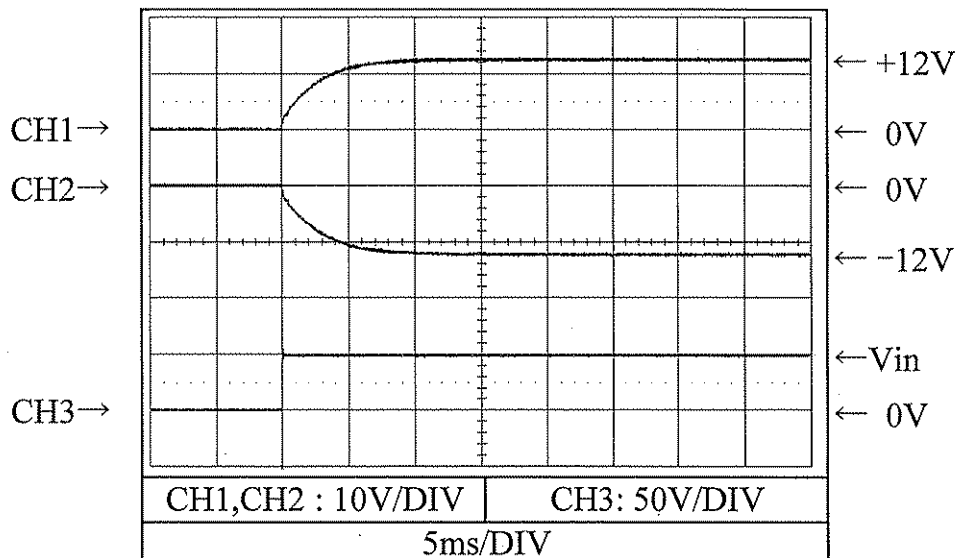
Conditions  $V_{in}$  : 24 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

PSD6-24-1212



Conditions  $V_{in}$  : 48 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

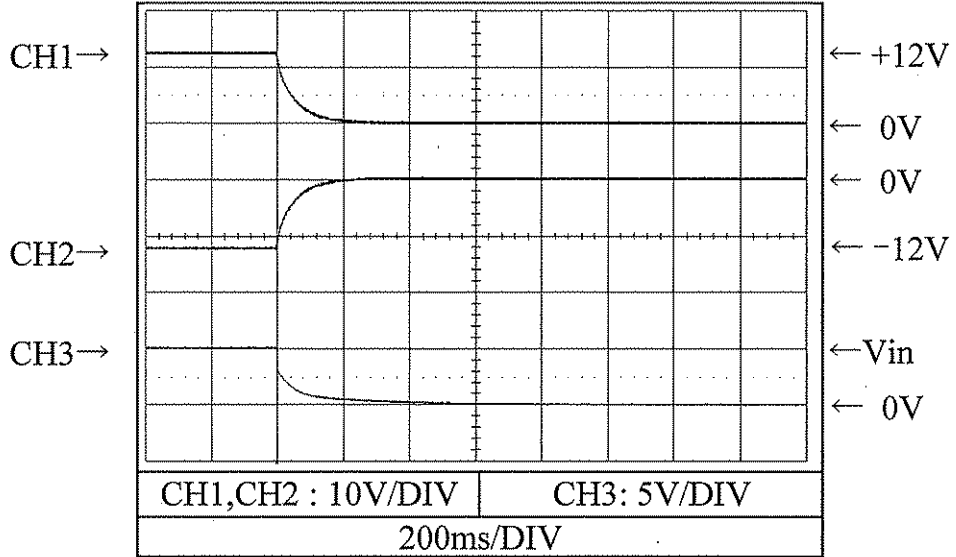
PSD6-48-1212



2.5 出力立ち下がり特性  
Output fall characteristics

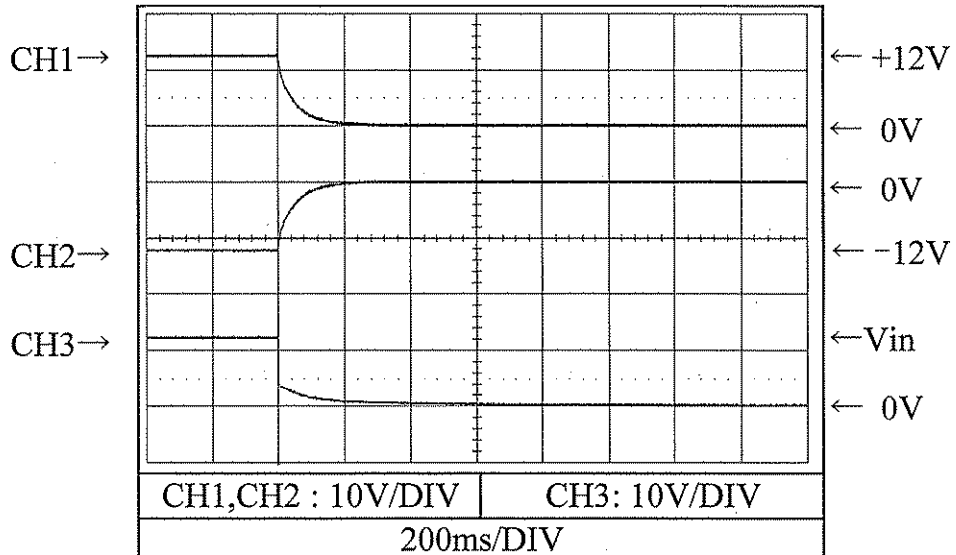
Conditions Vin : 5 VDC  
Iout : 0 %  
Ta : 25 °C

PSD6-5-1212



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

PSD6-12-1212

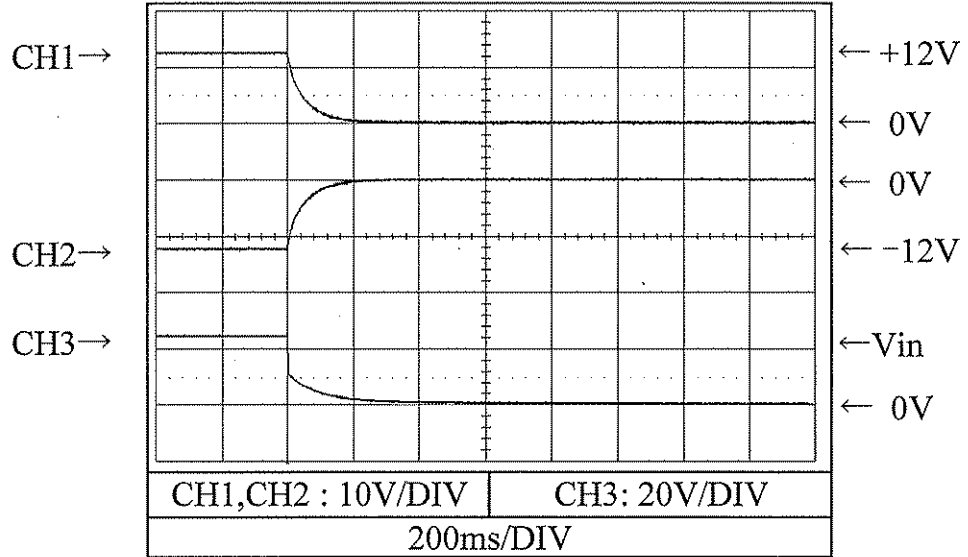




2.5 出力立ち下がり特性  
Output fall characteristics

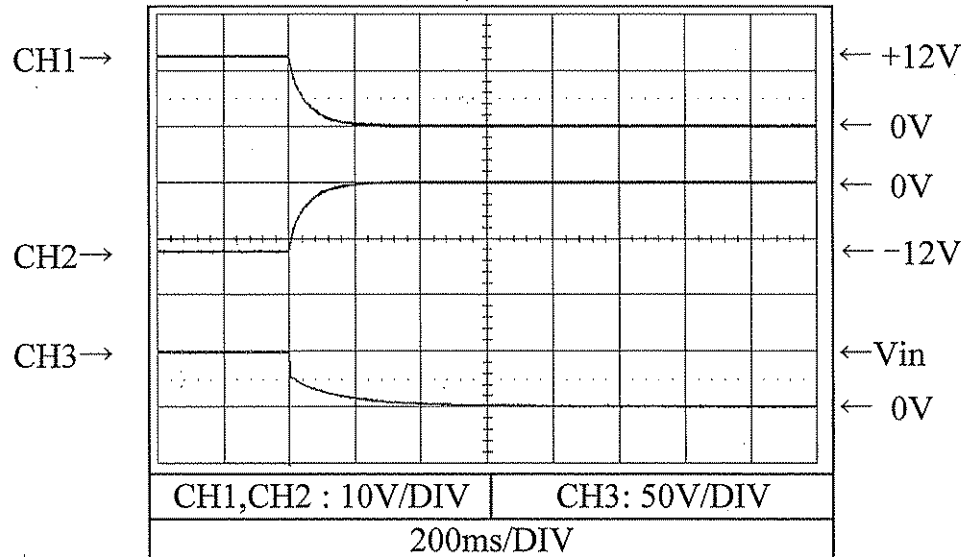
Conditions  $V_{in}$  : 24 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

PSD6-24-1212



Conditions  $V_{in}$  : 48 VDC  
 $I_{out}$  : 0 %  
 $T_a$  : 25 °C

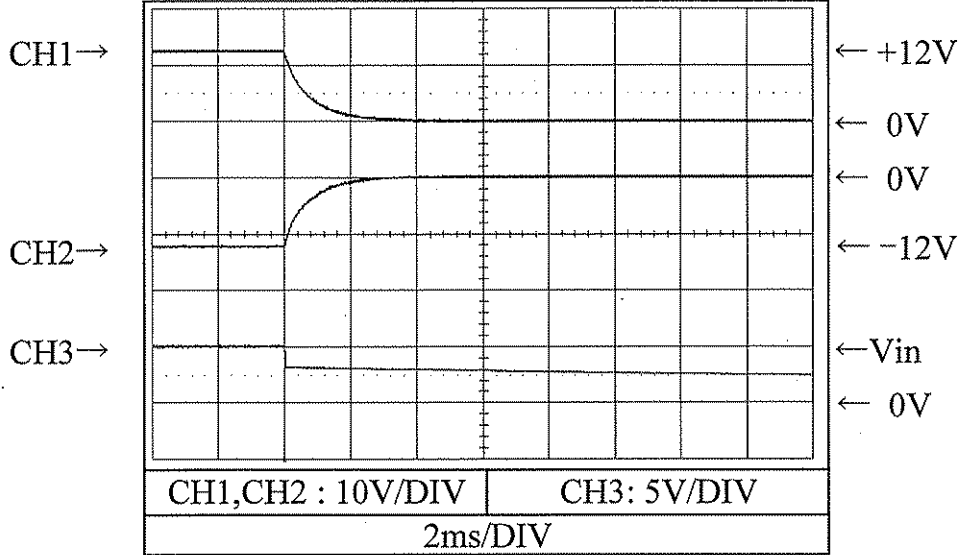
PSD6-48-1212



2.5 出力立ち下がり特性  
Output fall characteristics

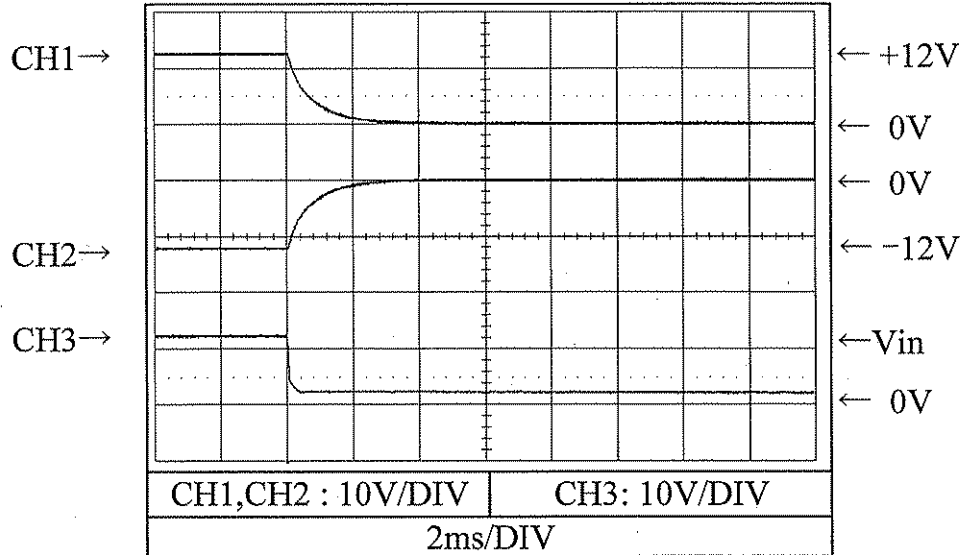
Conditions Vin : 5 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-5-1212



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

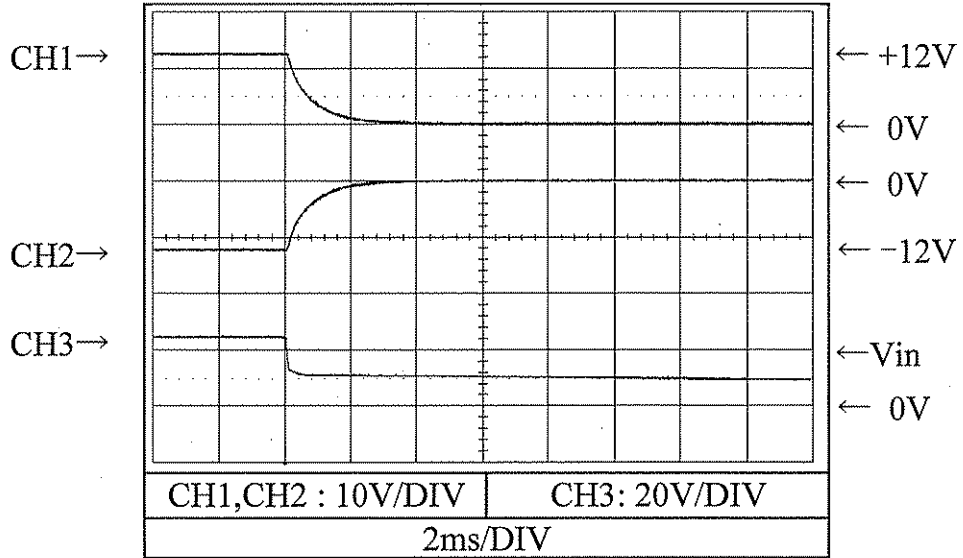
PSD6-12-1212



2.5 出力立ち下がり特性  
Output fall characteristics

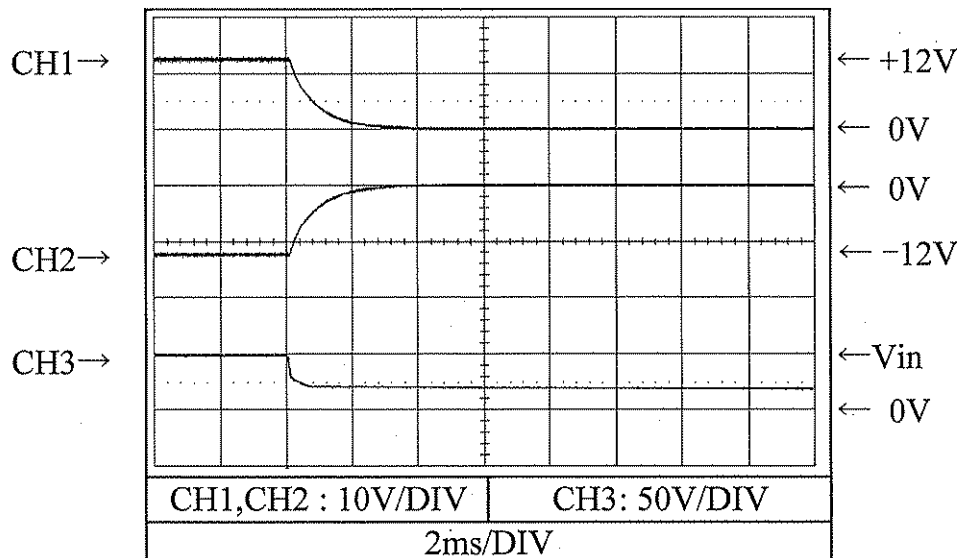
Conditions  $V_{in}$  : 24 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

PSD6-24-1212



Conditions  $V_{in}$  : 48 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

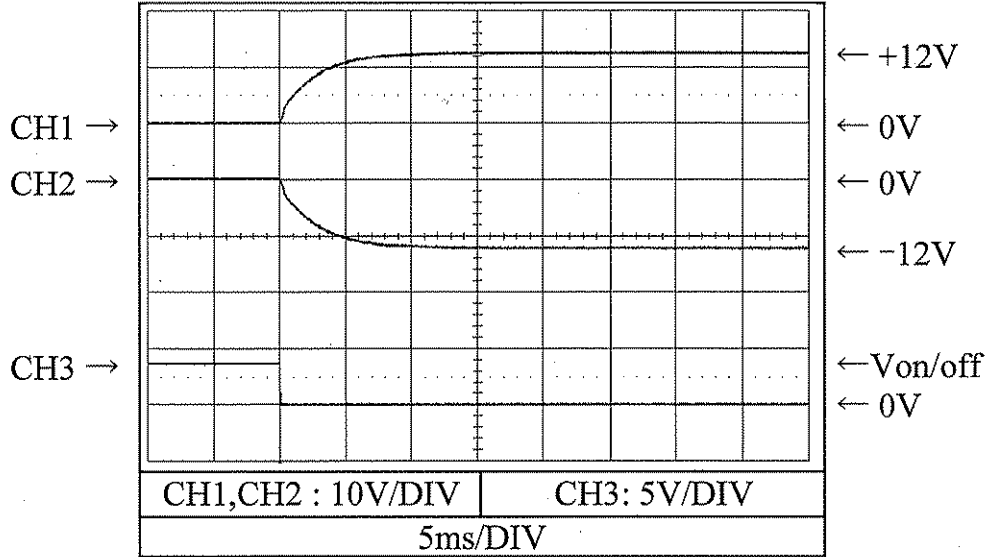
PSD6-48-1212



2.6 出力立ち上がり特性 (ON/OFFコントロール時)  
 Output rise characteristics with ON/OFF CONTROL

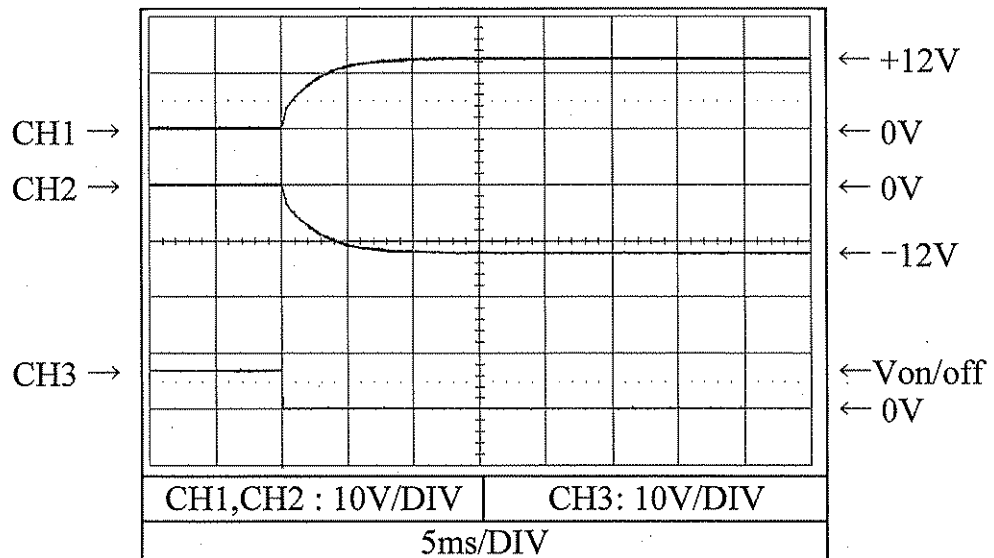
Conditions Vin : 5 VDC  
 Iout : 0 %  
 Ta : 25 °C

PSD6-5-1212



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

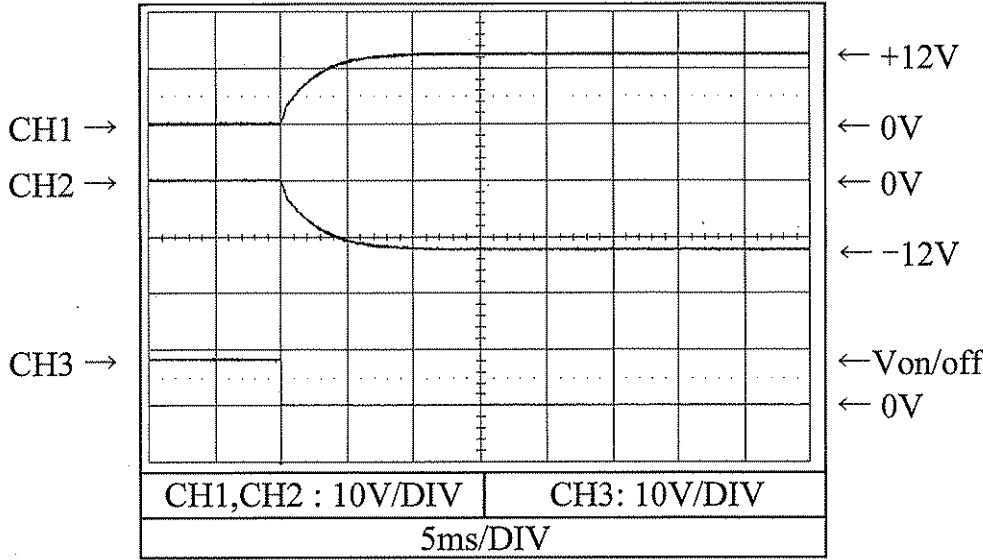
PSD6-12-1212



2.6 出力立ち上がり特性 (ON/OFFコントロール時)  
Output rise characteristics with ON/OFF CONTROL

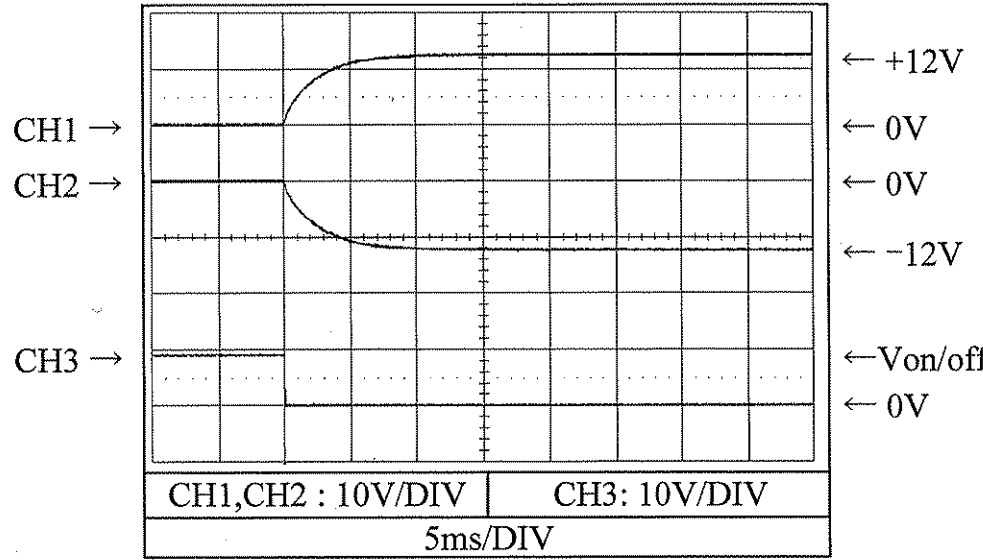
Conditions Vin : 24 VDC  
Iout : 0 %  
Ta : 25 °C

PSD6-24-1212



Conditions Vin : 48 VDC  
Iout : 0 %  
Ta : 25 °C

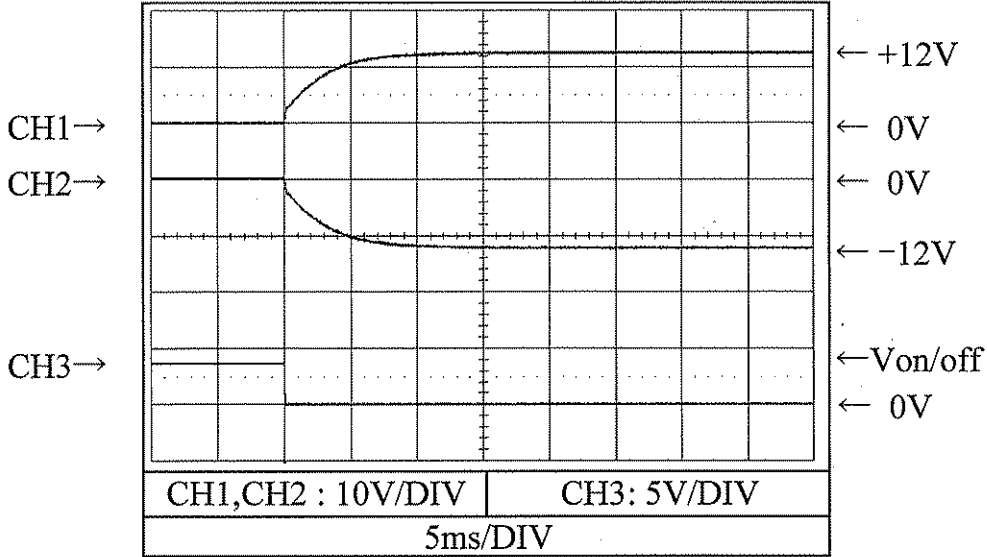
PSD6-48-1212



2.6 出力立ち上がり特性 (ON/OFFコントロール時)  
Output rise characteristics with ON/OFF CONTROL

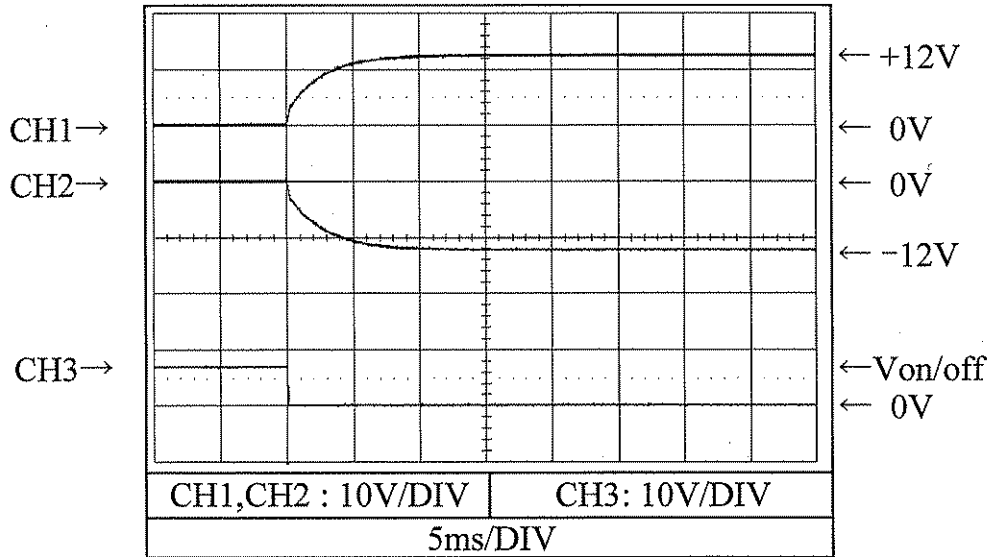
Conditions Vin : 5 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-5-1212



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

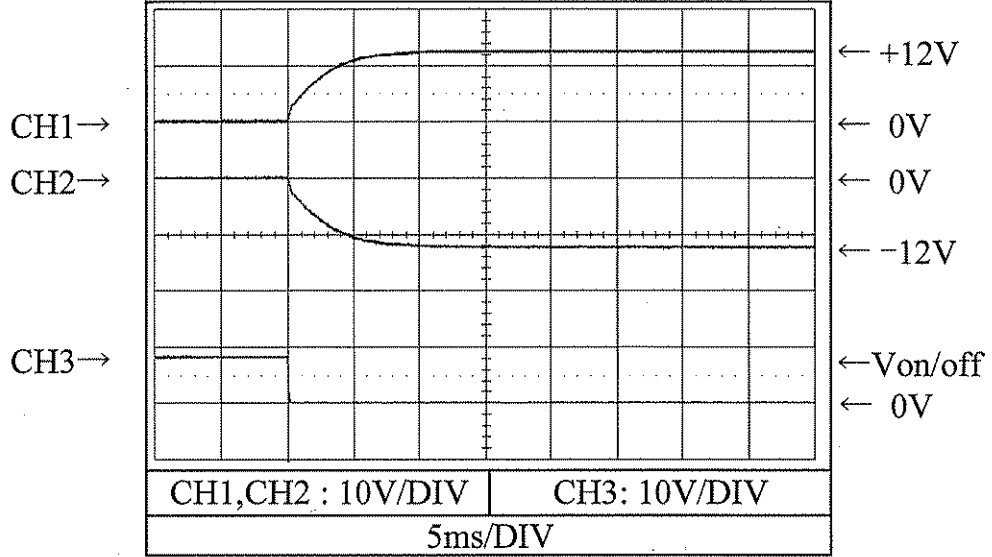
PSD6-12-1212



2.6 出力立ち上がり特性 (ON/OFFコントロール時)  
Output rise characteristics with ON/OFF CONTROL

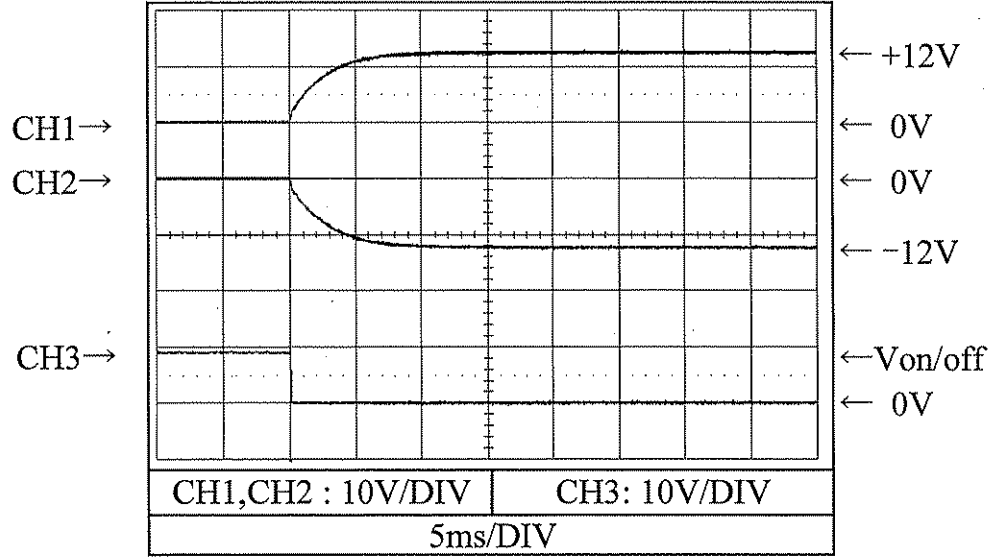
Conditions Vin : 24 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-24-1212



Conditions Vin : 48 VDC  
Iout : 100 %  
Ta : 25 °C

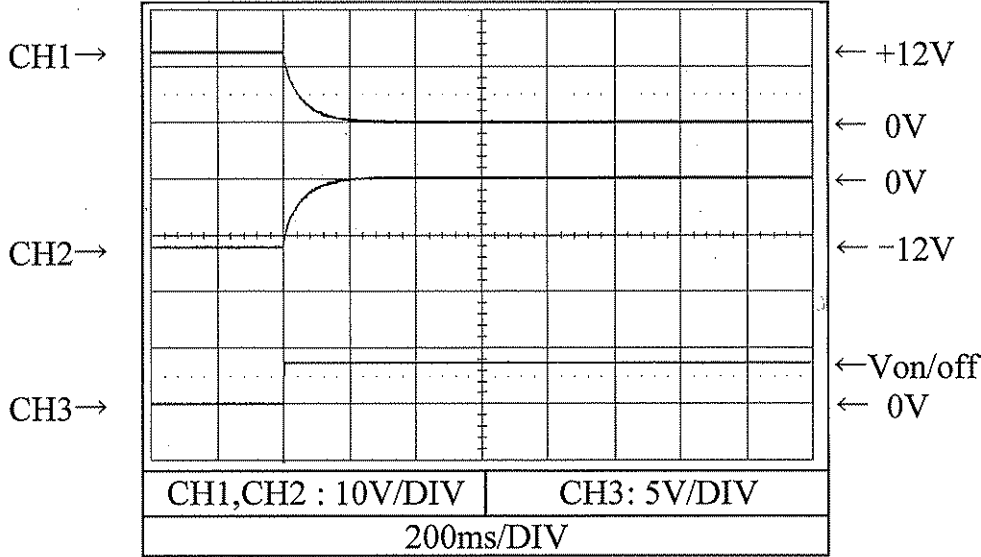
PSD6-48-1212



2.7 出力立ち下がり特性 (ON/OFFコントロール時)  
Output fall characteristics with ON/OFF CONTROL

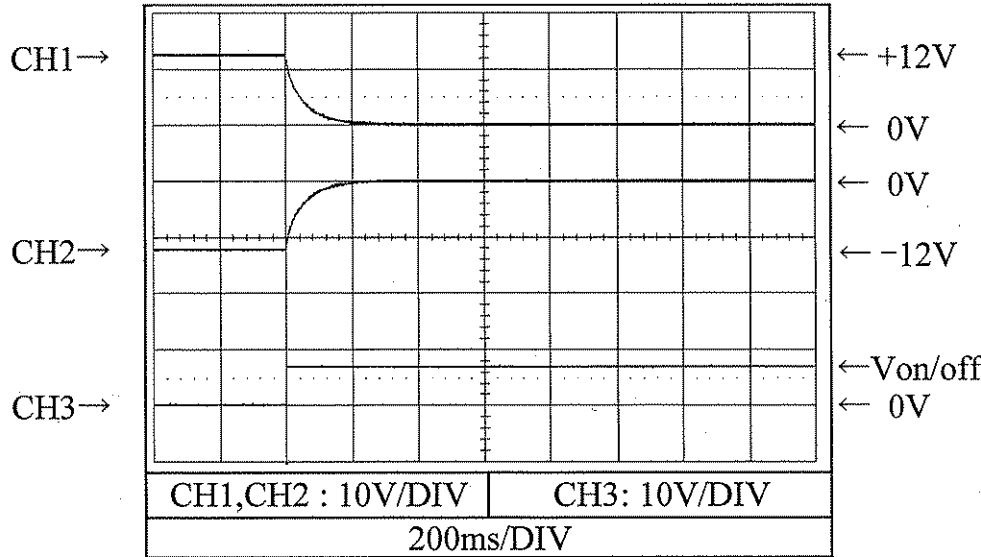
Conditions Vin : 5 VDC  
Iout : 0 %  
Ta : 25 °C

PSD6-5-1212



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

PSD6-12-1212



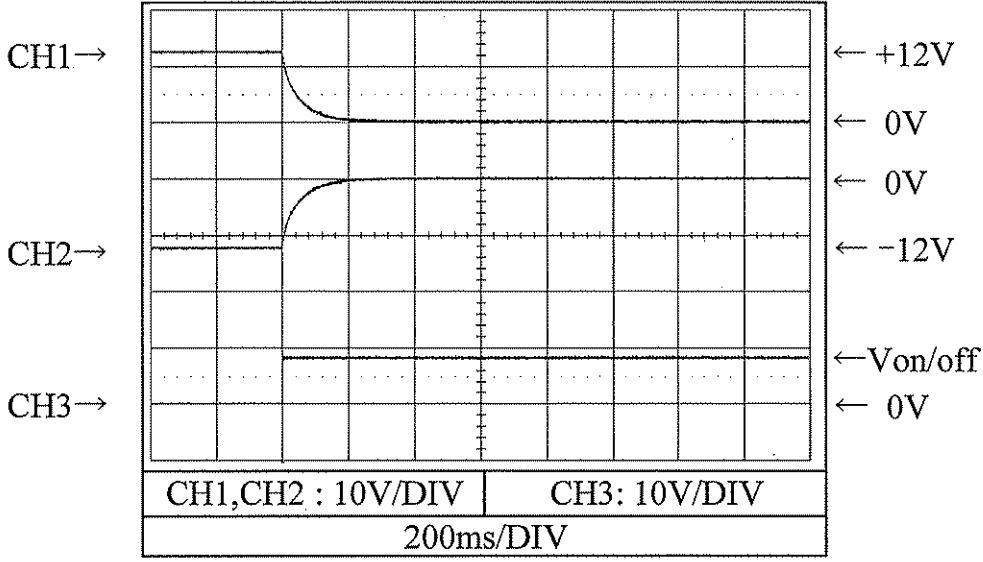


**PSD6-\* -1212**

2.7 出力立ち下がり特性 (ON/OFFコントロール時)  
Output fall characteristics with ON/OFF CONTROL

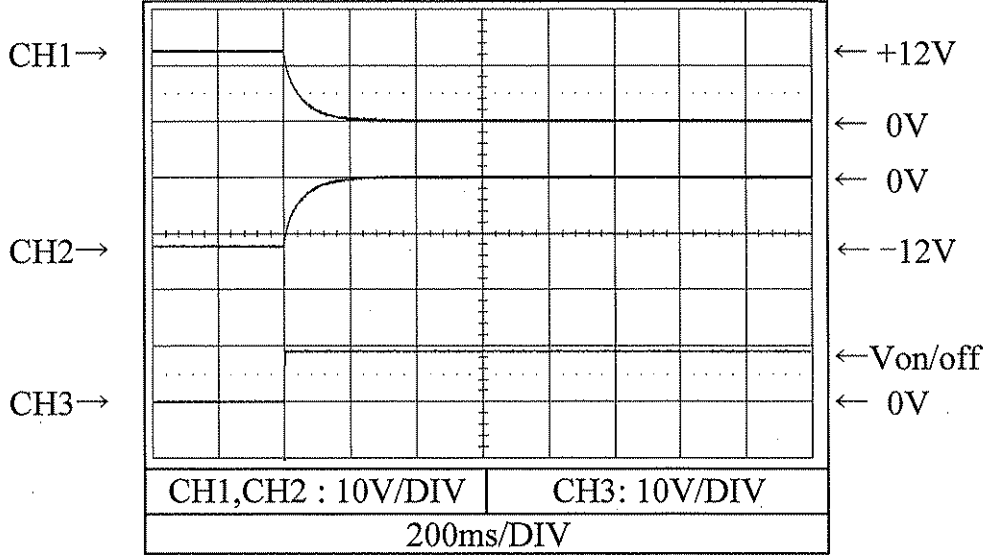
Conditions Vin : 24 VDC  
Iout : 0 %  
Ta : 25 °C

**PSD6-24-1212**



Conditions Vin : 48 VDC  
Iout : 0 %  
Ta : 25 °C

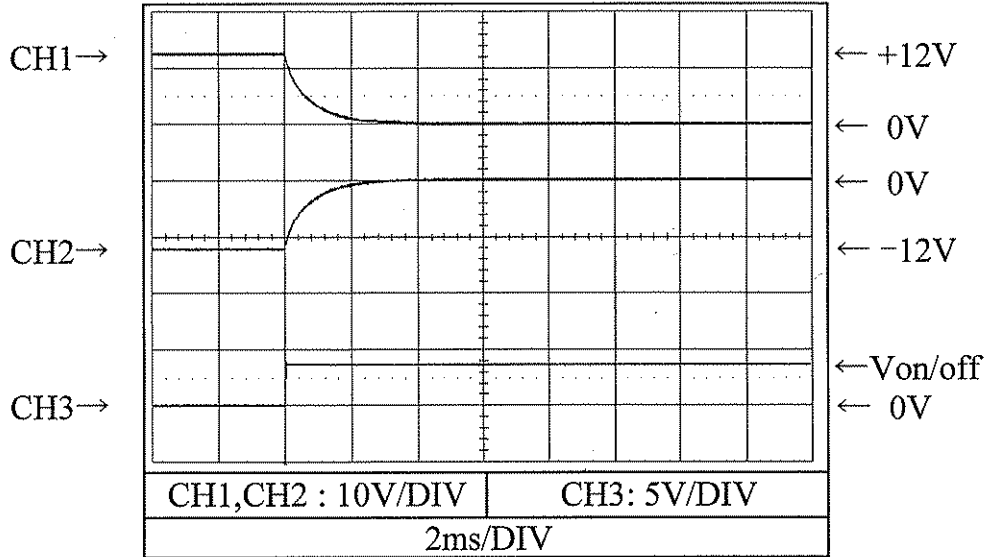
**PSD6-48-1212**



2.7 出力立ち下がり特性 (ON/OFFコントロール時)  
Output fall characteristics with ON/OFF CONTROL

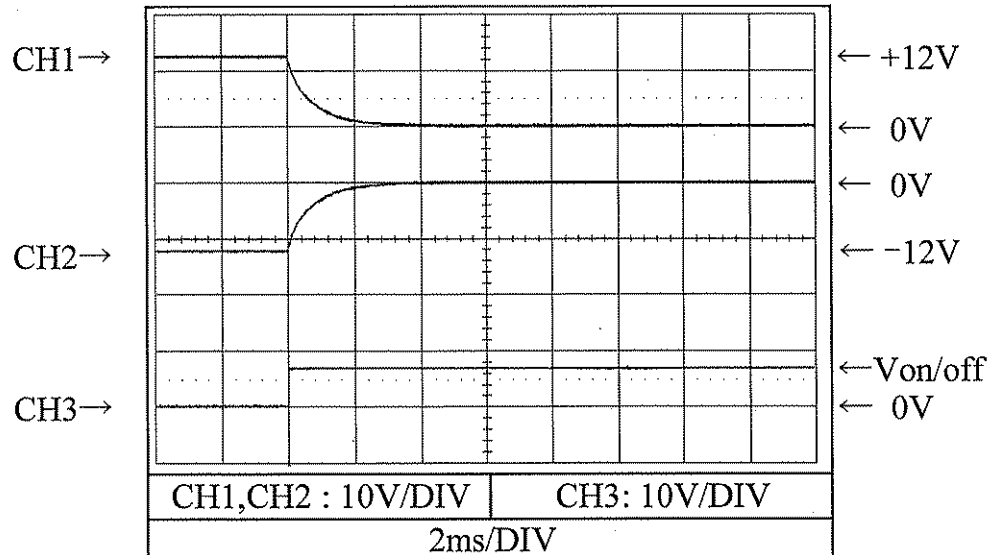
Conditions Vin : 5 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-5-1212



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

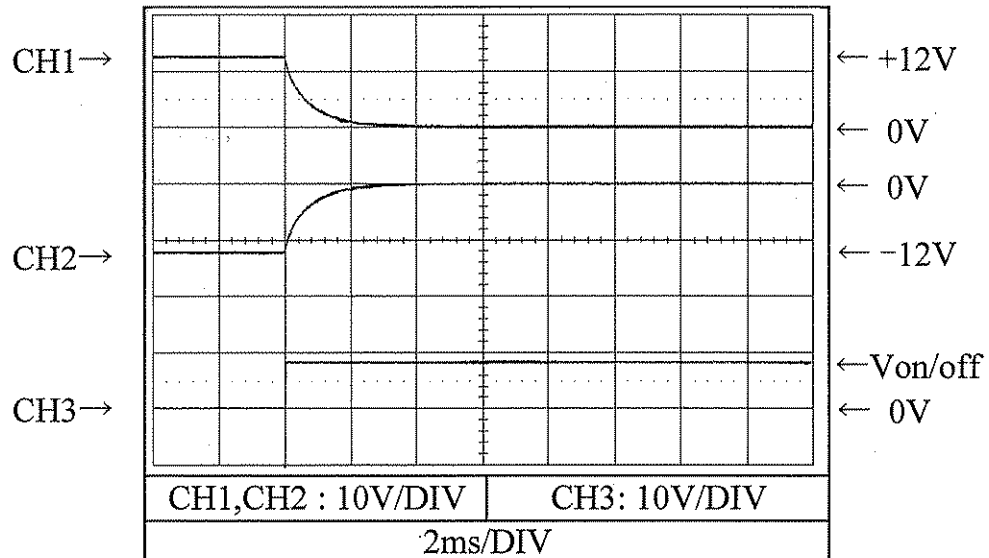
PSD6-12-1212



2.7 出力立ち下がり特性 (ON/OFFコントロール時)  
Output fall characteristics with ON/OFF CONTROL

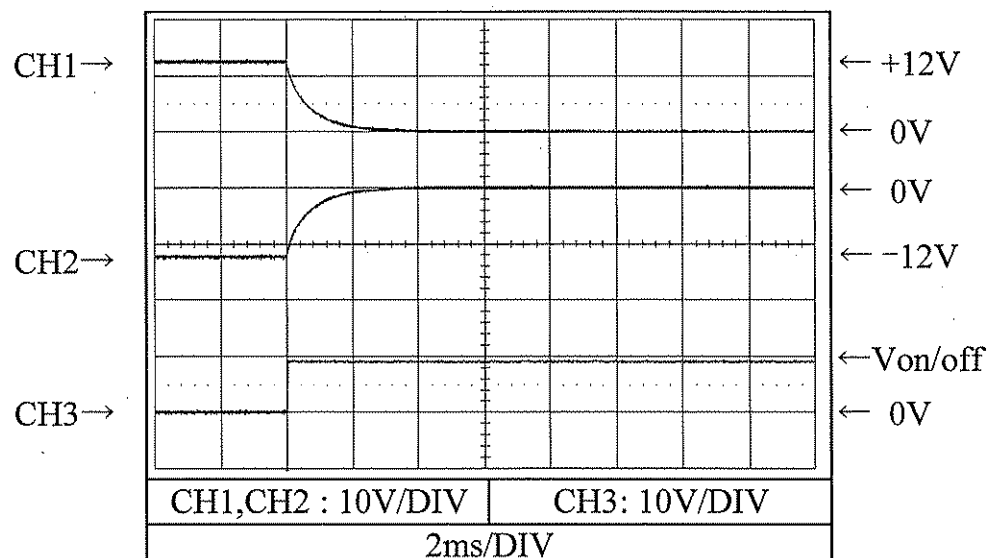
Conditions Vin : 24 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-24-1212



Conditions Vin : 48 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-48-1212

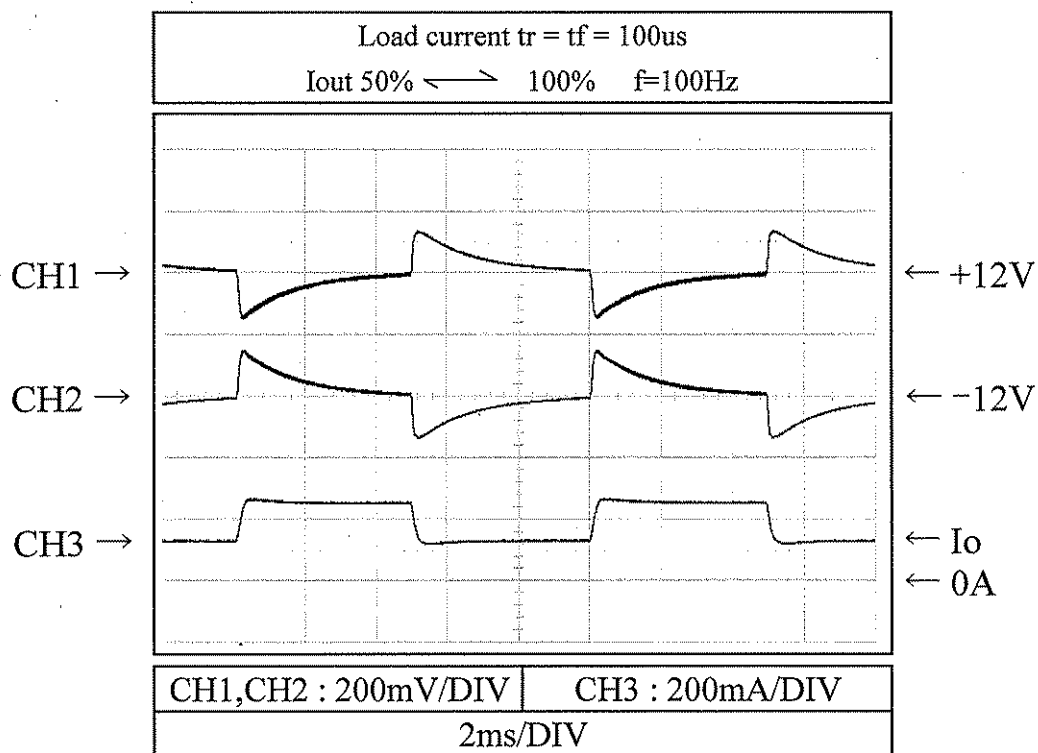


2.8 過渡応答（負荷急変）特性  
Dynamic load response characteristics

PSD6-\* -1212

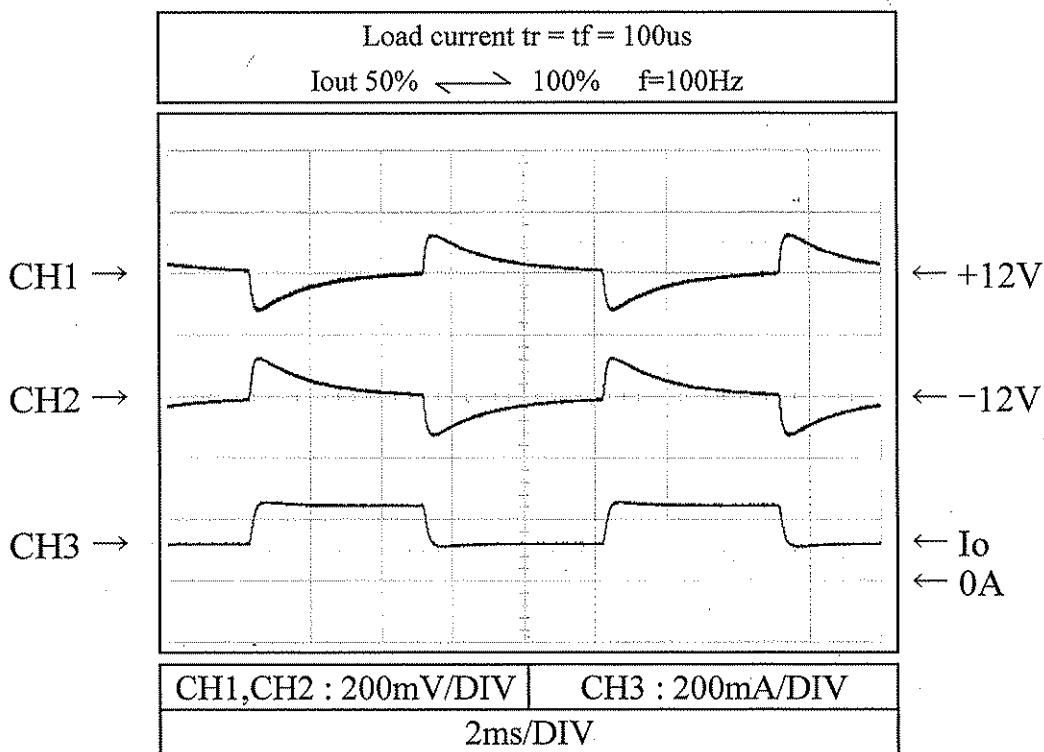
Conditions  $V_{in}$  : 5 VDC  
 $T_a$  : 25 °C

PSD6-5-1212



Conditions  $V_{in}$  : 12 VDC  
 $T_a$  : 25 °C

PSD6-12-1212

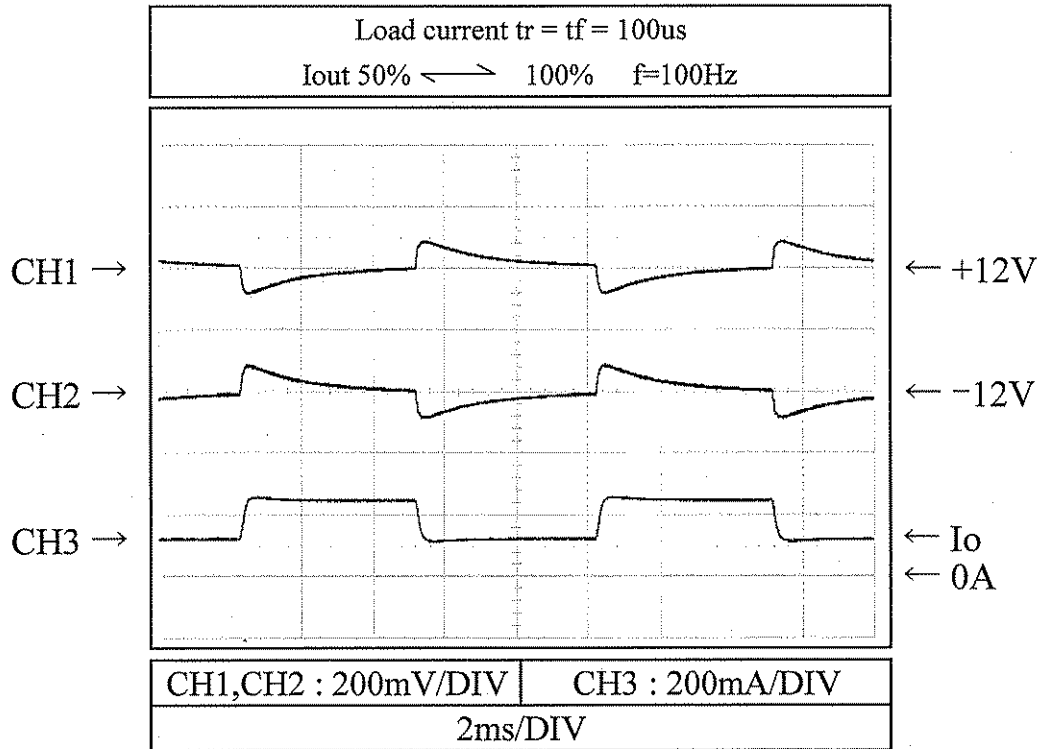


2.8 過渡応答（負荷急変）特性  
Dynamic load response characteristics

PSD6-\* -1212

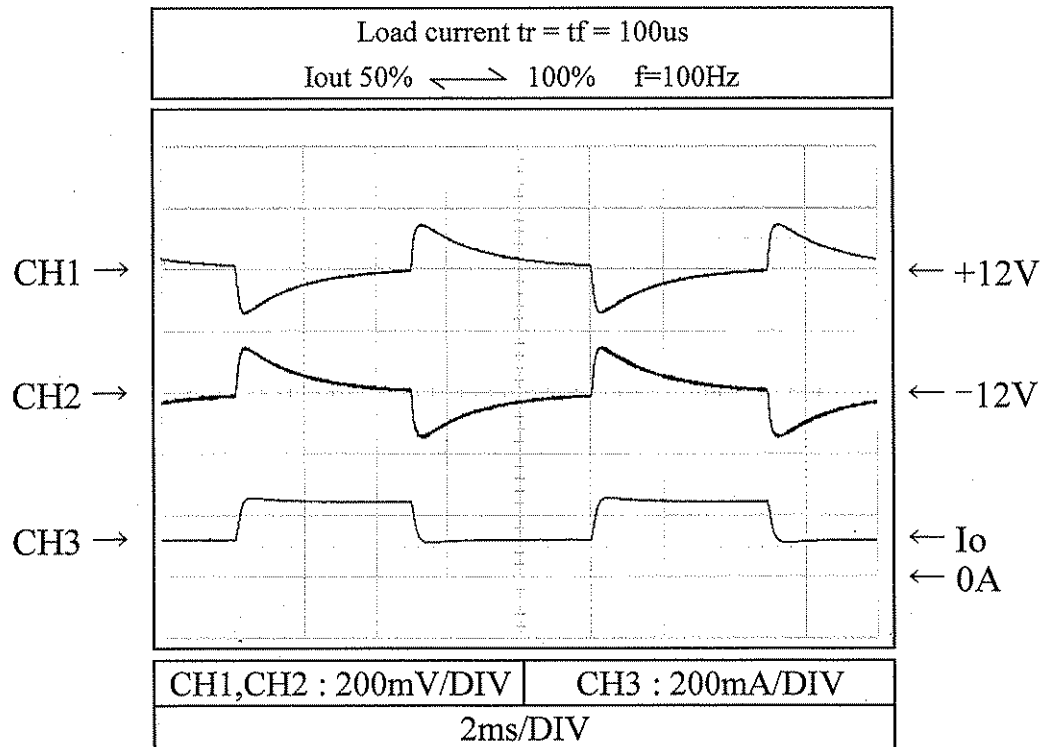
Conditions Vin : 24 VDC  
Ta : 25 °C

PSD6-24-1212



Conditions Vin : 48 VDC  
Ta : 25 °C

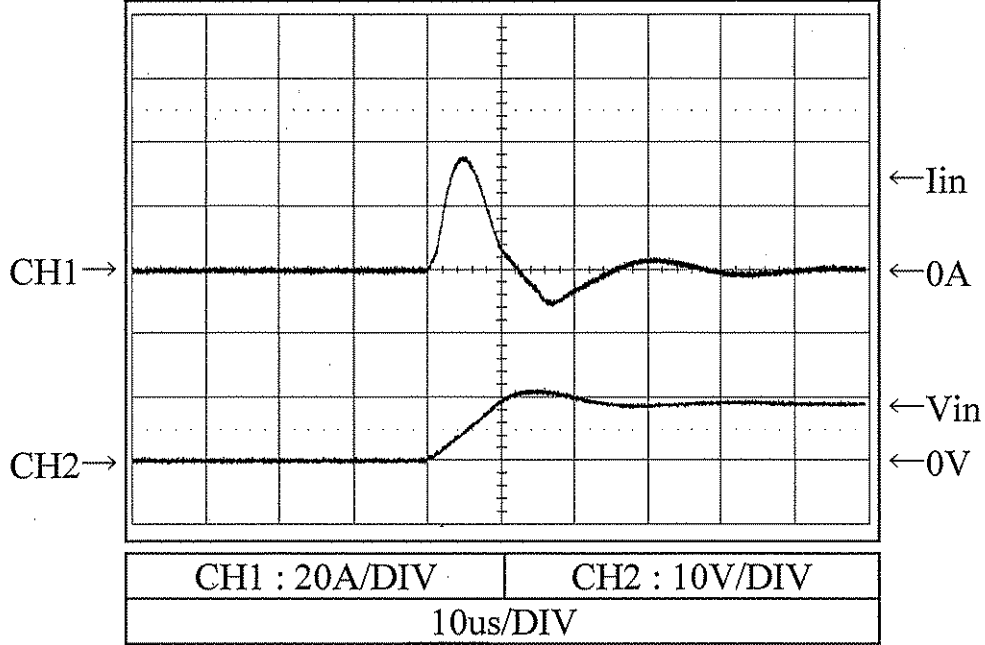
PSD6-48-1212



2.9 入力サージ電流 (突入電流) 特性  
Inrush current waveform

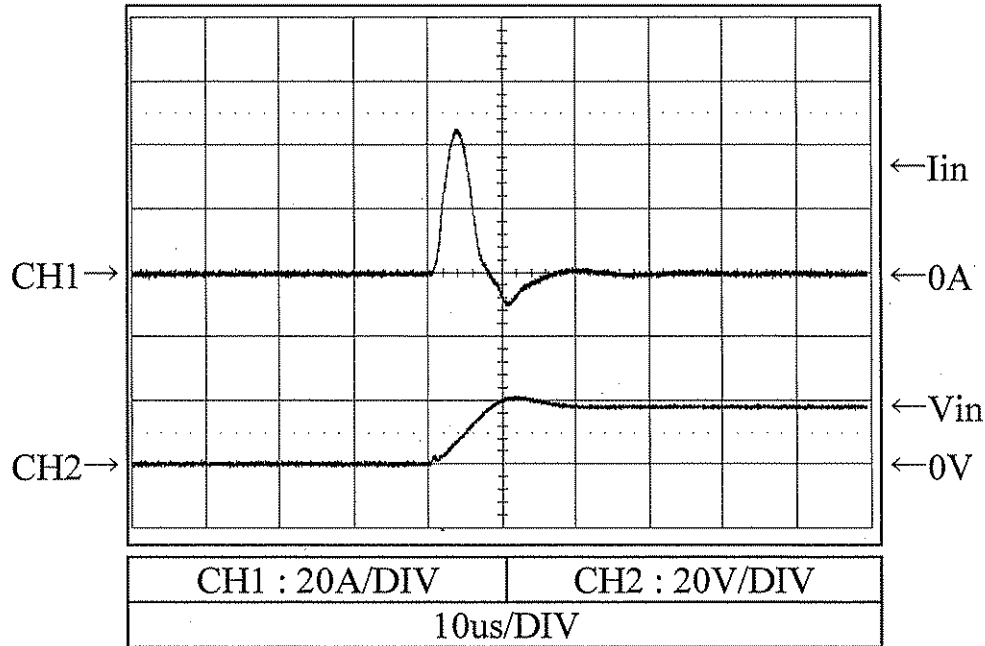
Conditions Vin : 9 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-5-1212



Conditions Vin : 18 VDC  
Iout : 100 %  
Ta : 25 °C

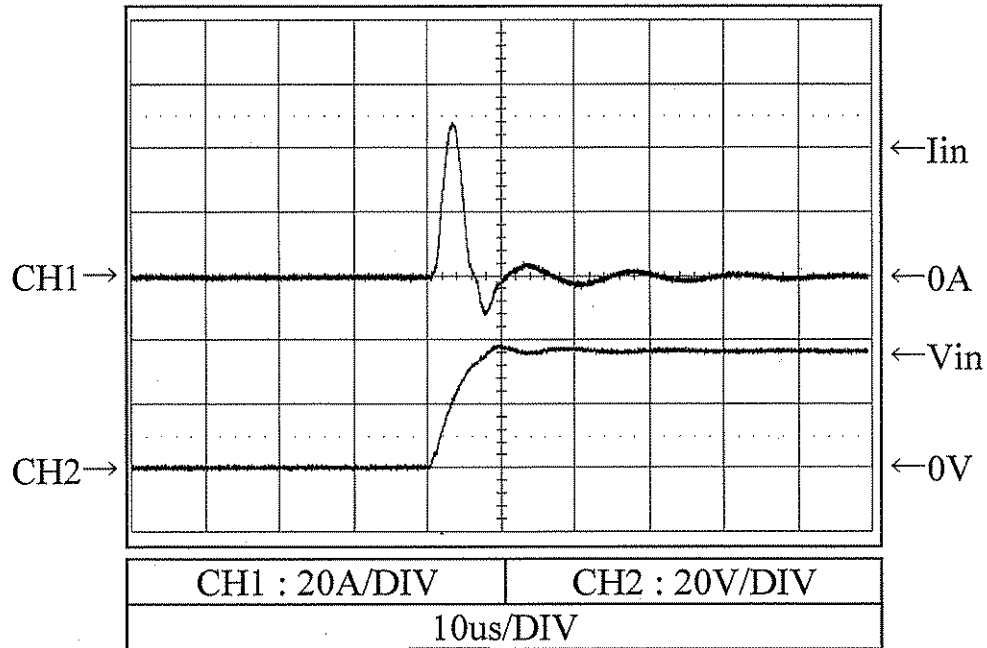
PSD6-12-1212



2.9 入力サージ電流 (突入電流) 特性  
Inrush current waveform

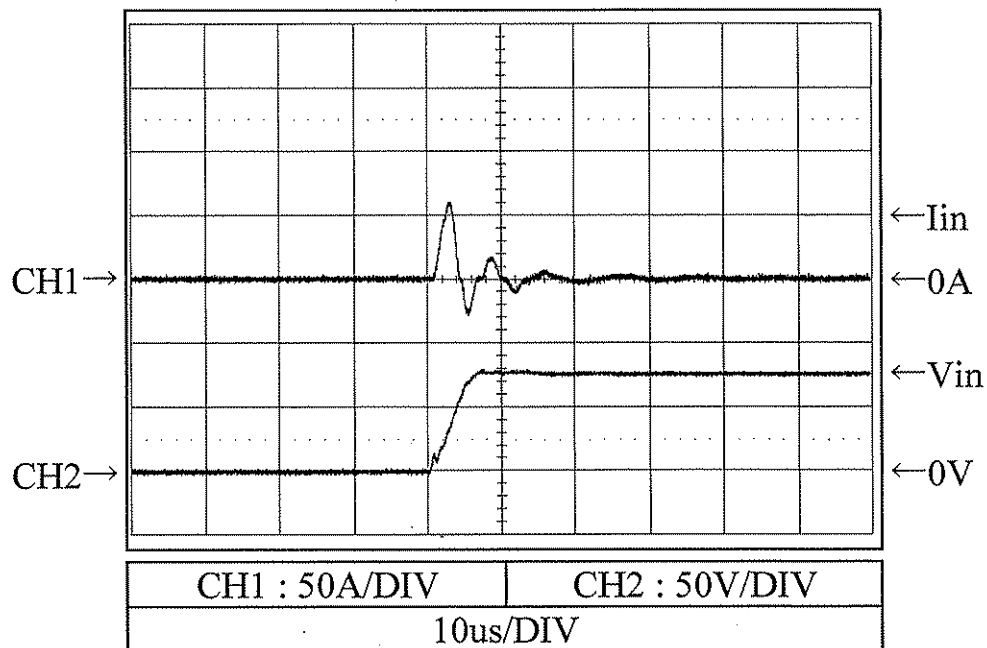
Conditions Vin : 36 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-24-1212



Conditions Vin : 76 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-48-1212

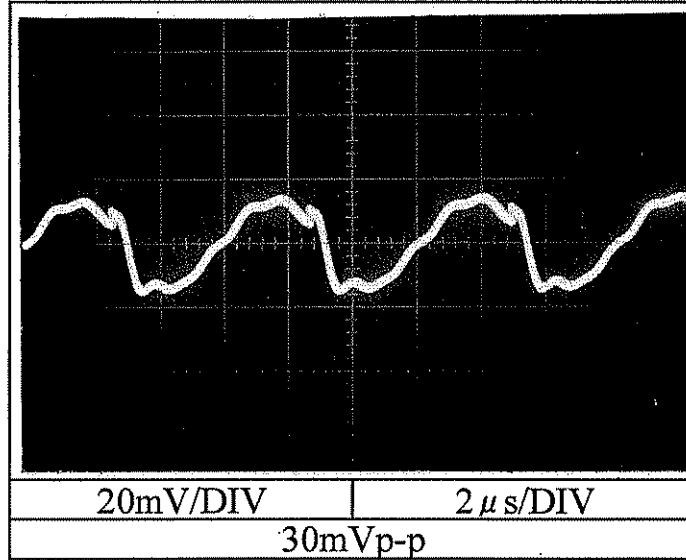


2.10 出力リップル、ノイズ波形  
Output ripple and noise waveform

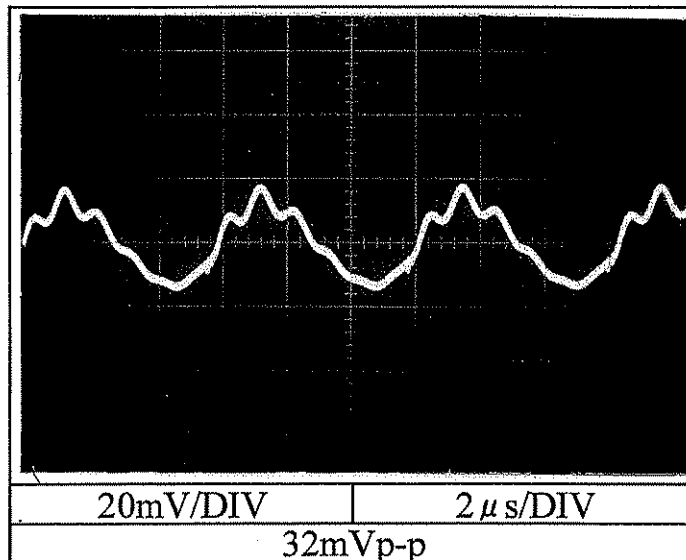
PSD6-5-1212

Conditions  $V_{in}$  : 5 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

12V (CH1)



-12V (CH2)



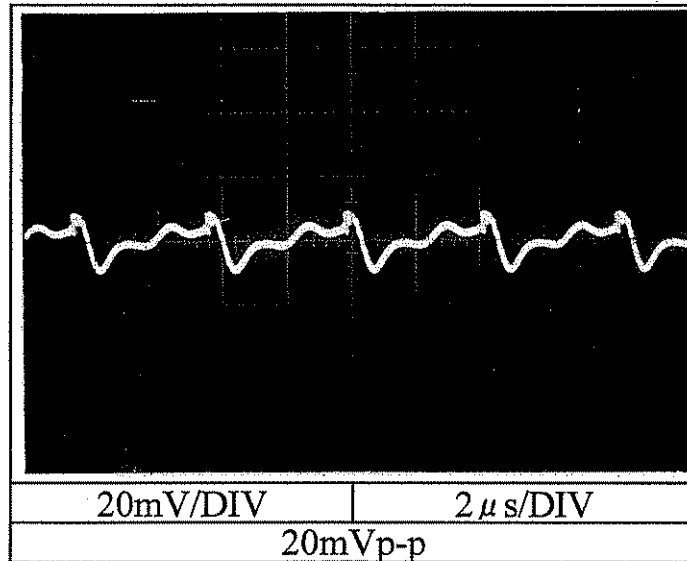


2.10 出力リップル、ノイズ波形  
Output ripple and noise waveform

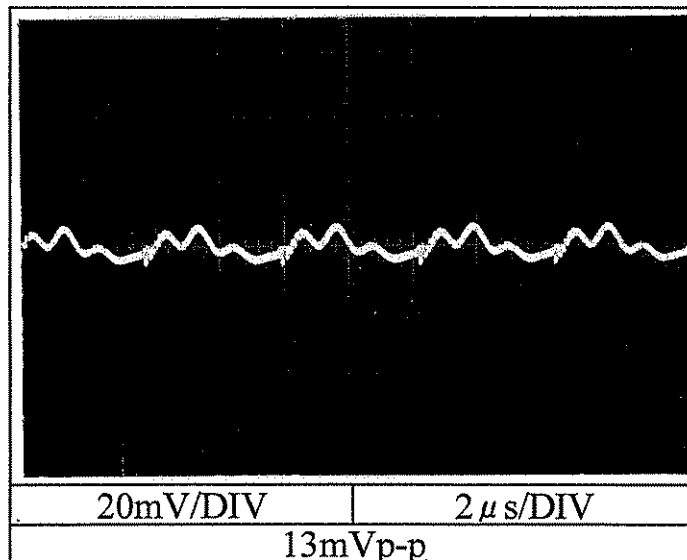
PSD6-12-1212

Conditions  $V_{in}$  : 12 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

12V (CH1)



-12V (CH2)

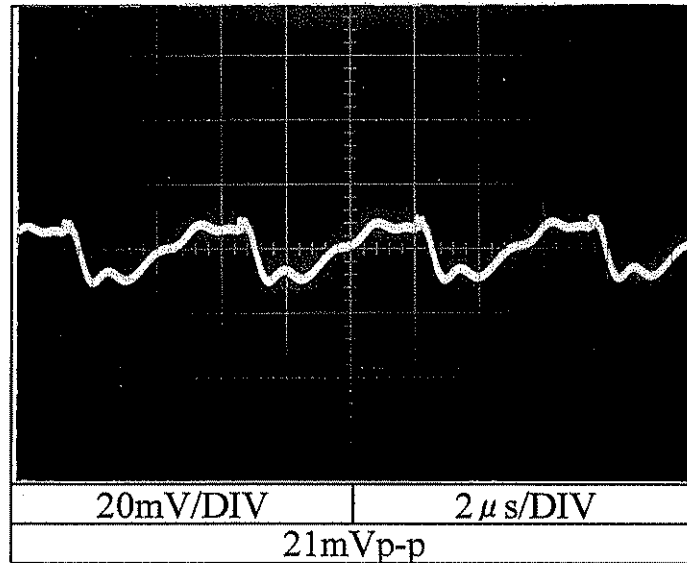


2.10 出力リップル、ノイズ波形  
Output ripple and noise waveform

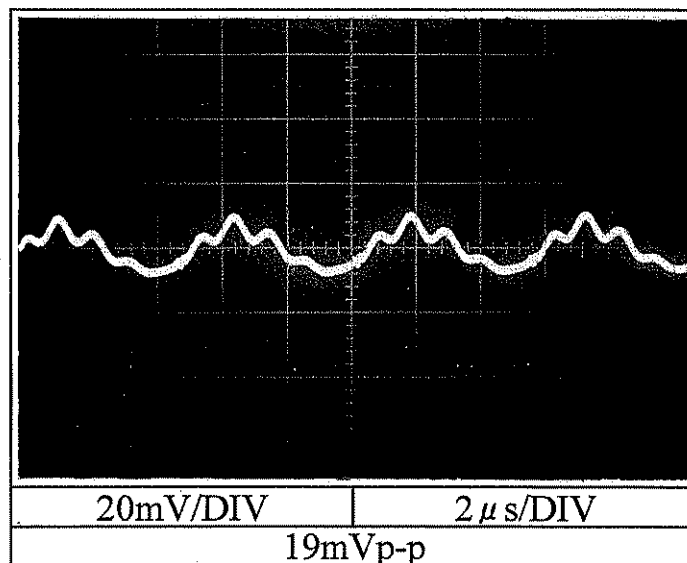
PSD6-24-1212

Conditions  $V_{in}$  : 24 VDC  
 $I_{out}$  : 100 %  
 $T_a$  : 25 °C

12V (CH1)



-12V (CH2)

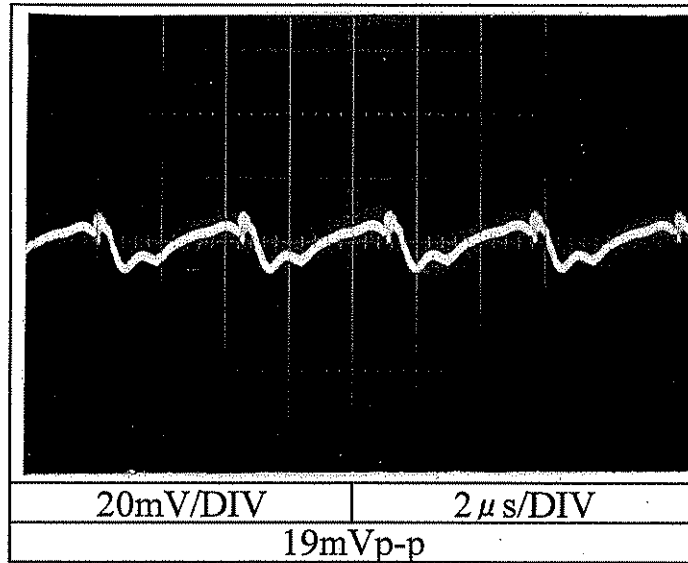


2.10 出力リップル、ノイズ波形  
Output ripple and noise waveform

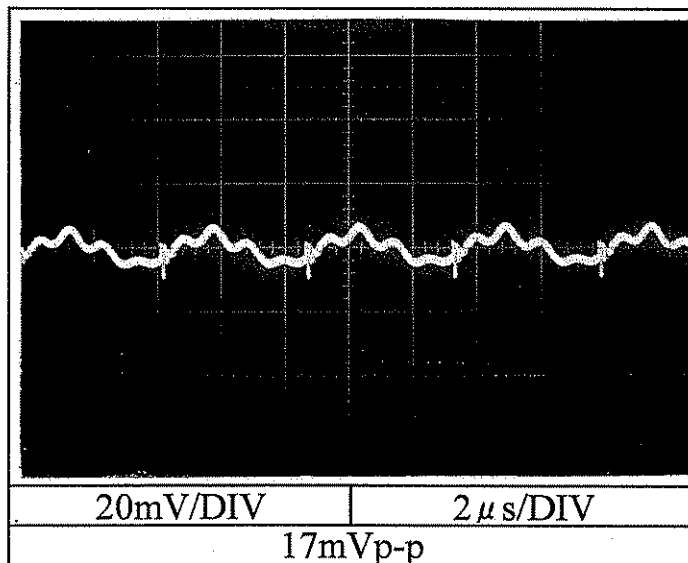
PSD6-48-1212

Conditions Vin : 48 VDC  
Iout : 100 %  
Ta : 25 °C

12V (CH1)



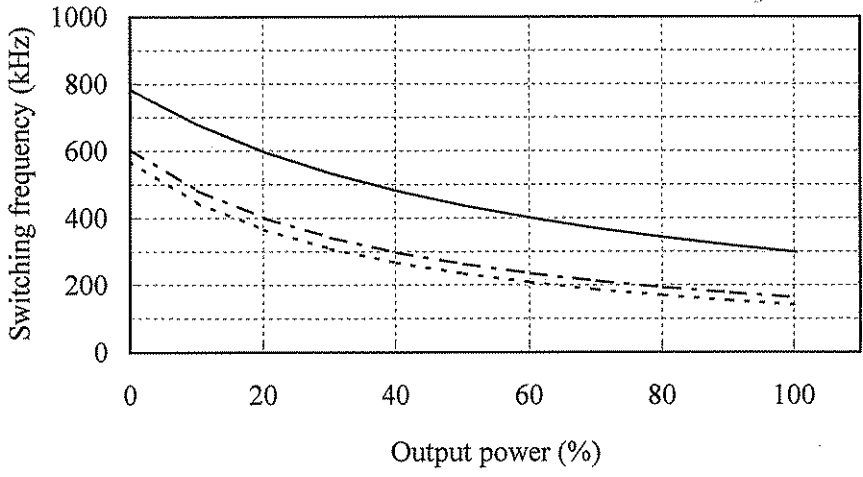
-12V (CH2)



2.11 スイッチング周波数対出力電力  
Switching frequency v.s. output power

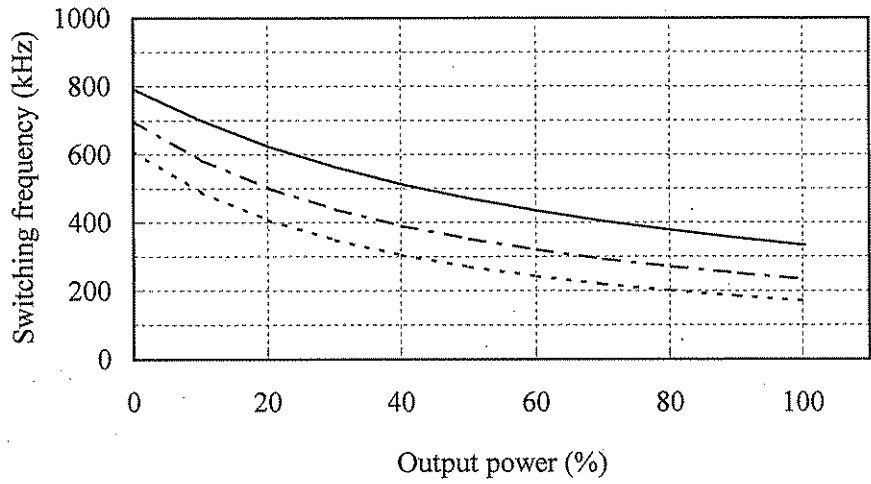
Conditions Vin : 4.5 VDC -----  
 5 VDC -----  
 9 VDC -----  
 Ta : 25 °C

PSD6-5-1212



Conditions Vin : 9 VDC -----  
 12 VDC -----  
 18 VDC -----  
 Ta : 25 °C

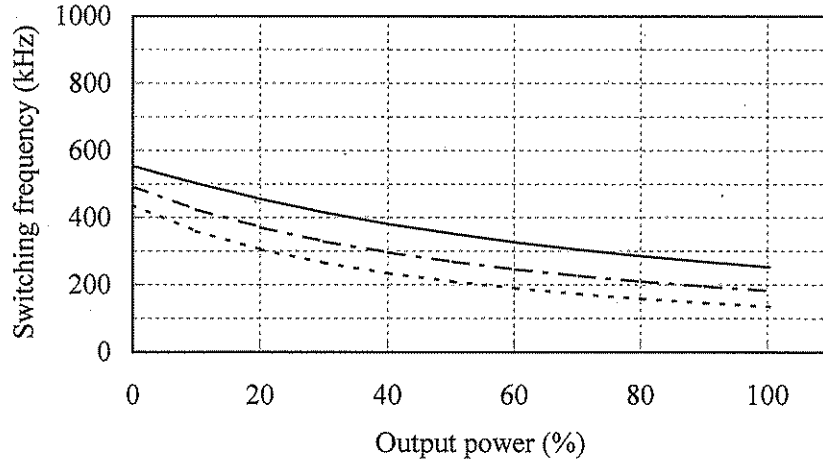
PSD6-12-1212



2.11 スイッチング周波数対出力電力  
Switching frequency v.s. output power

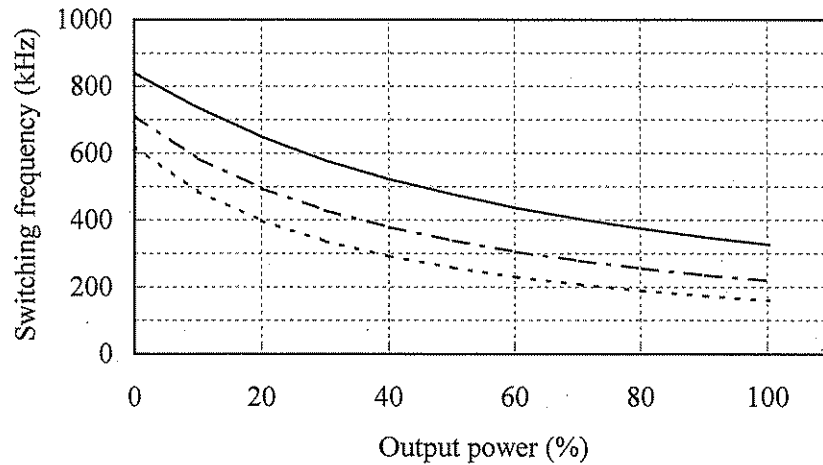
Conditions Vin : 18 VDC -----  
 24 VDC -----  
 36 VDC -----  
 Ta : 25 °C

PSD6-24-1212



Conditions Vin : 36 VDC -----  
 48 VDC -----  
 76 VDC -----  
 Ta : 25 °C

PSD6-48-1212



2.12 EMI特性

Electro-Magnetic Interference characteristics

(a) 雑音端子電圧 (帰還ノイズ)

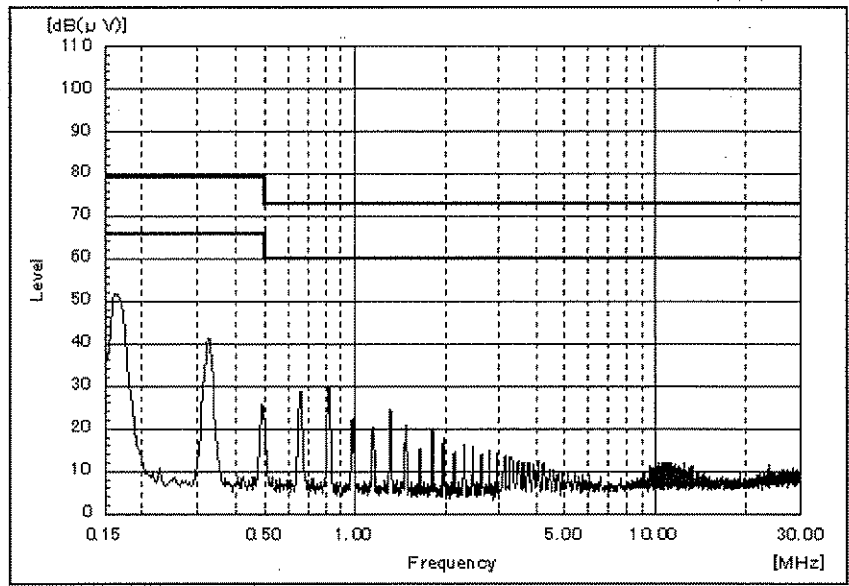
Conducted Emission

VCCI class A 対応アプリケーションシステム

VCCI class A application system

Conditions Vin : 5 VDC  
Iout : 100 %  
Ta : 25 °C

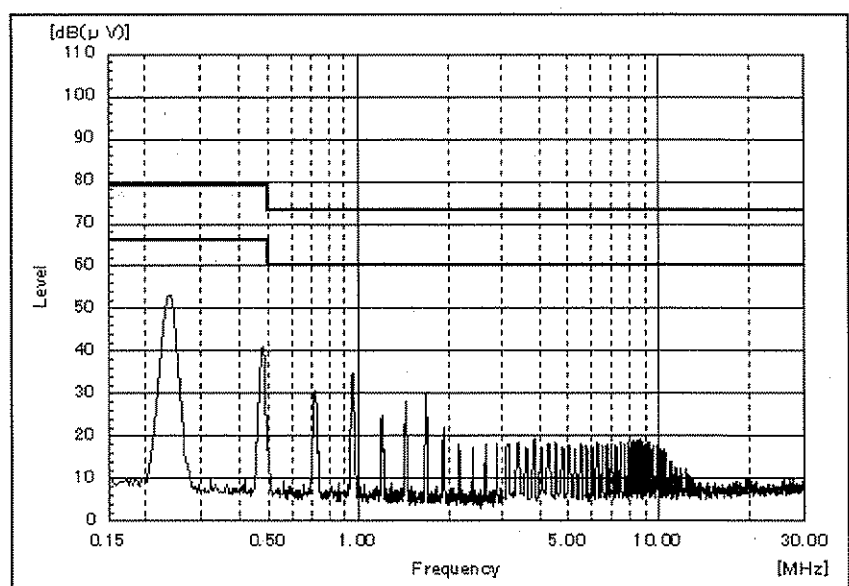
PSD6-5-1212



←QP Limit  
←AV Limit

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

PSD6-12-1212



←QP Limit  
←AV Limit

2.12 EMI特性

Electro-Magnetic Interference characteristics

(a) 雑音端子電圧 (帰還ノイズ)

Conducted Emission

VCCI class A 対応アプリケーションシステム

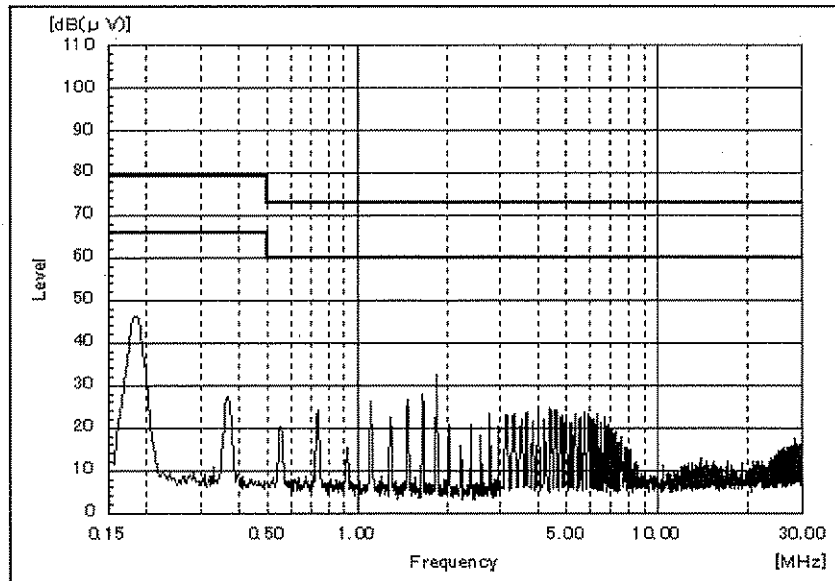
VCCI class A application system

Conditions Vin : 24 VDC

Iout : 100 %

Ta : 25 °C

PSD6-24-1212



←QP Limit

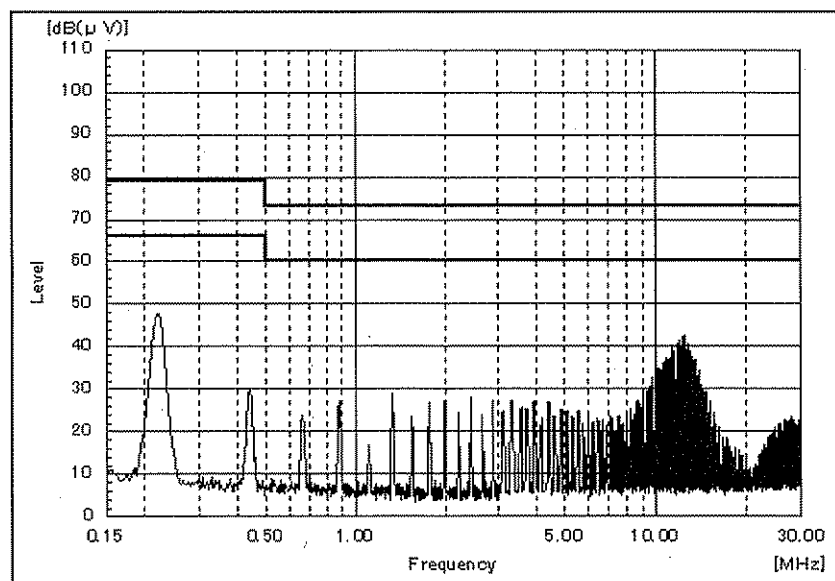
←AV Limit

Conditions Vin : 48 VDC

Iout : 100 %

Ta : 25 °C

PSD6-48-1212



←QP Limit

←AV Limit

2.12 EMI特性

Electro-Magnetic Interference characteristics

(b) 雑音電界強度 (輻射ノイズ)

Radiated Emission

VCCI class A 対応アプリケーションシステム

VCCI class A application system

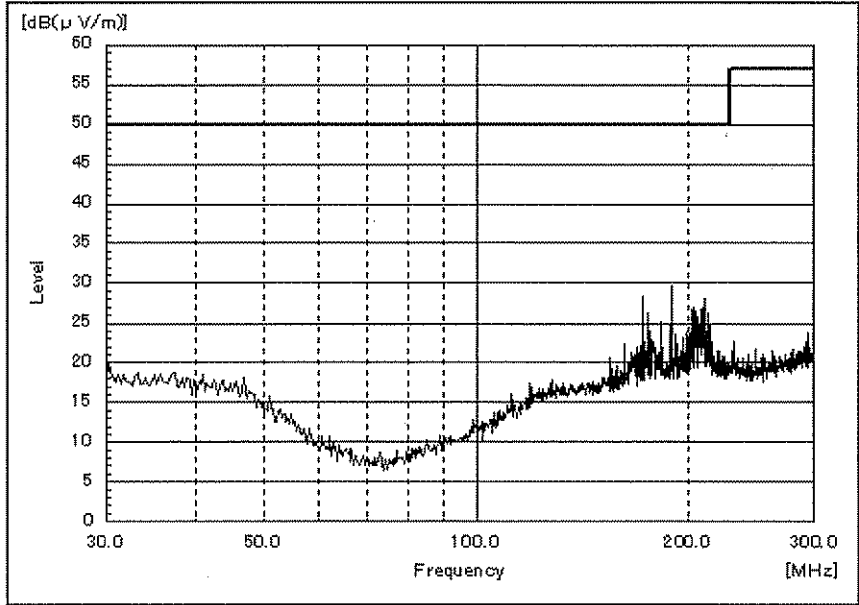
Conditions Vin : 5 VDC

Iout : 100 %

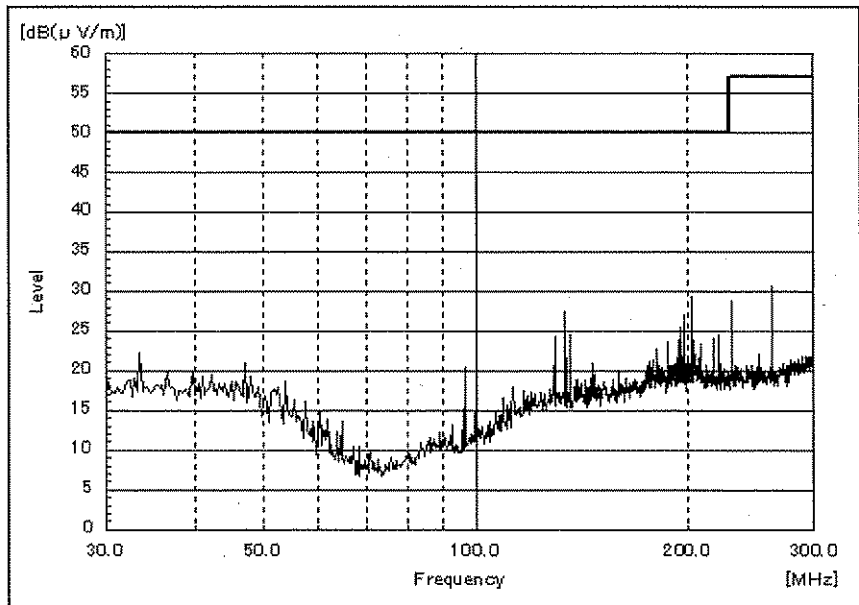
Ta : 25 °C

PSD6-5-1212

HORIZONTAL:



VERTICAL:





2.12 EMI特性

Electro-Magnetic Interference characteristics

(b) 雑音電界強度 (輻射ノイズ)

Radiated Emission

VCCI class A 対応アプリケーションシステム

VCCI class A application system

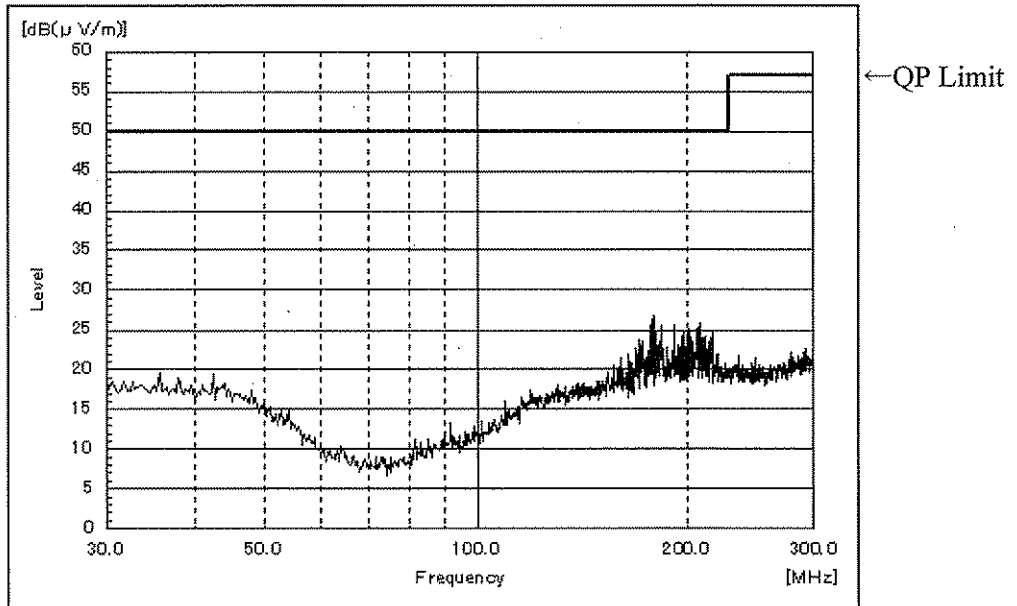
Conditions Vin : 12 VDC

Iout : 100 %

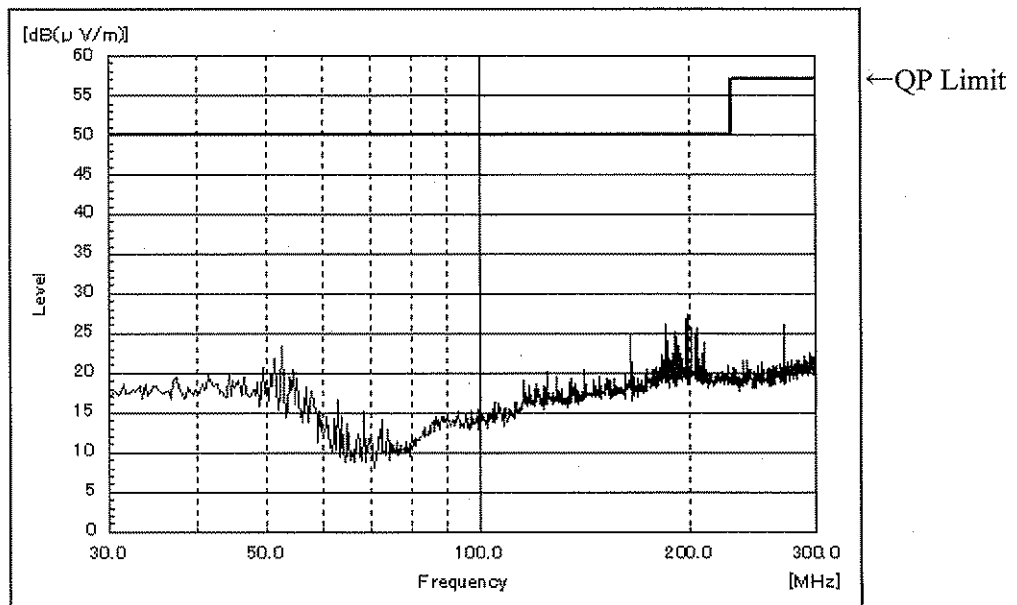
Ta : 25 °C

PSD6-12-1212

HORIZONTAL:



VERTICAL:



2.12 EMI特性

Electro-Magnetic Interference characteristics

(b) 雑音電界強度 (輻射ノイズ)

Radiated Emission

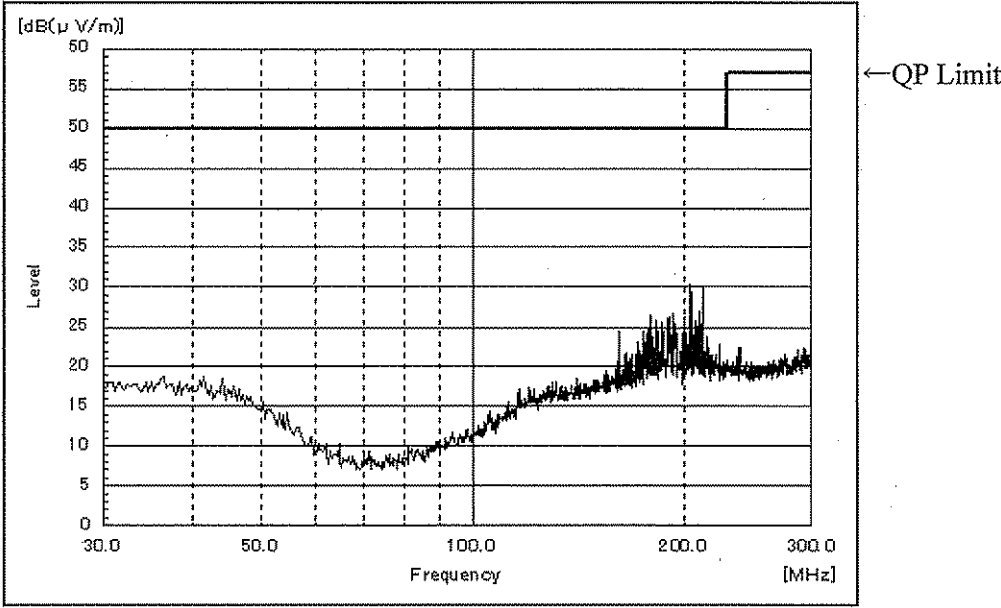
VCCI class A 対応アプリケーションシステム

VCCI class A application system

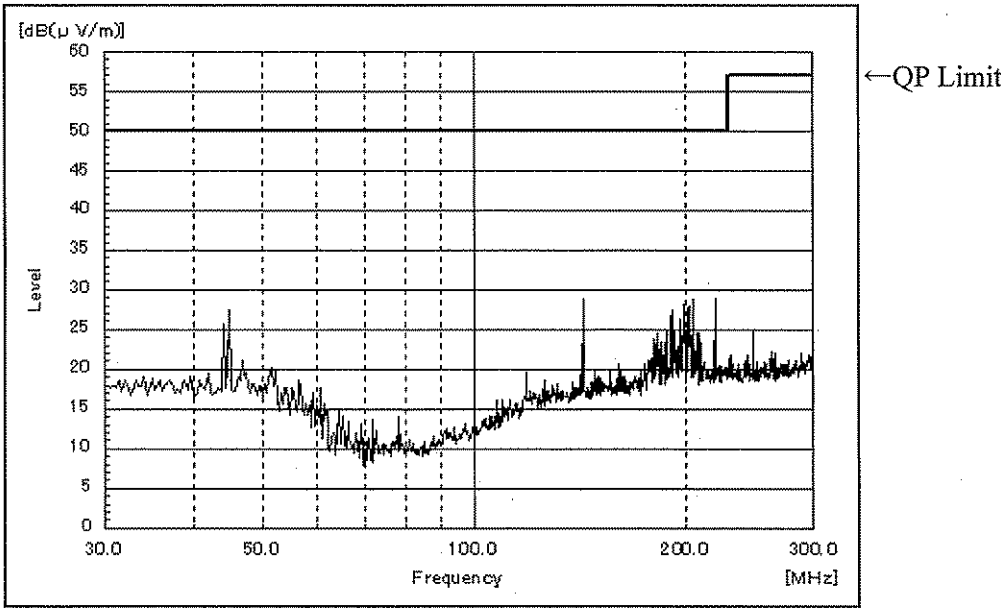
Conditions Vin : 24 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-24-1212

HORIZONTAL:



VERTICAL:



2.12 EMI特性

Electro-Magnetic Interference characteristics

(b) 雑音電界強度 (輻射ノイズ)

Radiated Emission

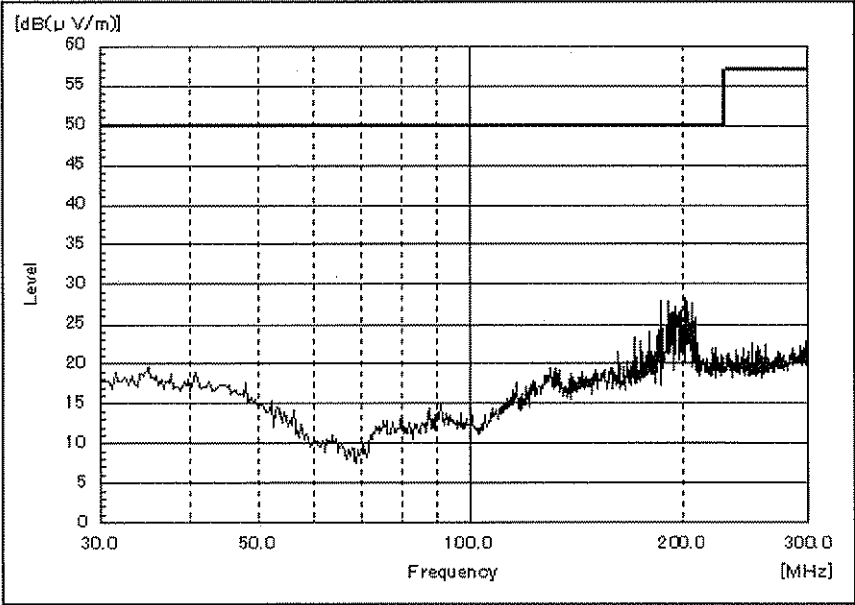
VCCI class A 対応アプリケーションシステム

VCCI class A application system

Conditions Vin : 48 VDC  
Iout : 100 %  
Ta : 25 °C

PSD6-48-1212

HORIZONTAL:



VERTICAL:

