

CHVM2R5-12-0350NW

EVALUATION DATA

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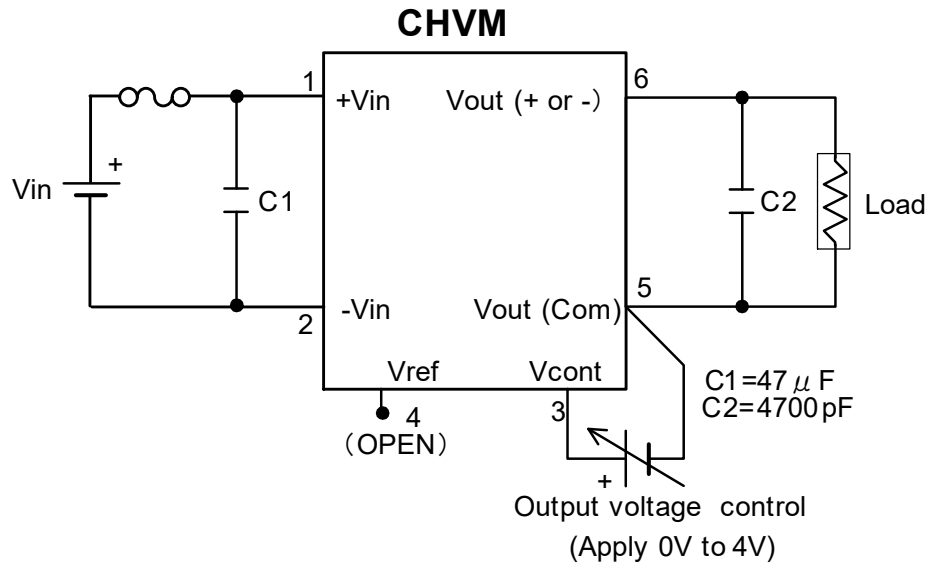
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Definition

V_{in}	···Input voltage
V_{out}	···Output voltage
I_{out}	···Output current
V_{cont}	···Output voltage control
T_a	···Ambient temperature

Test results are reference data based on our measurement condition.

1. Test circuit



2. Steady State Characteristics

Condition Ta : -20°C

Test Item			Load : Open			Load : 12kΩ		
	Input Voltage	V _{cont}	Input Current	Output Voltage	Ripple/ Noise	Input Current	Output Voltage	Ripple/ Noise
	[V]	[V]	[mA]	[V]	[mV _{p-p}]	[mA]	[V]	[mV _{p-p}]
	10.8	4.0	64	348.81	35	315	348.43	40
		3.0	54	261.97	30	247	261.72	40
		2.0	43	173.99	25	172	173.81	30
		1.0	33	86.96	20	98	86.87	30
	12.0	4.0	66	348.80	35	315	348.43	40
		3.0	55	261.96	30	248	261.71	40
		2.0	44	173.98	25	173	173.81	30
		1.0	34	86.96	20	99	86.87	30
	13.2	4.0	67	348.80	35	315	348.44	40
		3.0	56	261.95	30	250	261.70	40
		2.0	46	173.98	25	174	173.81	30
		1.0	36	86.95	20	100	86.87	30

	Spec	Data
Line reg.	-	10mV
Load reg.	-	370mV
Ripple/Noise	-	40mV _{p-p}

*Ta=-20°C is out of specification range.

Note : Line reg. and Load reg. were measured individually.

2. Steady State Characteristics

Condition Ta : 25°C

Test Item			Load : Open			Load : 12kΩ		
	Input Voltage	Vcont	Input Current	Output Voltage	Ripple/ Noise	Input Current	Output Voltage	Ripple/ Noise
	[V]	[V]	[mA]	[V]	[mV p-p]	[mA]	[V]	[mV p-p]
	10.8	4.0	61	349.82	15	320	349.52	25
		3.0	52	262.81	10	245	262.57	18
		2.0	41	175.03	5	170	174.88	10
		1.0	32	87.27	5	97	87.16	5
	12.0	4.0	62	349.84	15	320	349.54	25
		3.0	52	262.81	10	246	262.58	18
		2.0	42	175.05	5	172	174.89	10
		1.0	33	87.26	5	98	87.17	5
	13.2	4.0	63	349.87	15	320	349.56	25
		3.0	53	262.82	10	247	262.58	18
	2.0	43	175.05	5	173	174.90	10	
	1.0	35	87.25	5	99	87.17	5	

	Spec	Data
Line reg.	70mV typ	40mV
Load reg.	700mV typ	300mV
Ripple/Noise	100mV p-p max	25mV p-p

Note : Line reg. and Load reg. were measured individually.

2. Steady State Characteristics

Condition Ta : 65°C

Test Item			Load : Open			Load : 12kΩ		
	Input Voltage	Vcont	Input Current	Output Voltage	Ripple/ Noise	Input Current	Output Voltage	Ripple/ Noise
	[V]	[V]	[mA]	[V]	[mV p-p]	[mA]	[V]	[mV p-p]
	10.8	4.0	71	350.78	40	320	350.52	50
		3.0	58	263.18	40	247	262.96	40
		2.0	46	175.51	35	172	175.37	35
		1.0	36	87.73	30	97	87.50	30
	12.0	4.0	72	350.78	40	320	350.50	50
		3.0	59	263.17	40	248	262.95	40
		2.0	47	175.51	35	173	175.37	35
		1.0	37	87.75	30	98	87.53	30
	13.2	4.0	73	350.78	40	325	350.49	50
		3.0	60	263.15	40	249	262.92	40
		2.0	48	175.50	35	174	175.36	35
		1.0	38	87.74	30	100	87.58	30

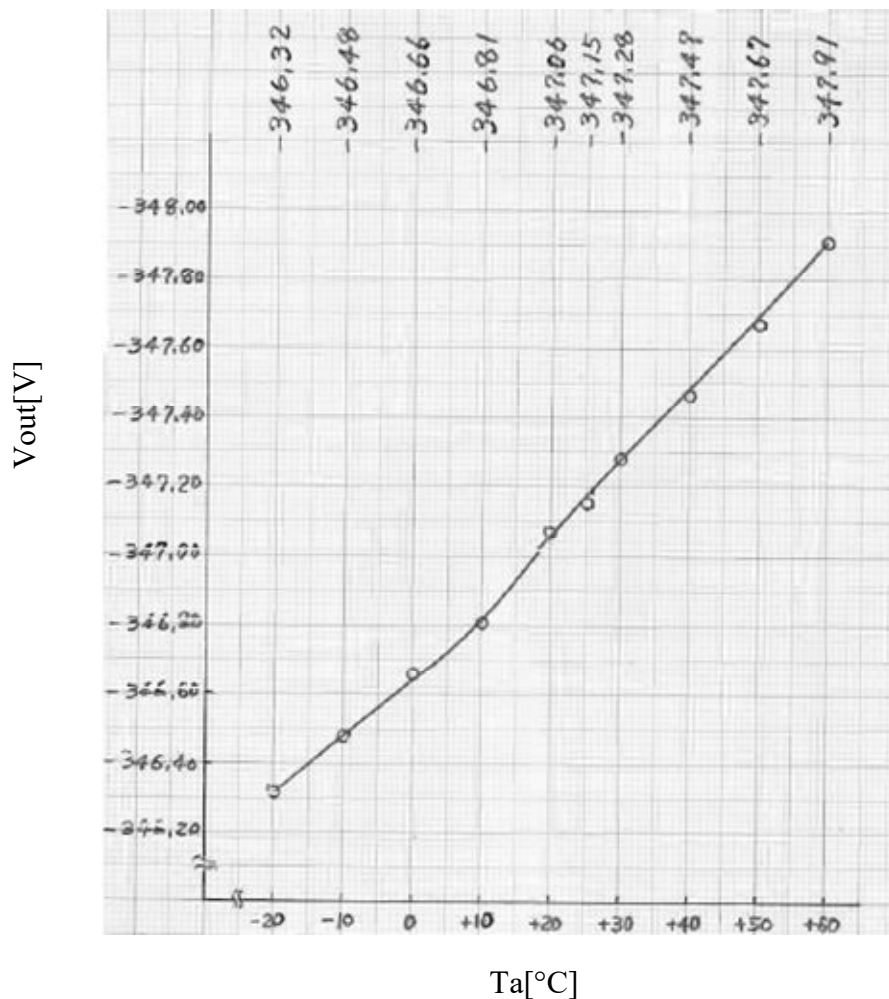
	Spec	Data
Line reg.	-	30mV
Load reg.	-	280mV
Ripple/Noise	-	50mV p-p

*Ta=65°C is out of specification range.

Note : Line reg. and Load reg. were measured individually.

3. Temperature Regulation

Conditions
 Vin : 12V
 Load : 50kΩ
 Vcont : 4V

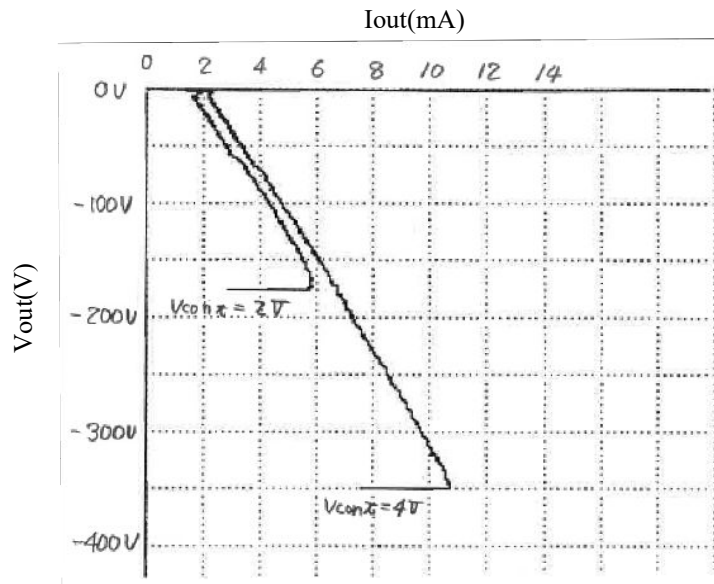


Ta [°C]	Vout [V]
-20	-346.32
-10	-346.48
0	-346.66
10	-346.81
20	-347.06
30	-347.28
40	-347.47
50	-347.67
60	-347.91

*Ta=-20°C is out of specification range.

4. Over Current Characteristics

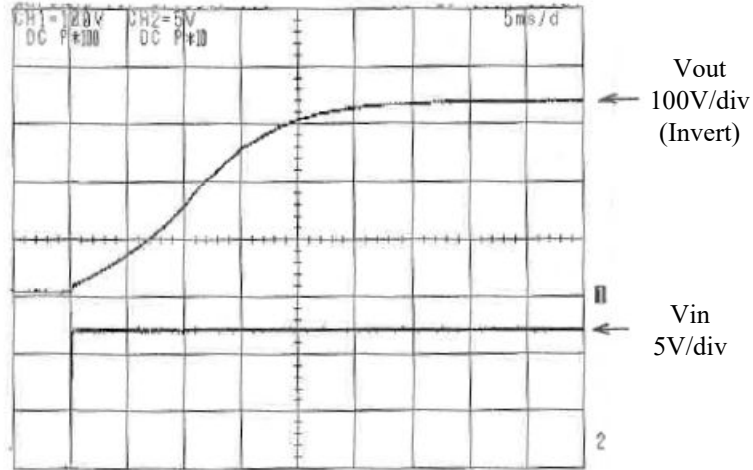
Conditions Ta : 25°C
 Vin : 12V
 Vout : -175V , -350V



5. Output Rise Time Characteristics

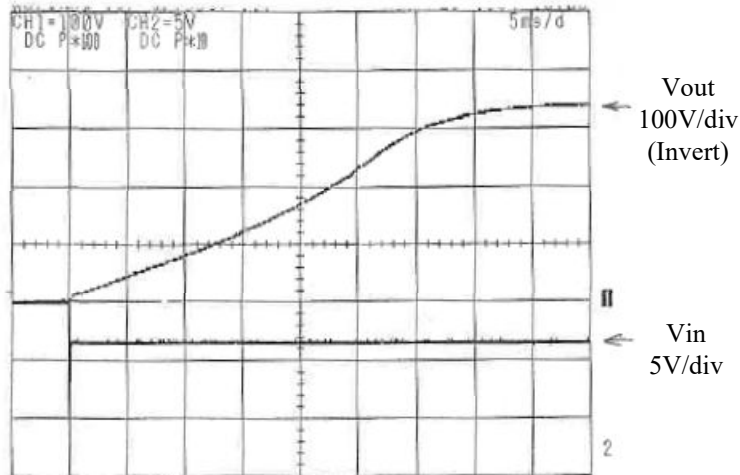
Conditions	Ta	: 25°C
	Vin	: 12V
	Vout	: -350V
	Vcont	: 4V

(1) Load condition : 0.0mA



Time : 5ms/div

(2) Load condition : 7mA

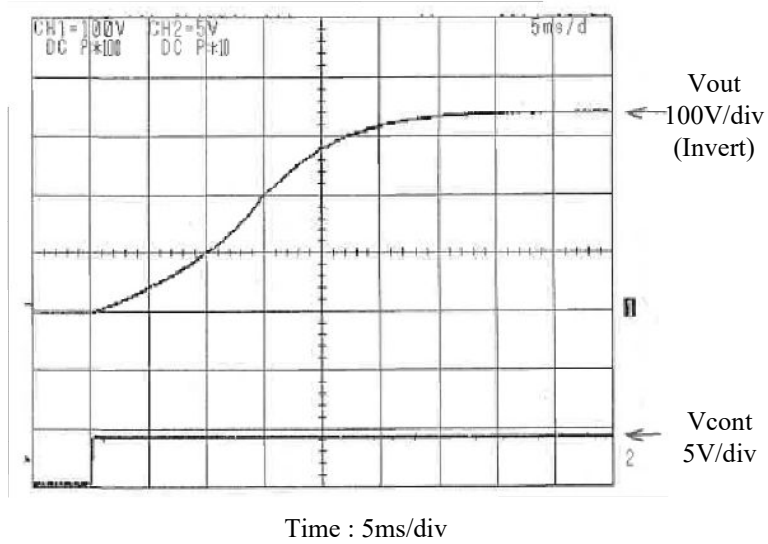


Time : 5ms/div

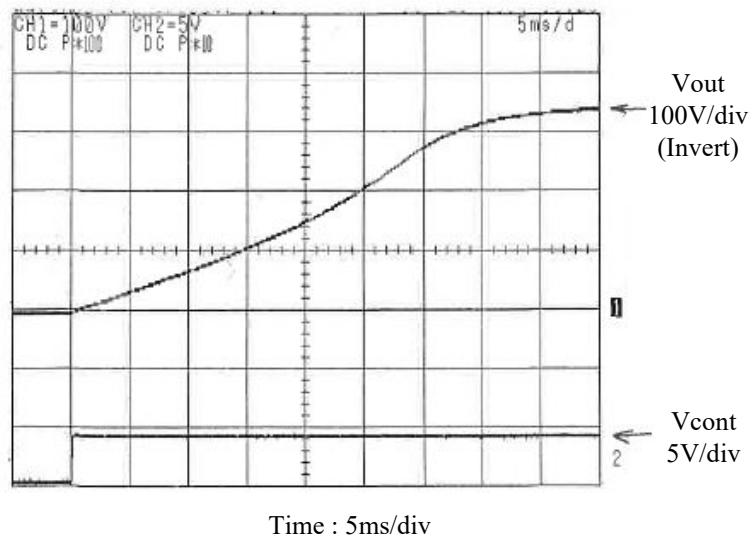
5. Output Rise Time Characteristics (with Vcont)

Conditions	Ta	: 25°C
	Vin	: 12V
	Vout	: -350V
	Vcont	: 4V

(1) Load condition : 0.0mA



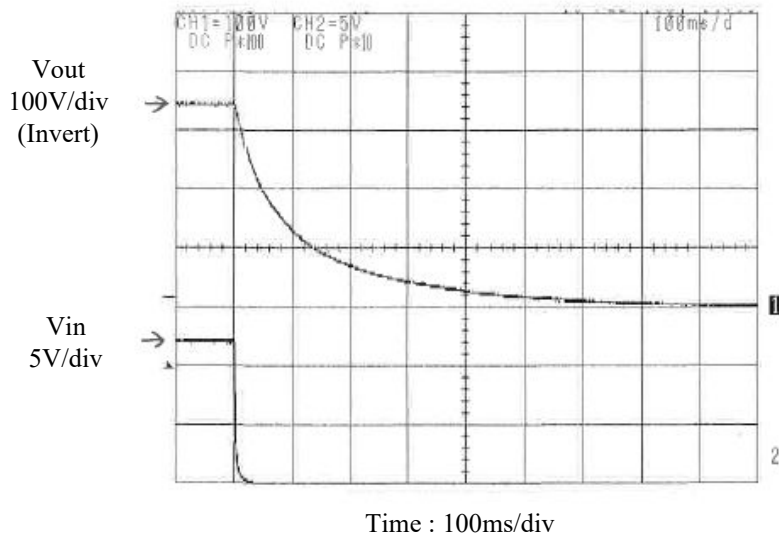
(2) Load condition : 7mA



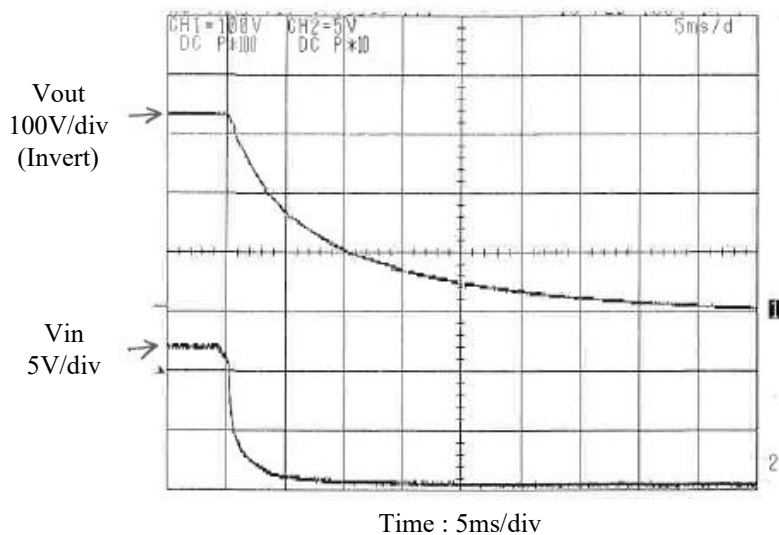
6. Output Fall Time Characteristics

Conditions	Ta	: 25°C
	Vin	: 12V
	Vout	: -350V
	Vcont	: 4V

(1) Load condition : 0.0mA



(2) Load condition : 7mA



7. Dynamic Load Regulation

Conditions

Ta : 25°C
Vin : 12V
Vout : -350V
Vcont : 4V

(1) Load : open => 50kΩ => open

Condition : Load input & Load disconnection

