

CHVM3-12-0300NW

EVALUATION DATA

INDEX

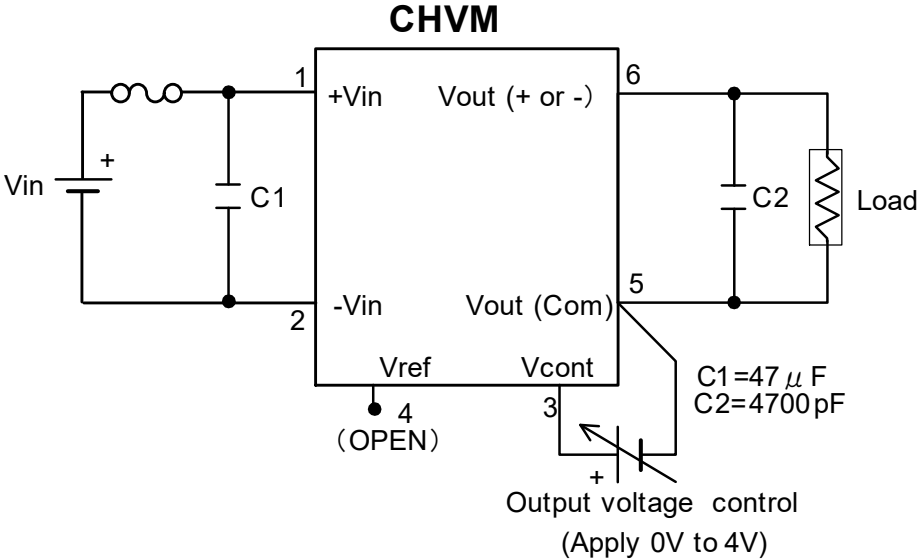
1. Test circuit·····P3
2. Steady State Characteristics·····P4,P5,P6
3. Temperature Regulation·····P7
4. Over Current Characteristics·····P8
5. Output Rise Time Characteristics·····P9,P10
6. Output Fall Time Characteristics·····P11
7. Dynamic Load Regulation·····P12

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	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	58	297.87	30	390	297.27	40
		3.0	49	223.52	30	295	223.14	40
		2.0	40	149.39	25	203	149.14	30
		1.0	32	74.41	20	113	74.29	20
	12.0	4.0	59	297.87	30	390	297.28	40
		3.0	50	223.53	30	295	223.13	40
		2.0	42	149.39	25	204	149.14	30
		1.0	33	74.41	20	115	74.28	20
	13.2	4.0	61	297.86	30	390	297.28	40
		3.0	52	223.53	30	297	223.13	40
		2.0	43	149.40	25	206	149.13	40
		1.0	34	74.41	20	116	74.28	20

	Spec	Data
Line reg.	-	10mV
Load reg.	-	590mV
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	58	298.33	10	385	297.80	25
		3.0	49	223.80	10	293	223.48	18
		2.0	40	149.10	5	202	148.85	10
		1.0	32	74.32	5	112	74.20	5
	12.0	4.0	58	298.34	10	385	297.83	25
		3.0	51	223.80	10	293	223.41	18
		2.0	42	149.10	5	203	148.87	10
		1.0	34	74.32	5	113	74.20	5
	13.2	4.0	60	298.35	10	385	297.88	25
		3.0	52	223.81	10	294	223.47	18
	2.0	42	149.11	5	204	148.88	10	
	1.0	35	74.32	5	114	74.20	5	

	Spec	Data
Line reg.	60mV typ	80mV
Load reg.	600mV typ	510mV
Ripple/Noise	100mV p-p	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	67	299.65	30	390	299.18	50
		3.0	56	224.71	30	295	224.36	40
		2.0	46	149.73	25	203	149.50	30
		1.0	36	74.82	20	113	74.68	25
	12.0	4.0	68	299.64	30	390	299.16	50
		3.0	57	224.68	30	296	224.36	40
		2.0	47	149.74	25	204	149.50	30
		1.0	37	74.81	20	114	74.68	25
	13.2	4.0	70	299.65	30	390	299.17	50
		3.0	58	224.68	30	297	224.34	40
		2.0	48	149.74	25	205	149.50	30
		1.0	38	74.81	20	115	74.68	25

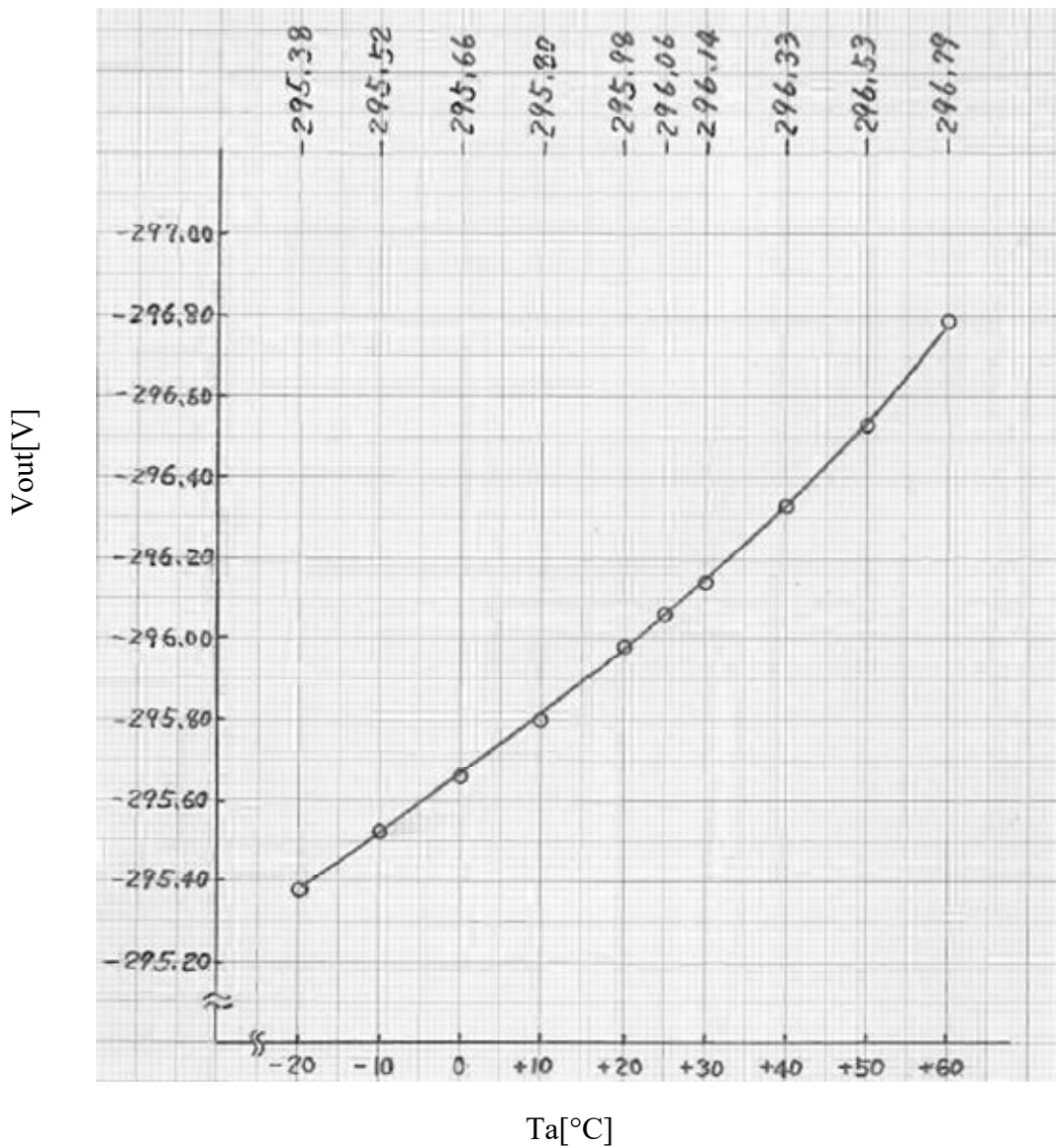
	Spec	Data
Line reg.	-	20mV
Load reg.	-	480mV
Ripple/Noise	-	50mV p-p

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

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

3. Temperature Regulation

Conditions Vin : 12V
 Load : 30kΩ
 Vcont : 4V

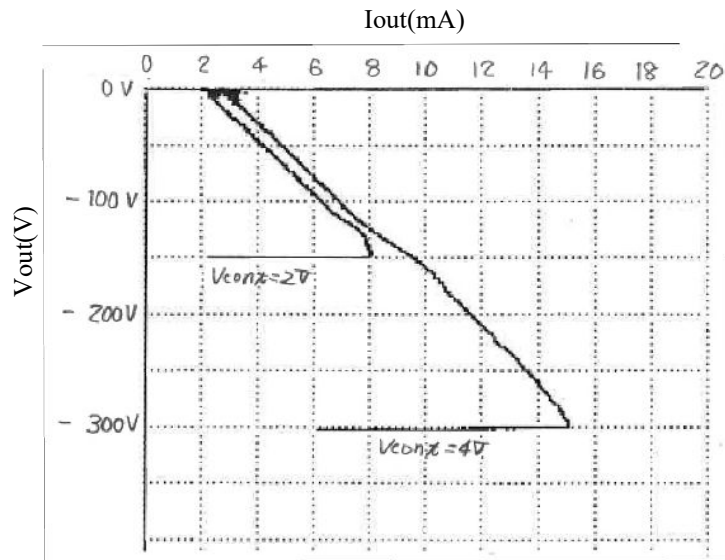


Ta [°C]	Vout [V]
-20	-295.38
-10	-295.52
0	-295.66
10	-295.80
20	-295.98
30	-296.14
40	-296.33
50	-296.53
60	-296.79

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

4. Over Current Characteristics

Conditions Ta : 25°C
 Vin : 12V
 Vout : -150V , -300V

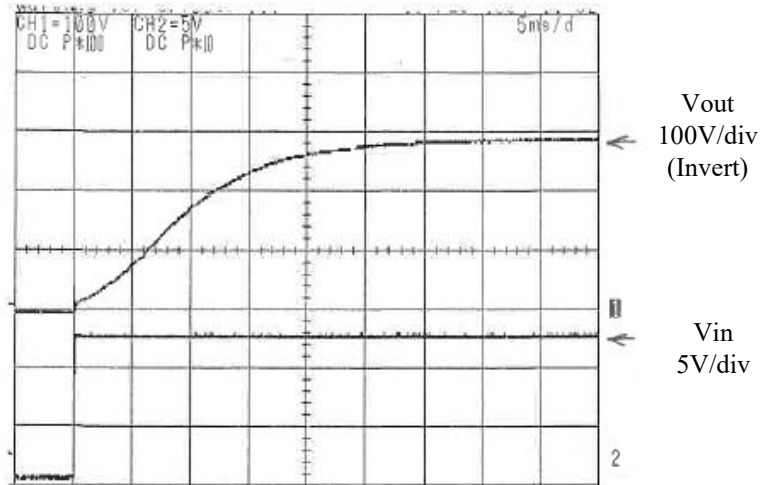


5. Output Rise Time Characteristics

Conditions

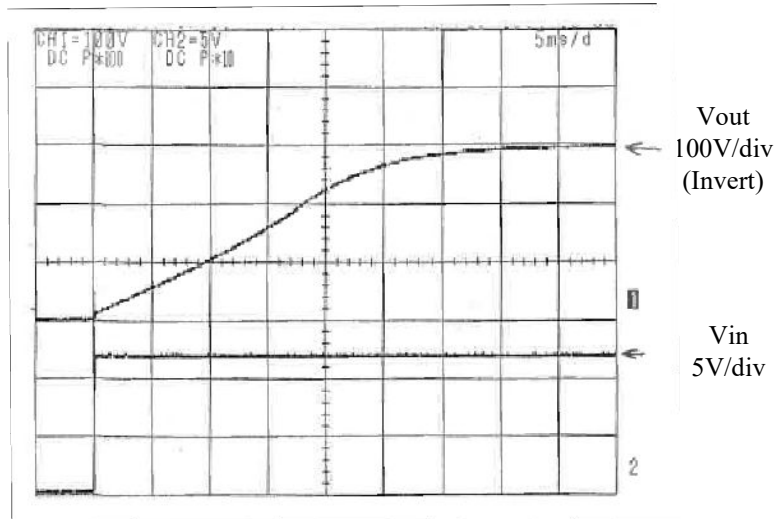
Ta : 25°C
 Vin : 12V
 Vout : -300V
 Vcont : 4V

(1) Load condition : 0.0mA



Time : 5ms/div

(2) Load condition : 10mA

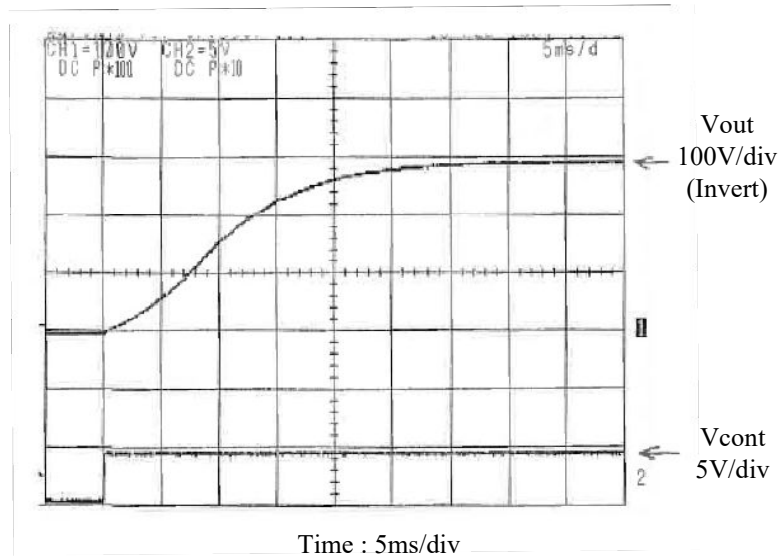


Time : 5ms/div

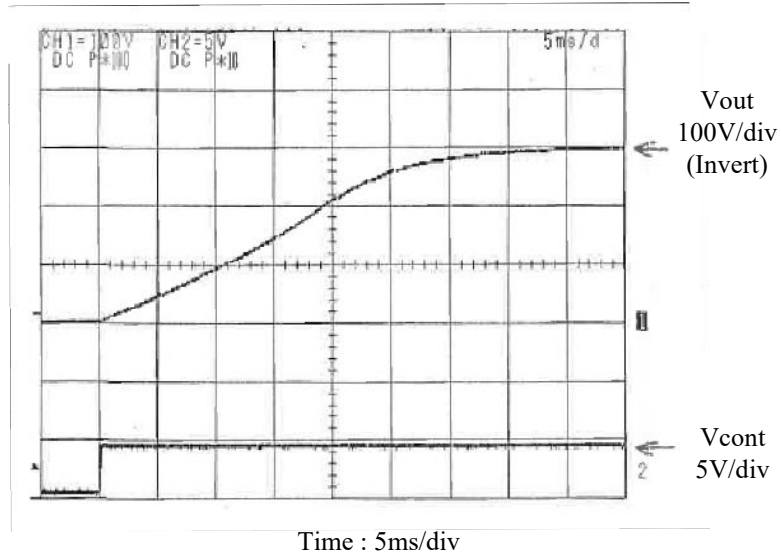
5. Output Rise Time Characteristics (with Vcont)

Conditions	Ta	: 25°C
	Vin	: 12V
	Vout	: -300V
	Vcont	: 4V

(1) Load condition : 0.0mA



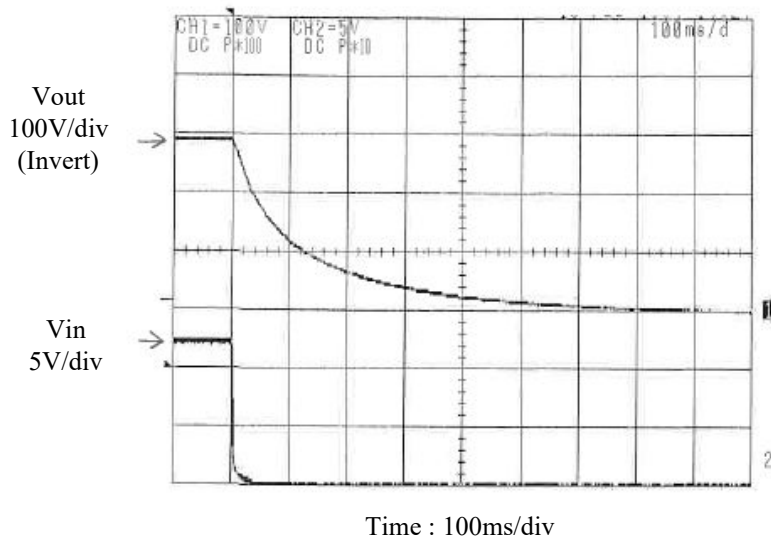
(2) Load condition : 10mA



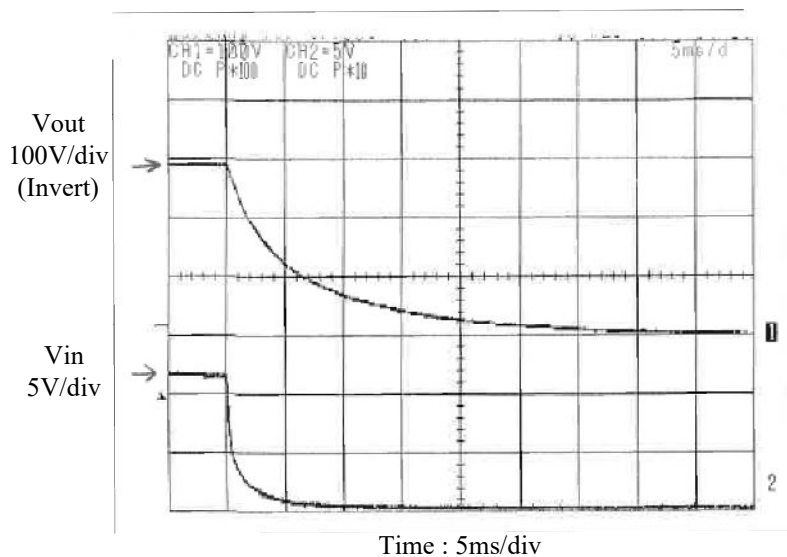
6. Output Fall Time Characteristics

Conditions	Ta	: 25°C
	Vin	: 12V
	Vout	: -300V
	Vcont	: 4V

(1) Load condition : 0.0mA



(2) Load condition : 10mA



7. Dynamic Load Regulation

Conditions

Ta : 25°C
Vin : 12V
Vout : -300V
Vcont : 4V

- (1) Load : open => 30kΩ => open
Condition : Load input & Load disconnection

