
Material name :

Evaluation data

Customer's product name :

TDK product name : DC-DC converter
 CC1R5-2412SF-E , CC1R5-2412SR-E

TDK-Lambda

TDK Corporation
Power Systems Business Group

DWG.No.	TRSC-1512-2
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Revised 2006/12/01

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* The measurement has been done without external output capacitor.

(Product specification)

Product name	Input voltage(V)	Output voltage(V)	Output current(mA)	The maximum output power(W)	Ambient temperature(°C)
CC1R5-2412SF-E	18~36	12 ±3%	0~125	1.5	-40 ~ +85 *2
CC1R5-2412SR-E		15 ±3% *1	0~100		

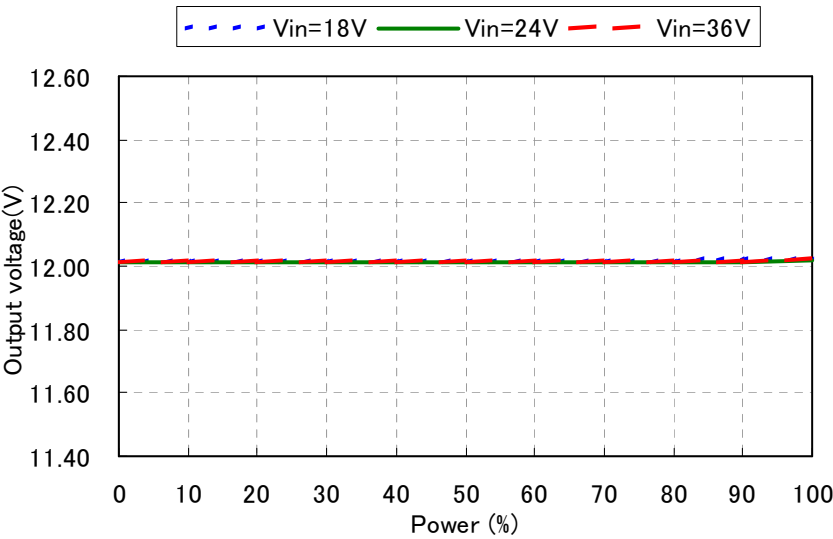
*1 TRM and -Vout are short-circuited.

*2 At 50°C or more, output power derating is necessary.

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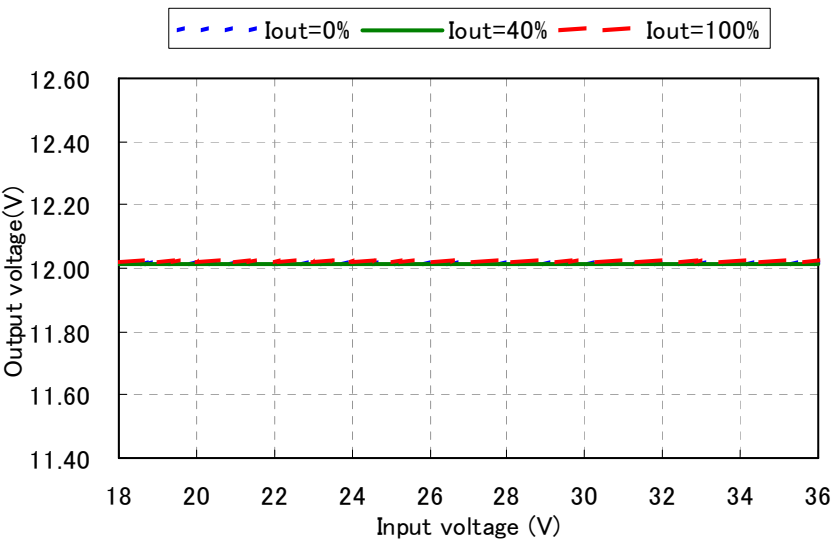
1. Load regulation

Condition Ta : 25℃



2. Line regulation

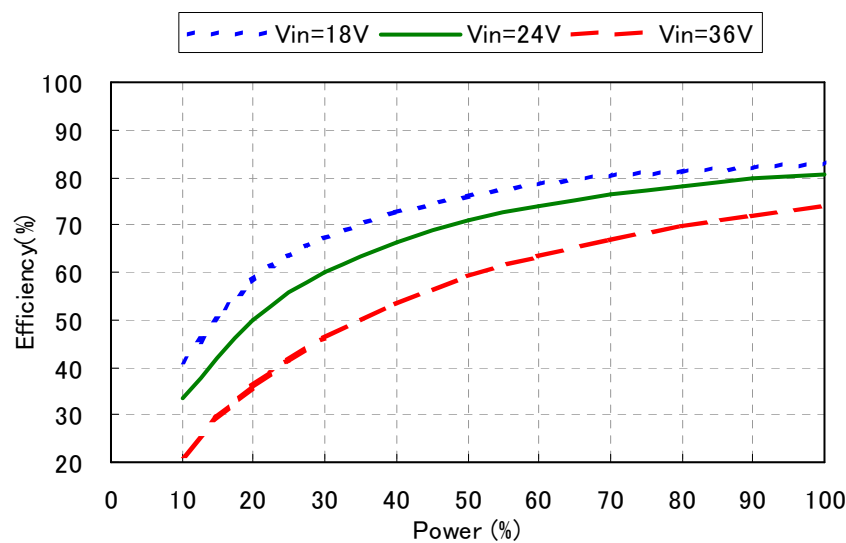
Condition Ta : 25℃



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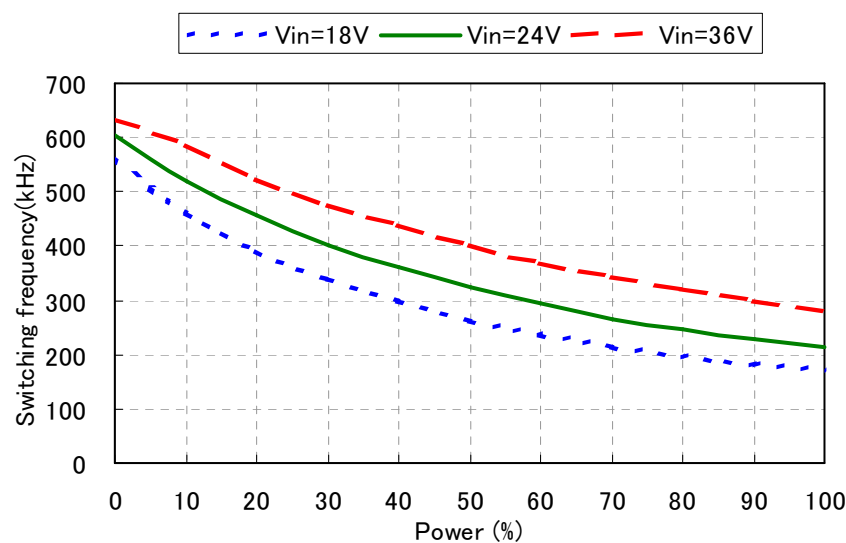
3. Efficiency

Condition Ta : 25℃



4. Switching frequency vs. output power

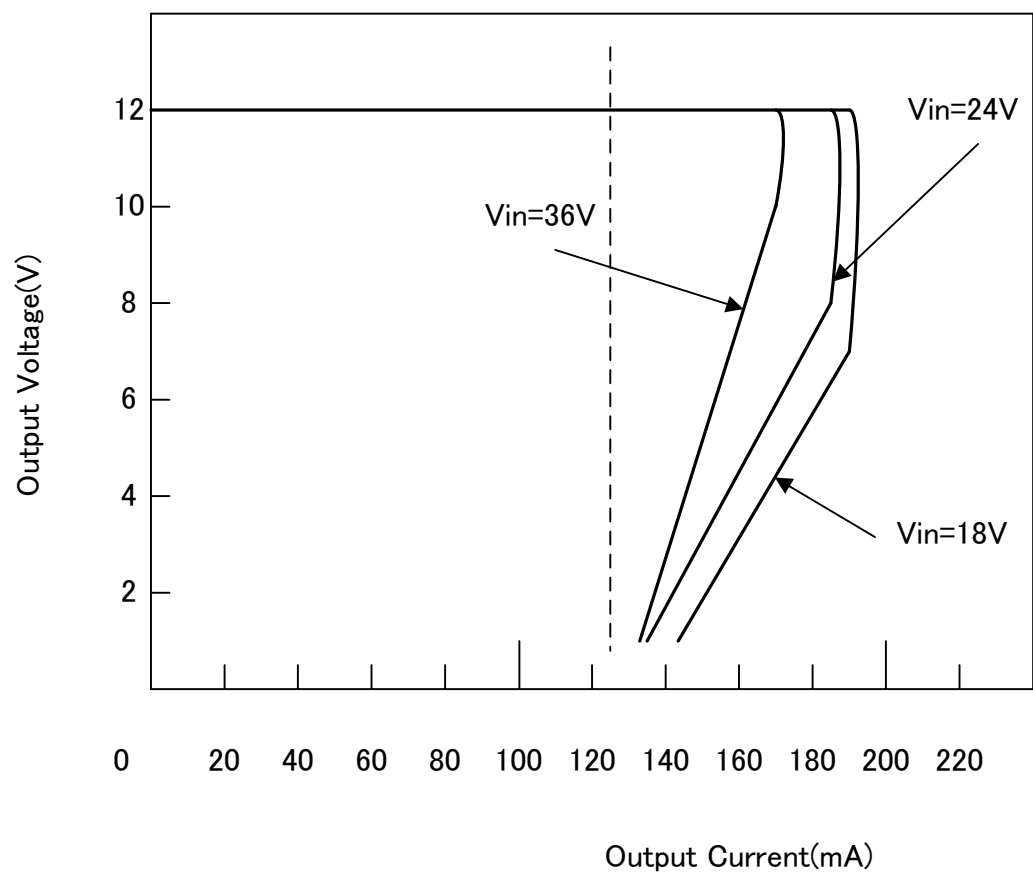
Condition Ta : 25℃



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5. Over current protection characteristics

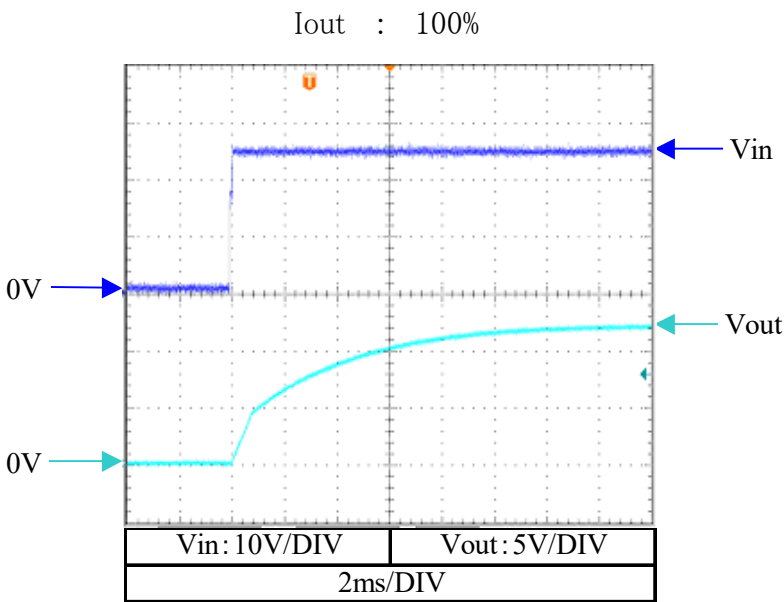
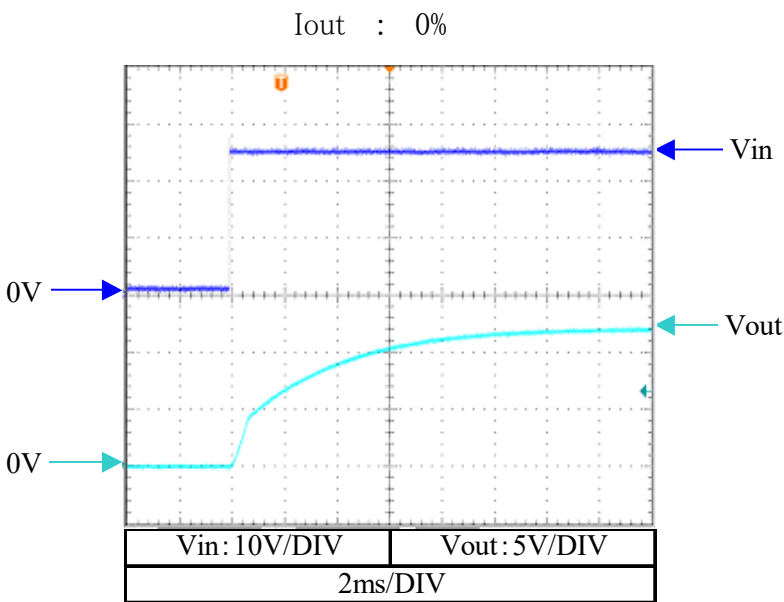
Condition Ta : 25℃



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6. Output rise characteristics

Condition Vin : 24V
 Ta : 25℃

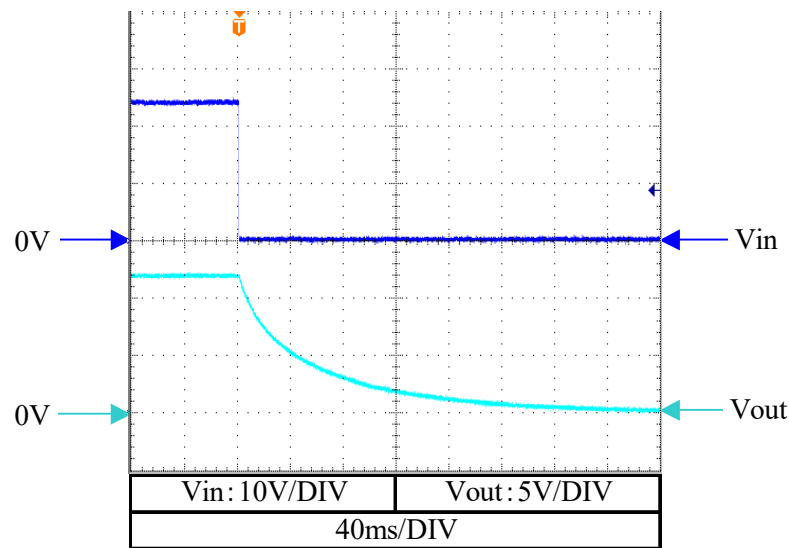


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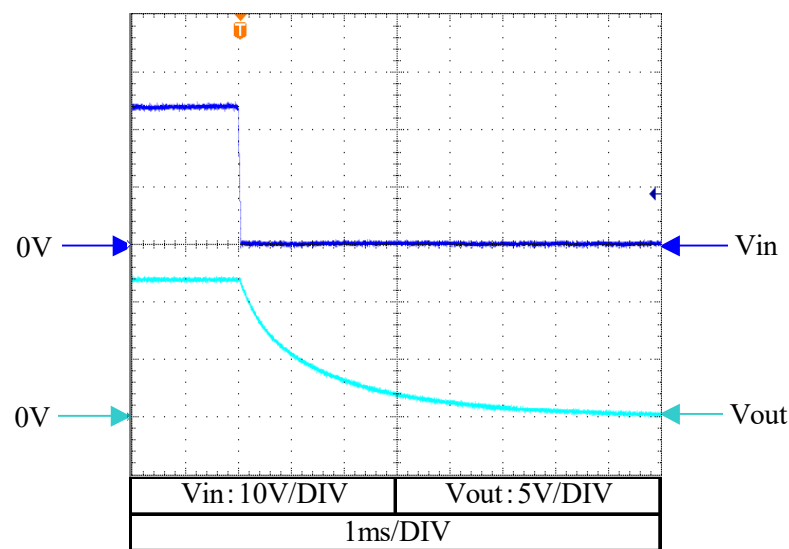
7. Output fall characteristics

Condition Vin : 24V
Ta : 25℃

Iout : 0%



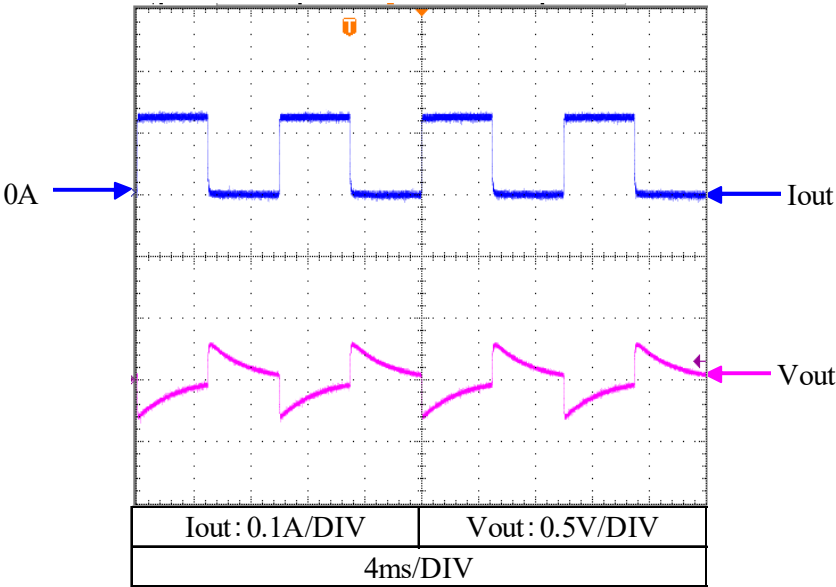
Iout : 100%



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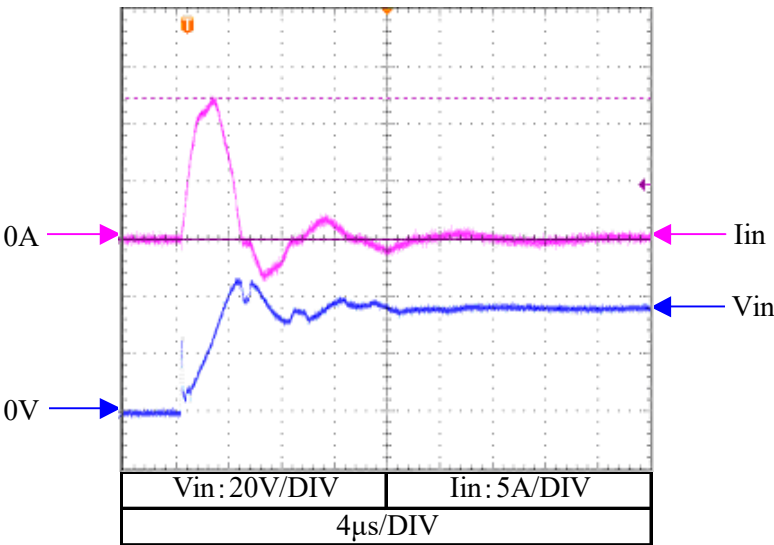
8. Dynamic load response characteristics

Condition Vin : 24V
Vout : 12V
Iout : 0% ⇔ 100%
Tr=Tf : 100 μs
f : 100Hz
Ta : 25℃



9. Inrush current waveform

Condition Vin : 36V
Iout : 100%
Ta : 25℃

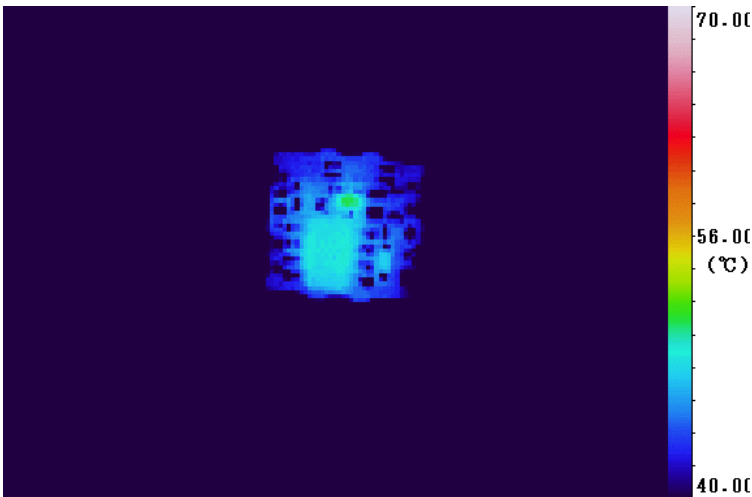


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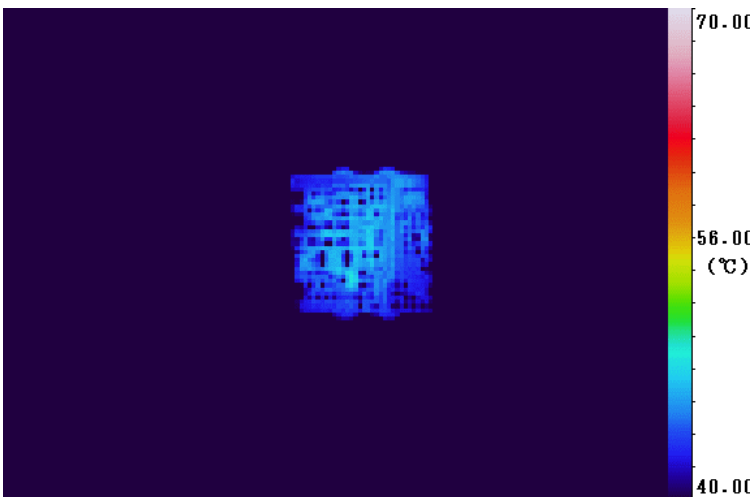
10. Temperature distribution

Condition Vin : 24V
 Vout : 12V
 Iout : 100%
 Ta : 25℃
Wind velocity : 0m/s

Top View



Bottom View



(*) •This test was done on our evaluation board. (Glass epoxy substrate, Size:100x100x1.6mm)
•We measured the temperatures of parts without the case by using the thermography.
Therefore, it might be different a little from the actual temperature.

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