| | |
|---|---|
| Material name : | Evaluation data |
| Customer's product name : | |
| TDK product name : | DC-DC converter<br>CC10-0512DF-E , CC10-0512DR-E |

# TDK·Lambda

**TDK Corporation**
**Power Systems Business Group**

| | |
|---|---|
| DWG.No. | TRSC-1557-2 |

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(℃) |
|---|---|---|---|---|---|
| CC10-0512DF-E<br>CC10-0512DR-E | 4.5～9 | ±12 ±5% | 0～400 | 9.6 | -40 ～ +85 *2 |
| | | ±15 ±5% *1 | 0～320 | | |

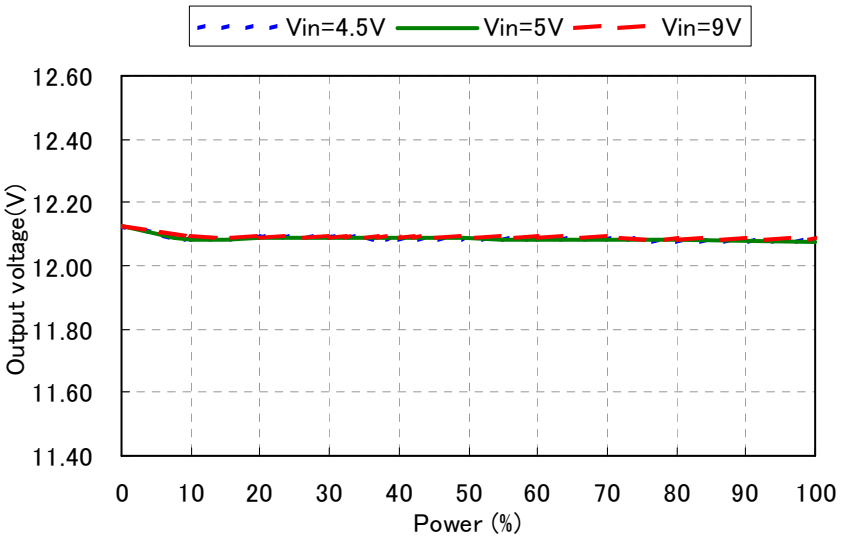
*1 TRM and -Vout are short-circuited.

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

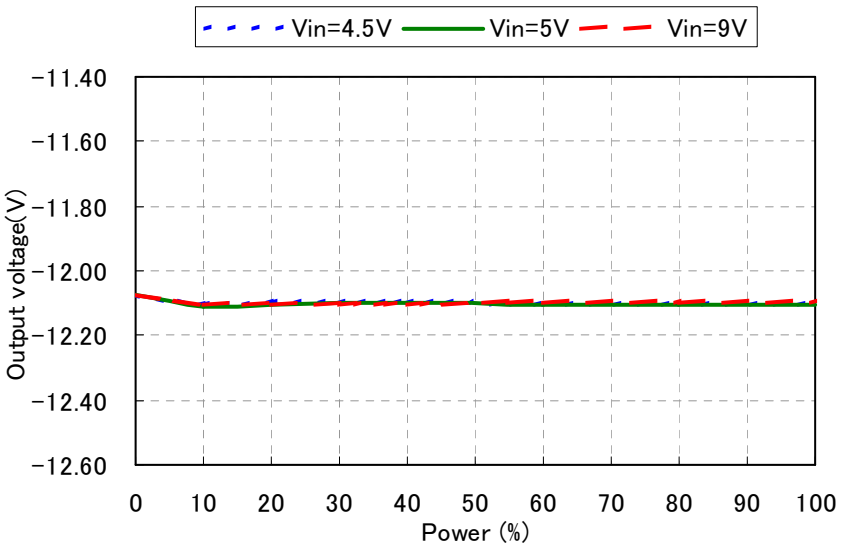
# 1. Load regulation

Condition Ta : 25℃

Vout=＋12V




Vout=－12V

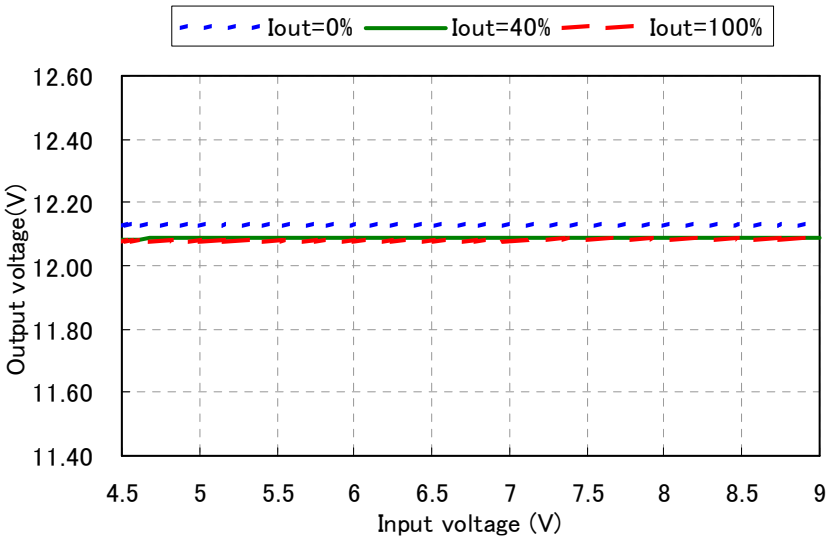



| | Product name or model, title | | |
|---|---|---|---|
| | DC-DC converter CC10-0512DF-E , CC10-0512DR-E | | |
| TDK CORPORATION | Name of drawing | Drawing No. | PAGE |
| | Evaluation data | TRSC-1557-2 | 2/ 9 |

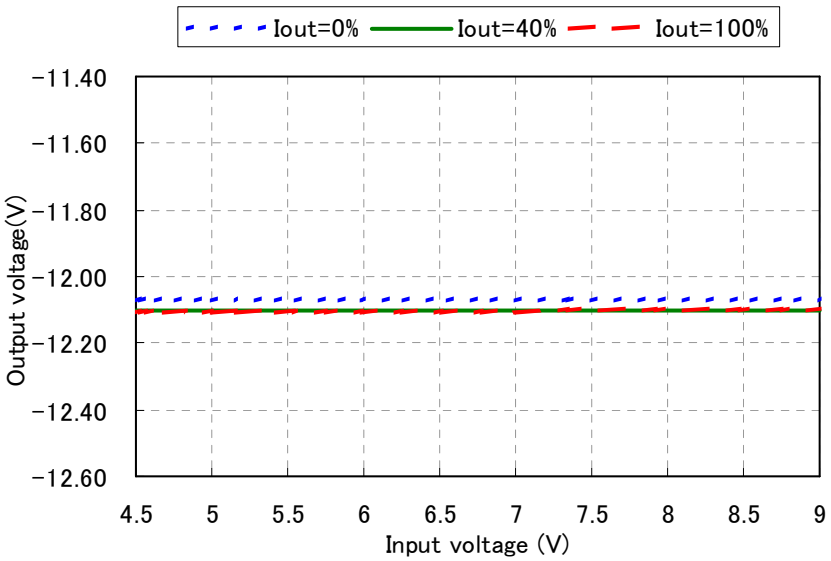
## 2. Line regulation

Condition Ta : 25℃

Vout=＋12V

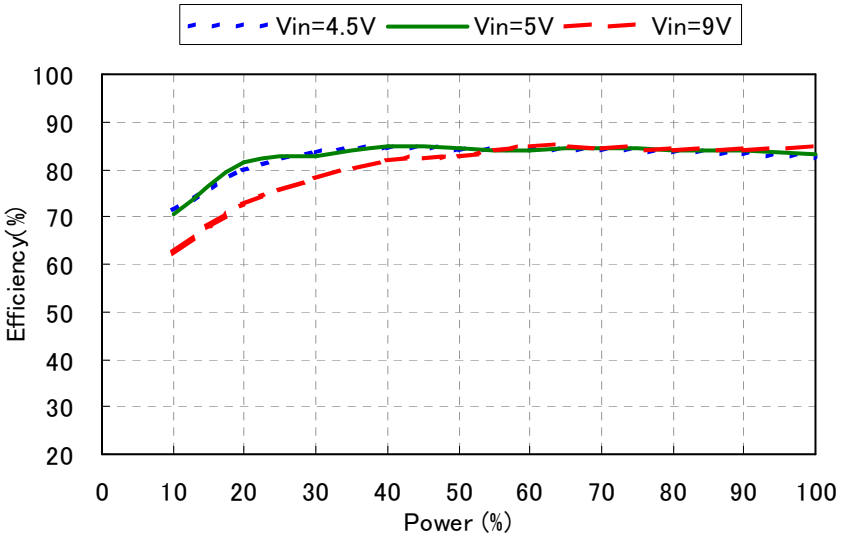



Vout=－12V



## 3. Efficiency

Condition　　Ta　：　25℃

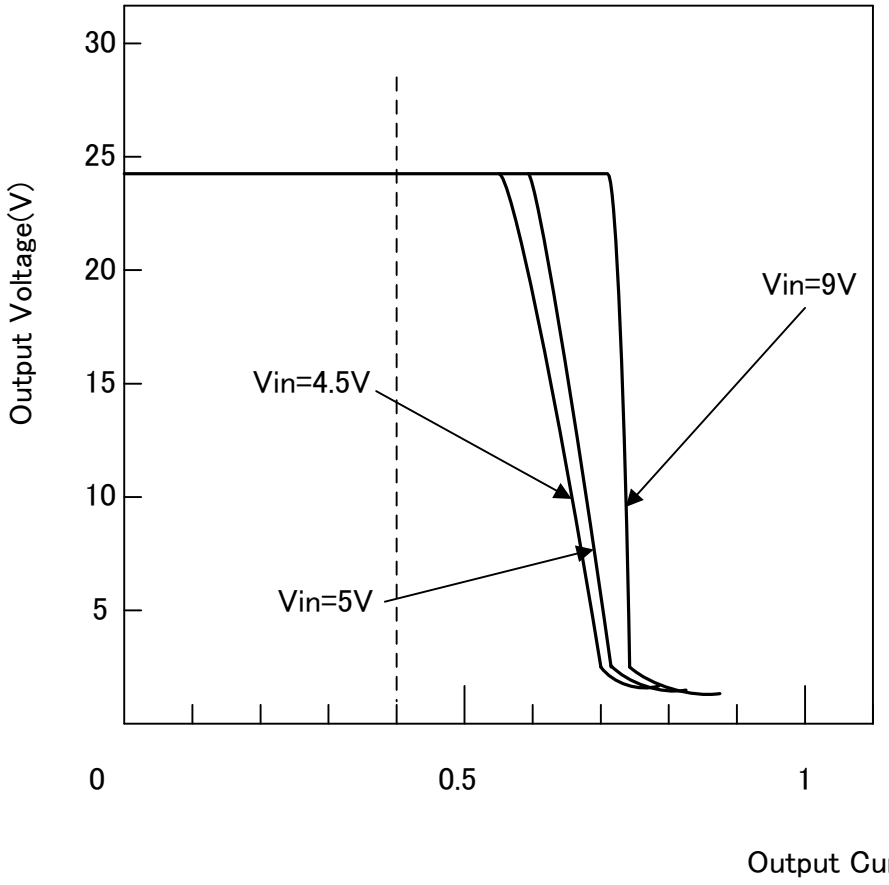



## 4. Switching frequency vs. output power

Swiching frequency　：　500kHz (Fix)

# 5. Over current protection characteristics

Condition Ta : 25℃

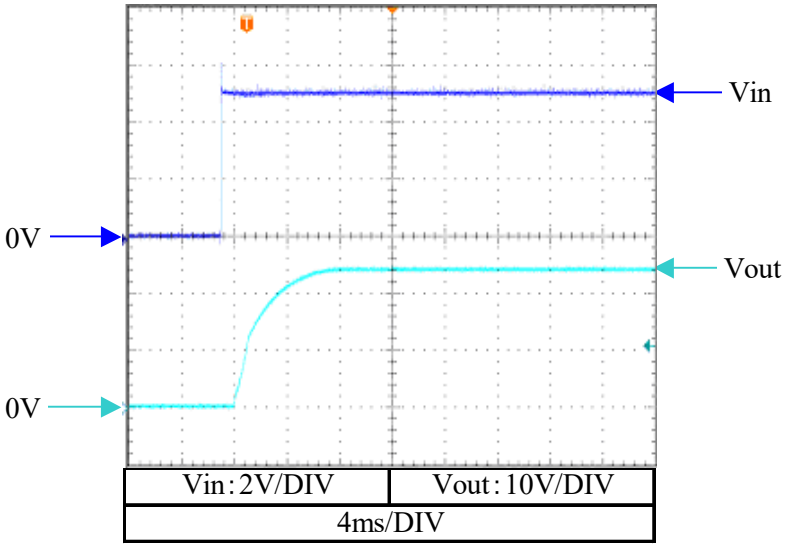



| | Product name or model, title | | |
|---|---|---|---|
| | DC-DC converter CC10-0512DF-E , CC10-0512DR-E | | |
| TDK CORPORATION | Name of drawing | Drawing No. | PAGE |
| | Evaluation data | TRSC-1557-2 | 5/ 9 |

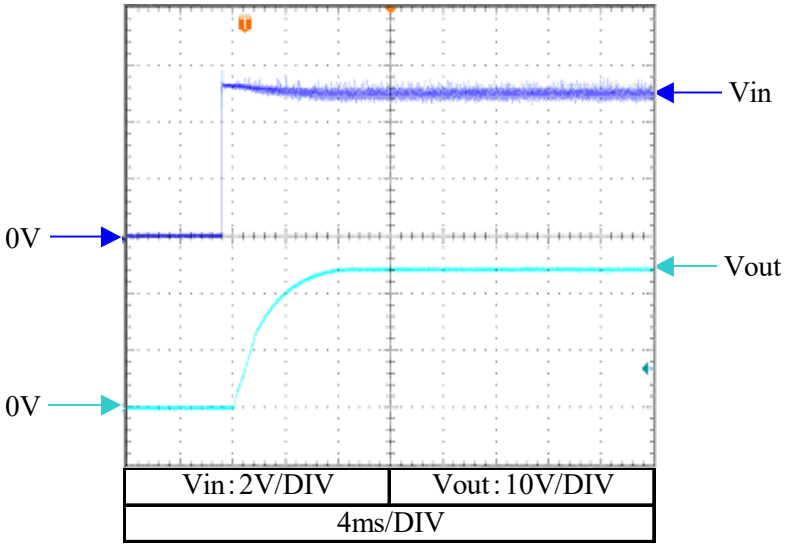
# 6. Output rise characteristics

Condition　　Vin　:　5V
Ta　:　25℃

Iout　:　0%



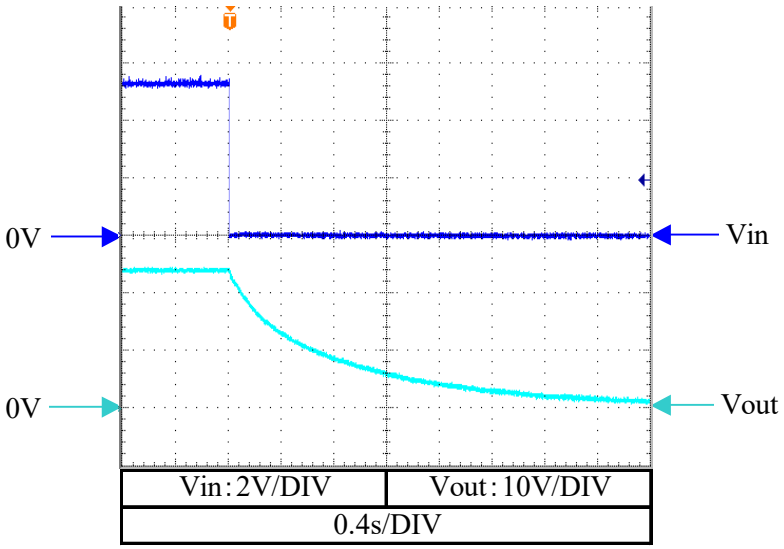

Iout　:　100%



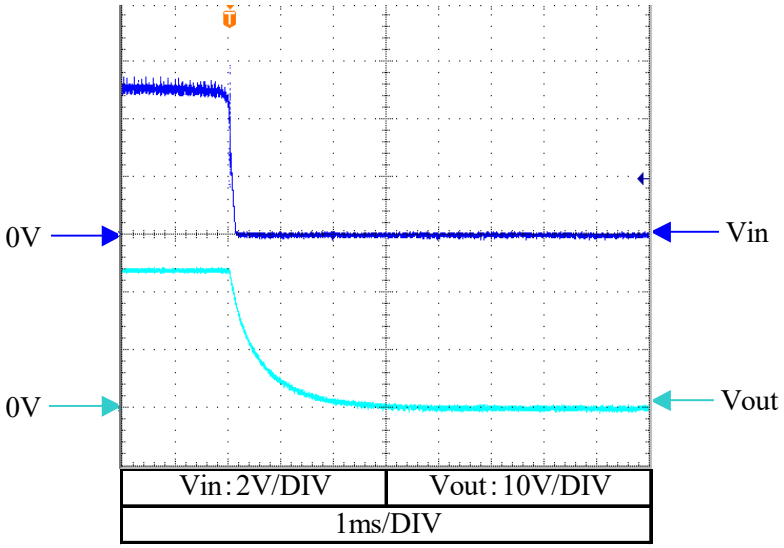
# 7. Output fall characteristics

Condition　　Vin　:　5V
Ta　:　25℃

Iout　:　0%



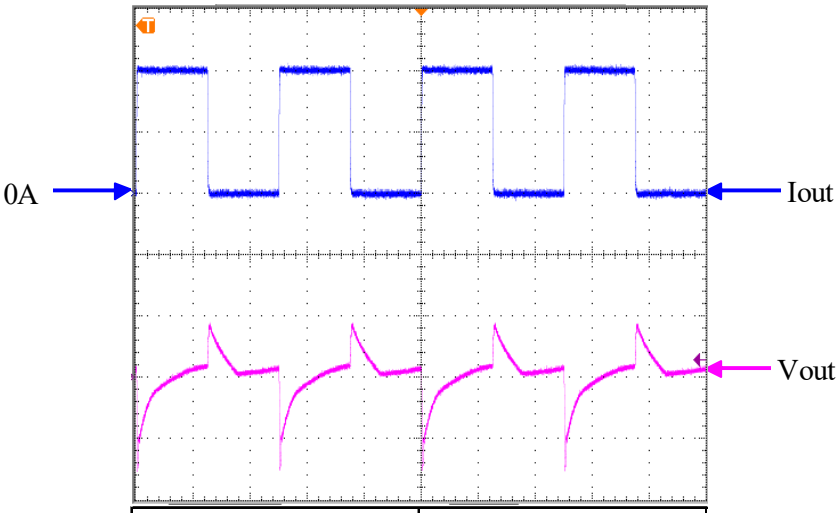

Iout　:　100%



## 8. Dynamic load response characteristics

Condition

Vin : 5V
Vout : ±12V
Iout : 0% ⇔ 100%
Tr=Tf : 100 μ s
f : 100Hz
Ta : 25℃

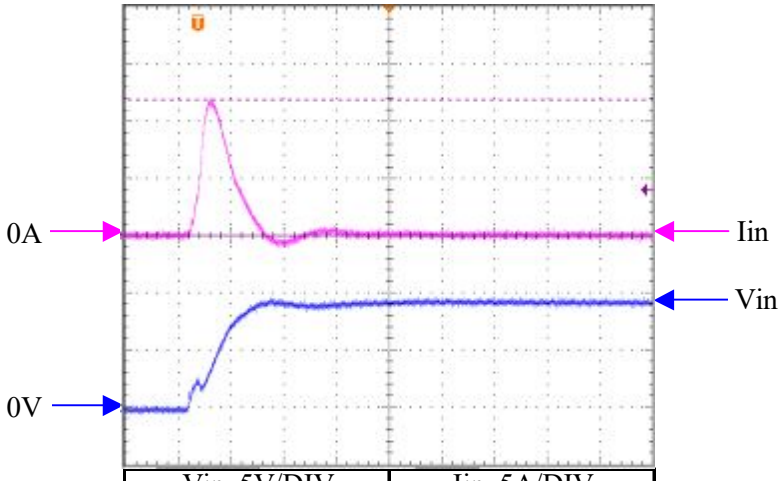



| Iout : 0.2A/DIV | Vout : 2V/DIV |
|---|---|
| 4ms/DIV | |

## 9. Inrush current waveform

Condition

Vin : 9V
Iout : 100%
Ta : 25℃

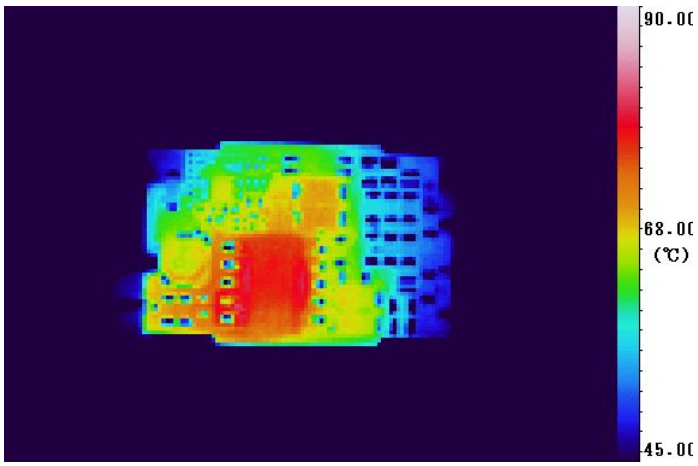



| Vin : 5V/DIV | Iin : 5A/DIV |
|---|---|
| 20μs/DIV | |

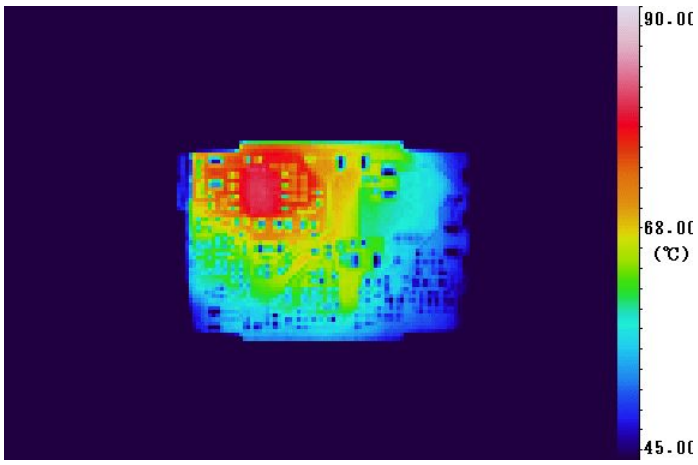
# 10. Temperature distribution

Condition
Vin : 5V
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.