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Material name : Evaluation data

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Customer's product name :

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TDK product name : DC-DC converter  
CC6-2405SF-E , CC6-2405SR-E

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# ***TDK-Lambda***

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

|         |             |
|---------|-------------|
| DWG.No. | TRSC-1543-2 |
|---------|-------------|

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(°C) |
|--------------|------------------|-------------------|--------------------|-----------------------------|-------------------------|
| CC6-2405SF-E | 18~36            | 5 ±3%             | 0~1200             | 6                           | -40 ~ +85 *2            |
| CC6-2405SR-E |                  | 6 ±3% *1          | 0~1000             |                             |                         |

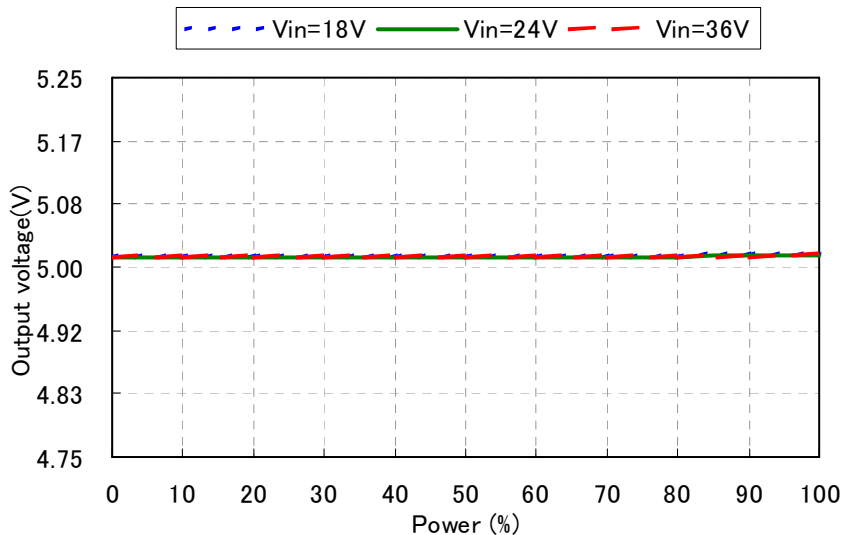
\*1 TRM and -Vout are short-circuited.

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

|                 |   |             |      |
|-----------------|---|-------------|------|
| TDK CORPORATION | Product name or model, title                |             |      |
|                 | DC-DC converter CC6-2405SF-E , CC6-2405SR-E |             |      |
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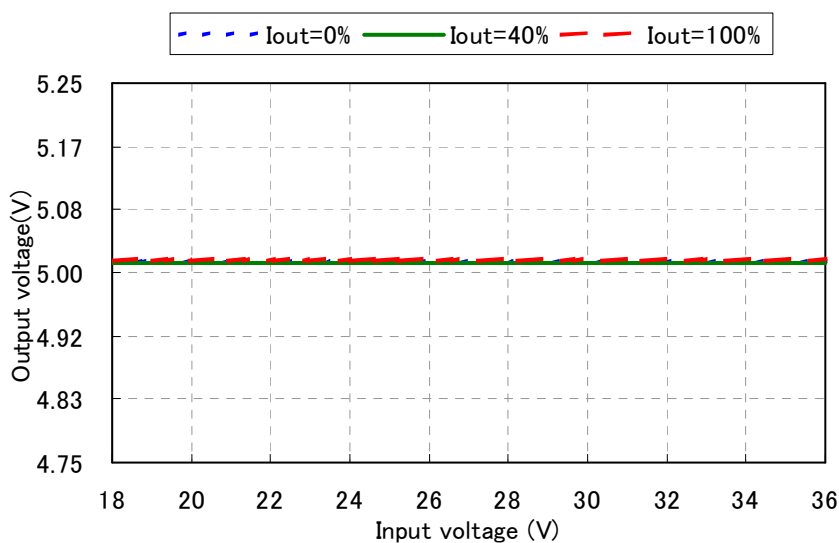
# 1. Load regulation

Condition Ta : 25°C



# 2. Line regulation

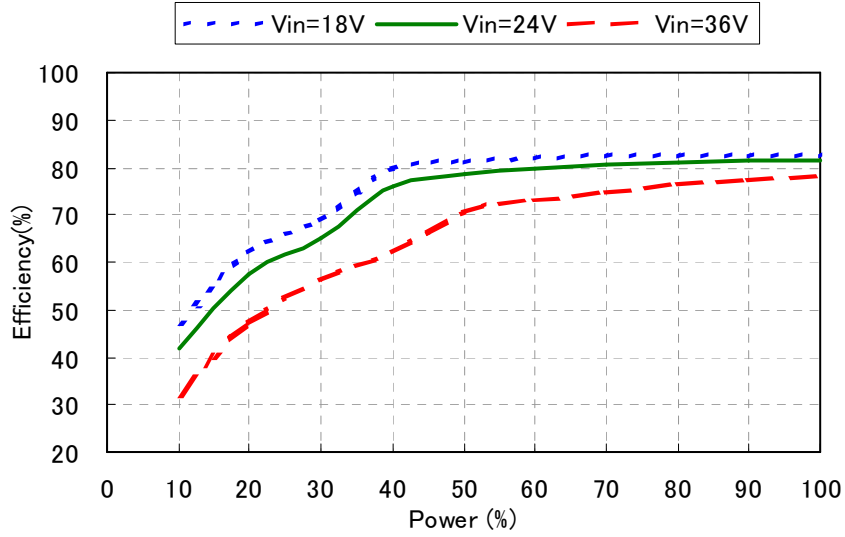
Condition Ta : 25°C



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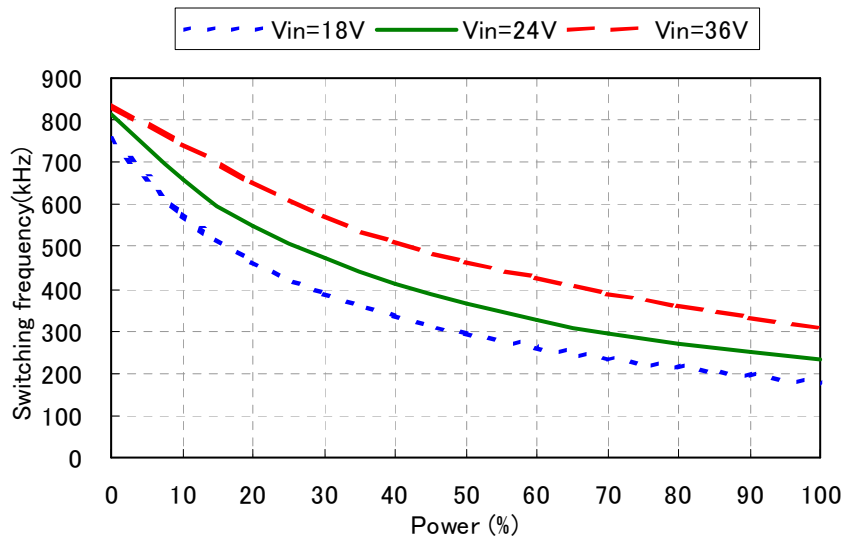
### 3. Efficiency

Condition Ta : 25°C



### 4. Switching frequency vs. output power

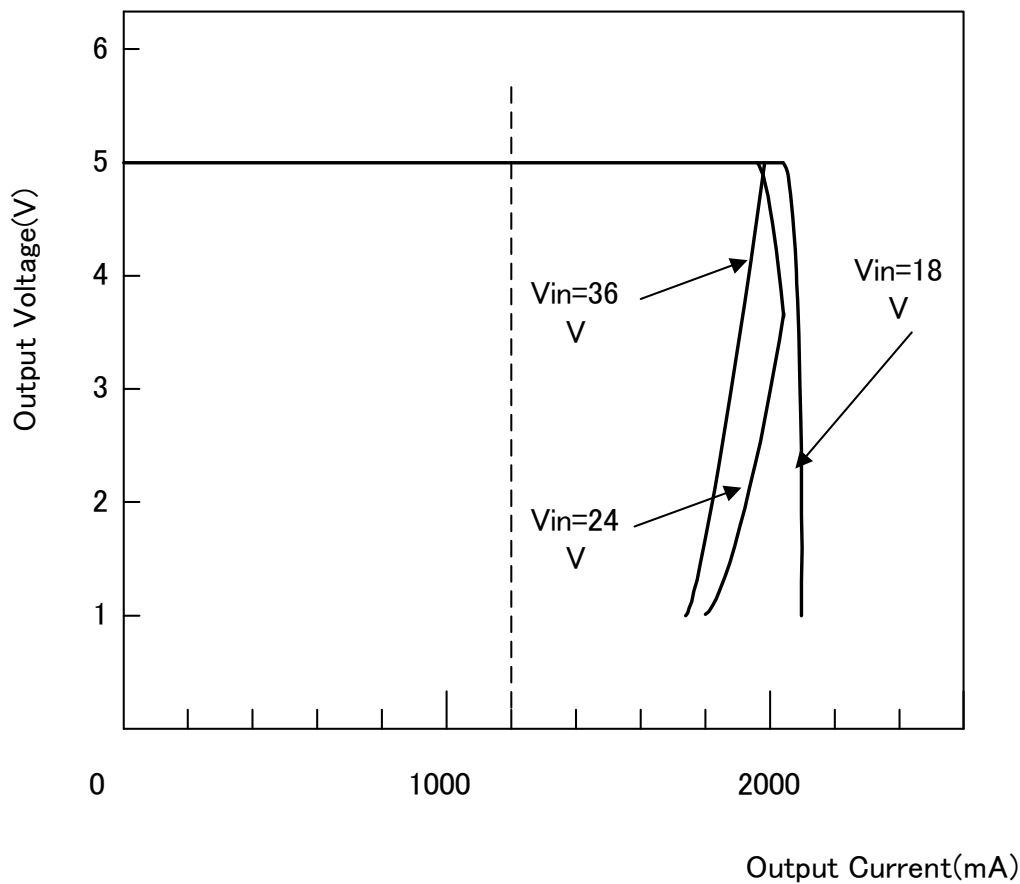
Condition Ta : 25°C



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## 5. Over current protection characteristics

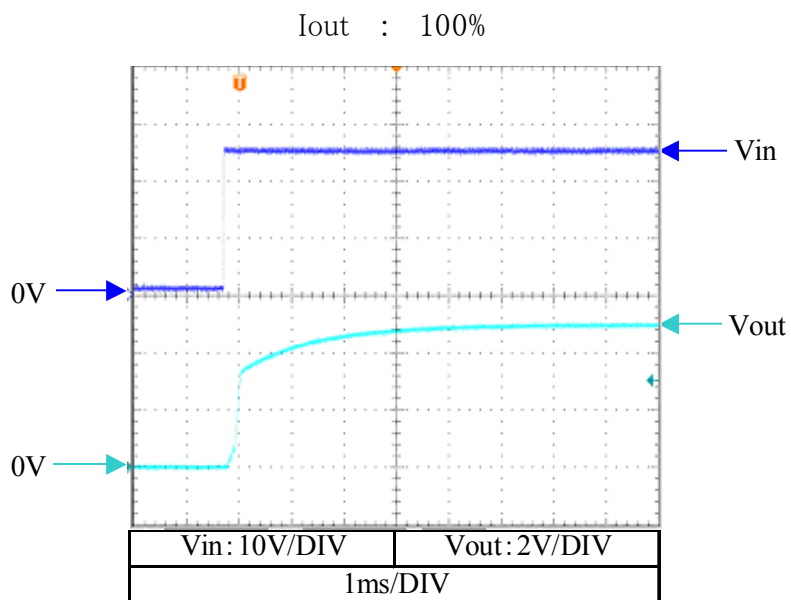
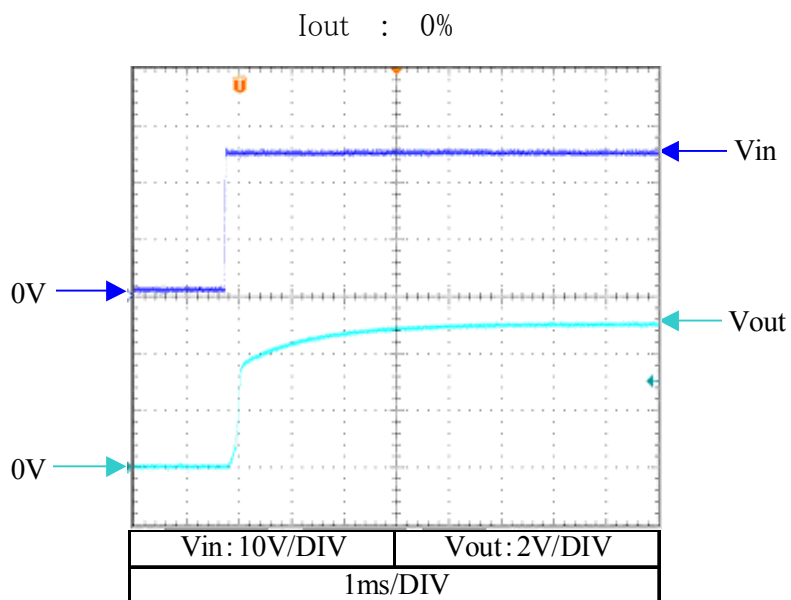
Condition Ta : 25°C



|   |                 |             |      |
|---|-----------------|-------------|------|
| Product name or model, title                |                 |             |      |
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## 6. Output rise characteristics

Condition       $V_{in}$  : 24V  
                    $T_a$  : 25°C

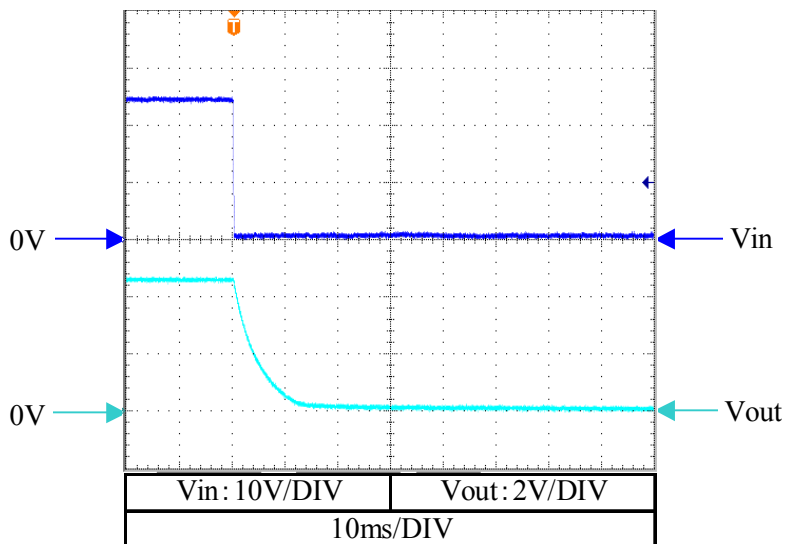


|   |             |              |
|---|-------------|--------------|
| Product name or model, title                |             |              |
| DC-DC converter CC6-2405SF-E , CC6-2405SR-E |             |              |
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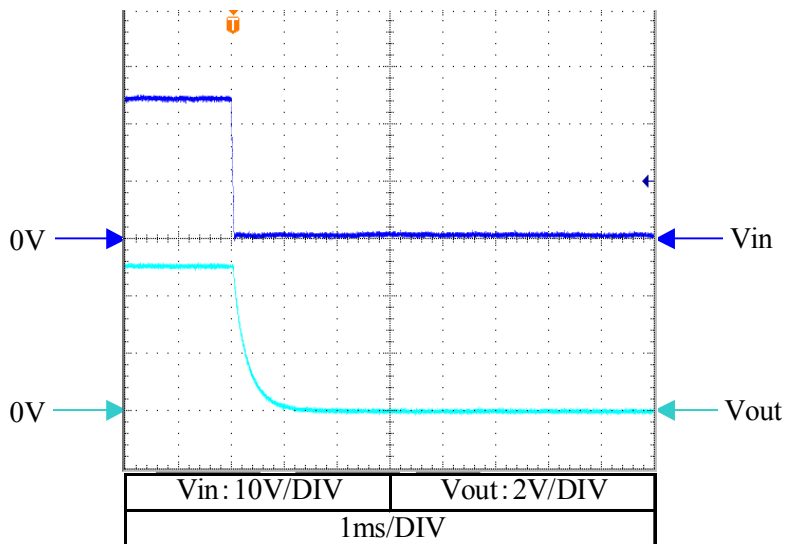
## 7. Output fall characteristics

Condition       $V_{in}$  : 24V  
                      $T_a$  : 25°C

$I_{out}$  : 0%



$I_{out}$  : 100%



Product name or model, title

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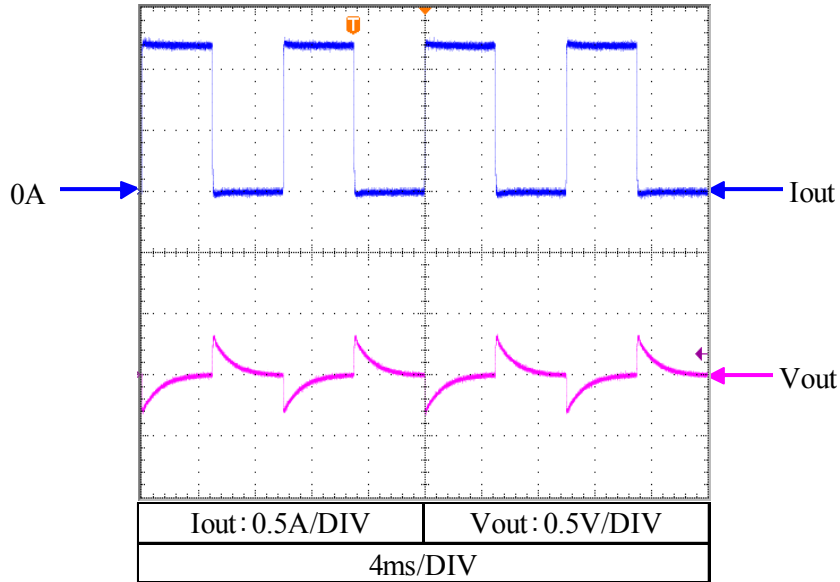
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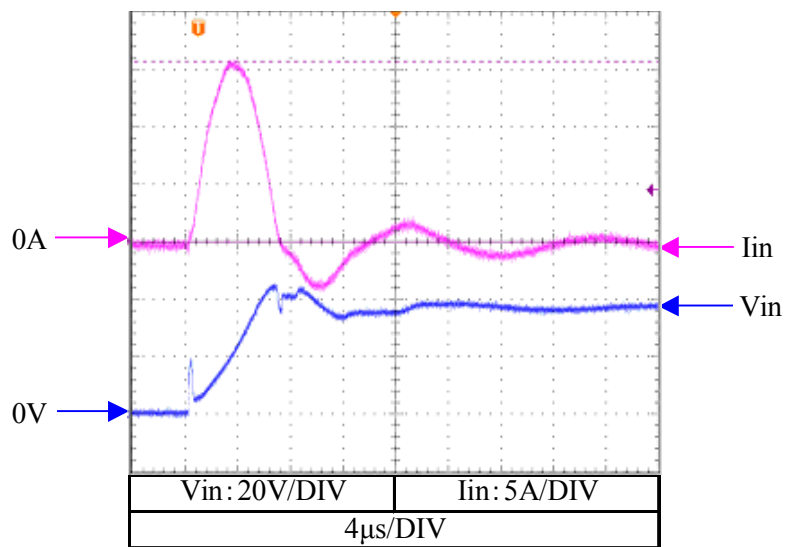
## 8. Dynamic load response characteristics

Condition  
 Vin : 24V  
 Vout : 5V  
 Iout : 0%  $\leftrightarrow$  100%  
 Tr=Tf : 100  $\mu$ s  
 f : 100Hz  
 Ta : 25°C



## 9. Inrush current waveform

Condition  
 Vin : 36V  
 Iout : 100%  
 Ta : 25°C



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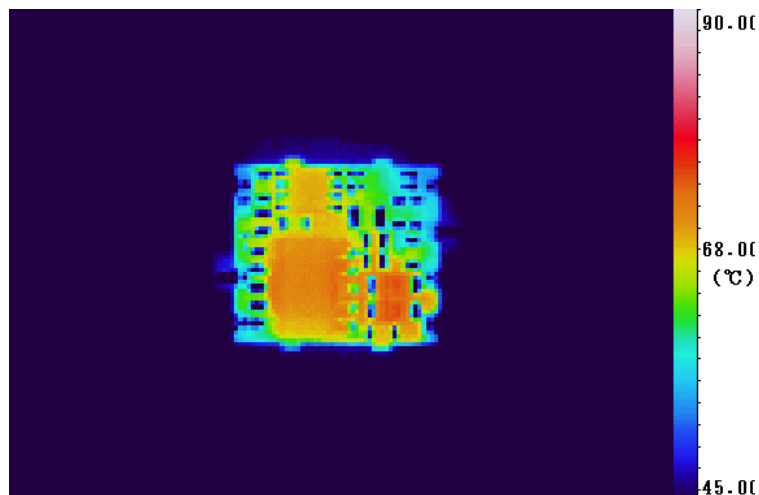
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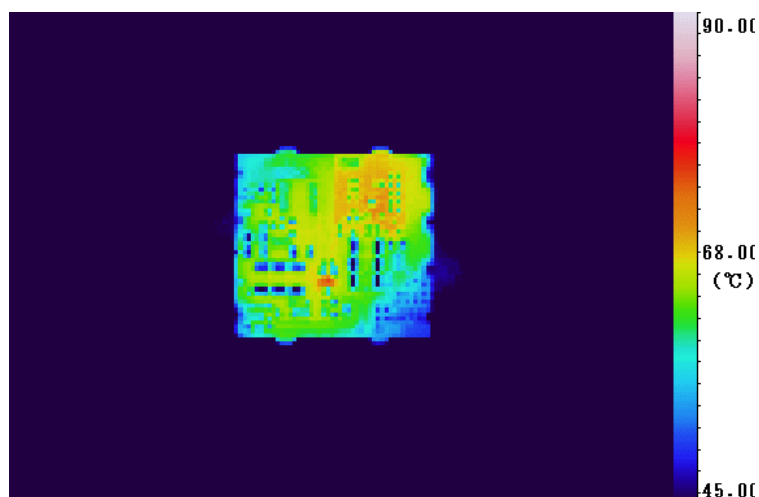
## 10. Temperature distribution

Condition      Vin : 24V  
                   Vout : 5V  
                   Iout : 100%  
                   Ta : 25°C  
                   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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