
Material name :

Evaluation data

Customer's product name :

TDK product name :

DC-DC converter
CC3-1212DF-E , CC3-1212DR-E

TDK-Lambda

TDK Corporation
Power Systems Business Group

DWG.No.	TRSC-1525-2
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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)
CC3-1212DF-E	9~18	±12 ±5%	0~125	3	-40 ~ +85 *2
CC3-1212DR-E		±15 ±5% *1	0~100		

*1 TRM and -Vout are short-circuited.

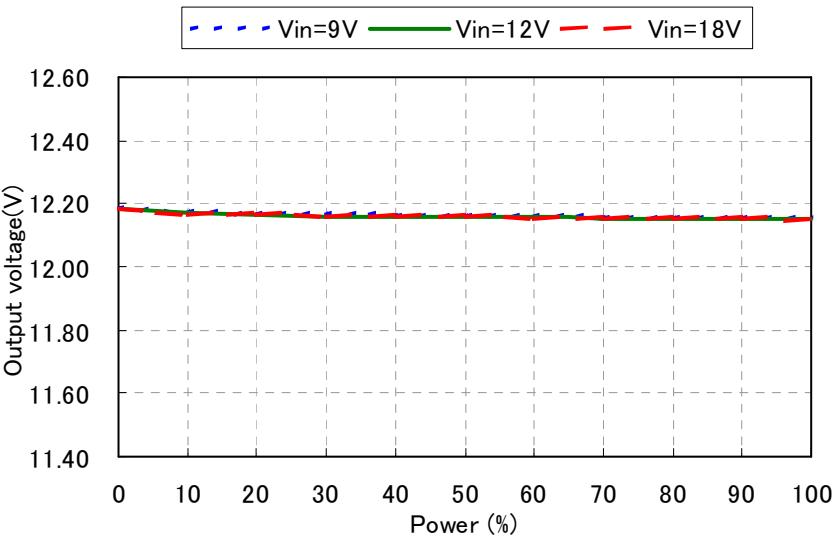
*2 At 50°C or more, output power derating is necessary.

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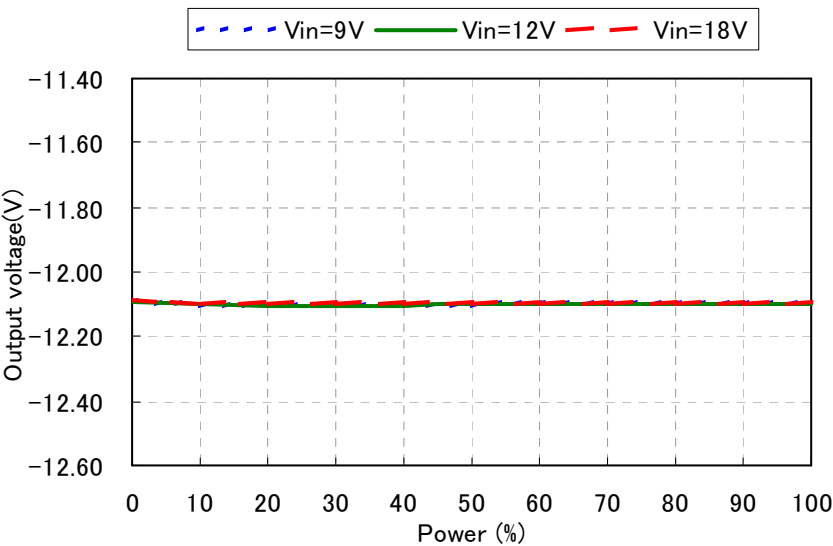
1. Load regulation

Condition Ta : 25℃

Vout=+12V



Vout=-12V

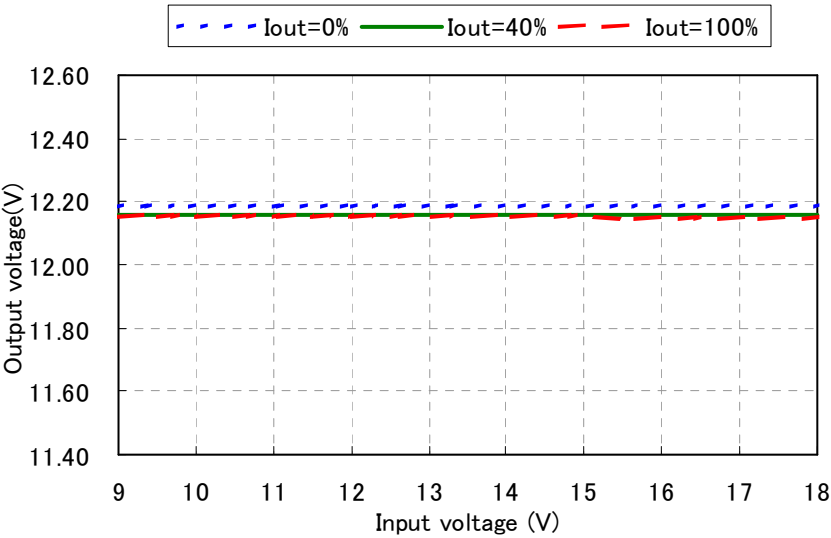


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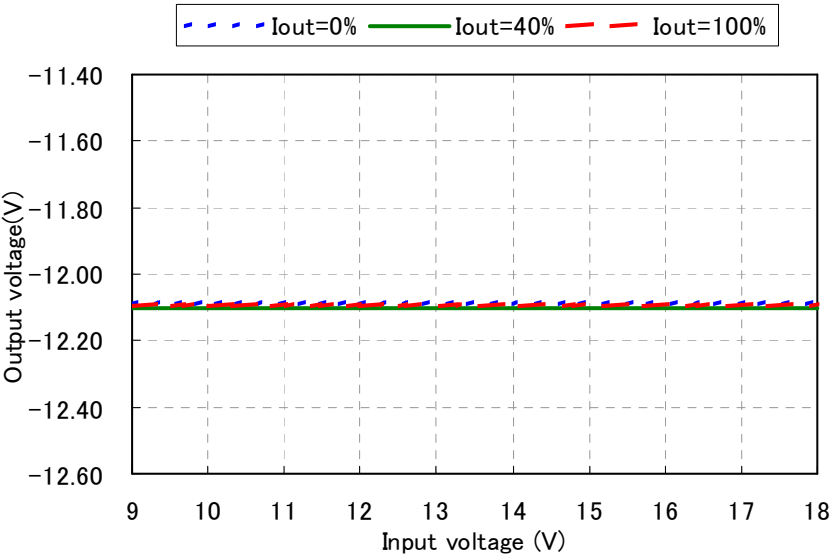
2. Line regulation

Condition Ta : 25℃

Vout=+12V



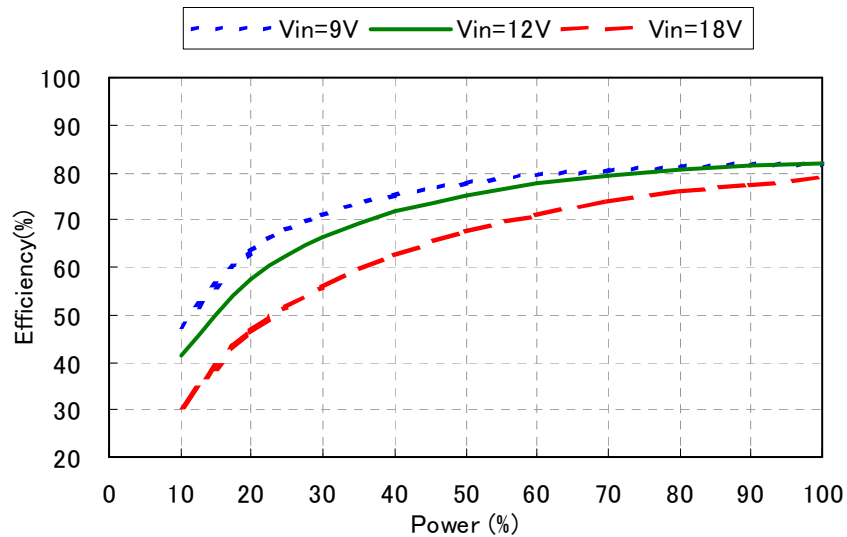
Vout=-12V



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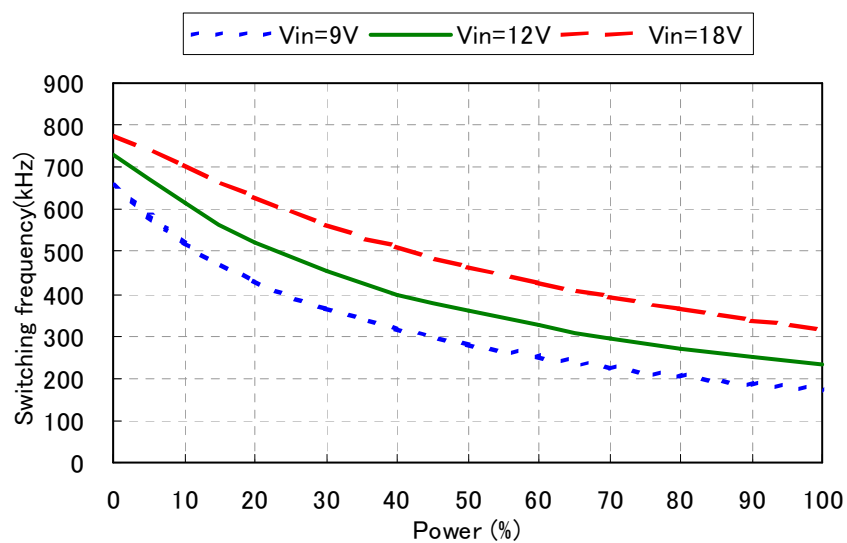
3. Efficiency

Condition Ta : 25°C



4. Switching frequency vs. output power

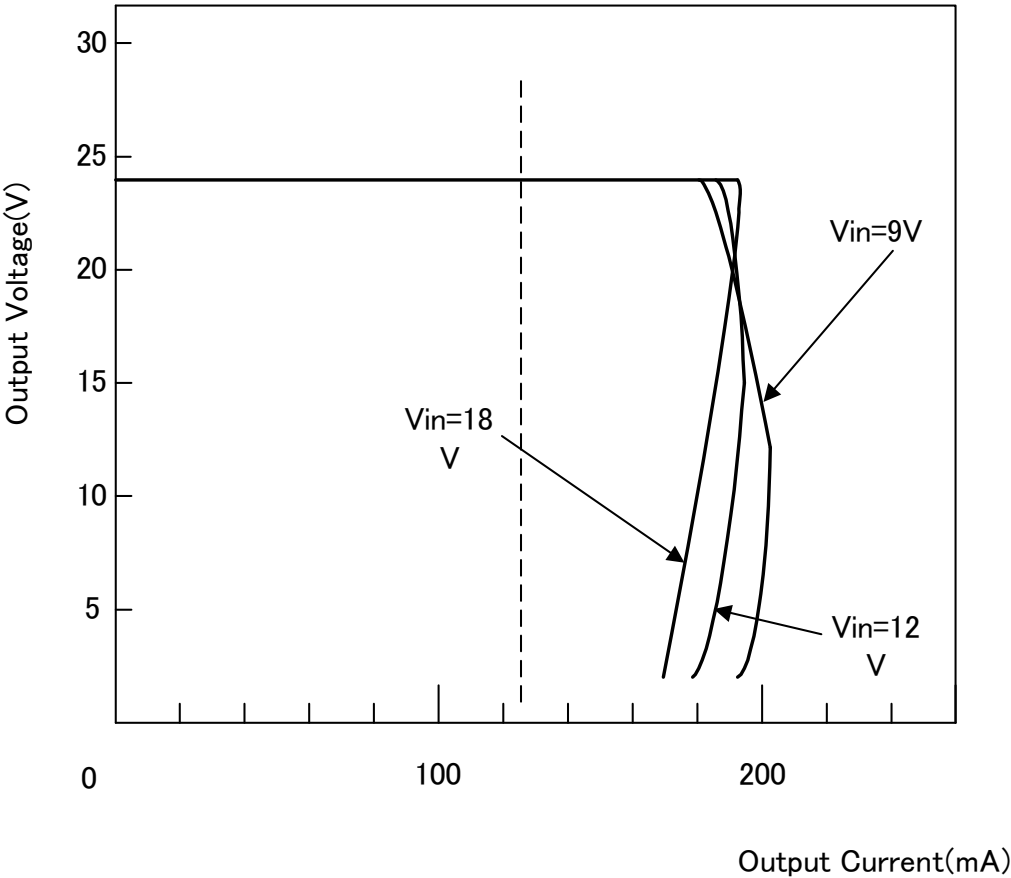
Condition Ta : 25°C



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5. Over current protection characteristics

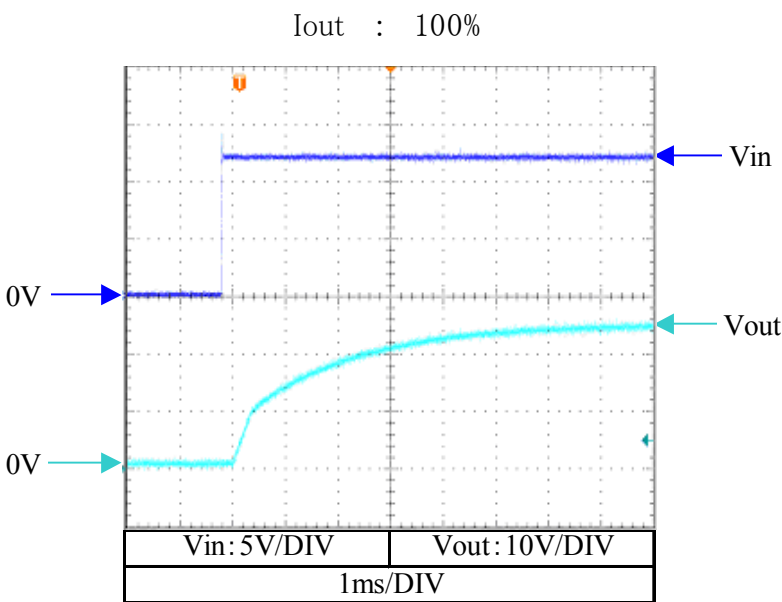
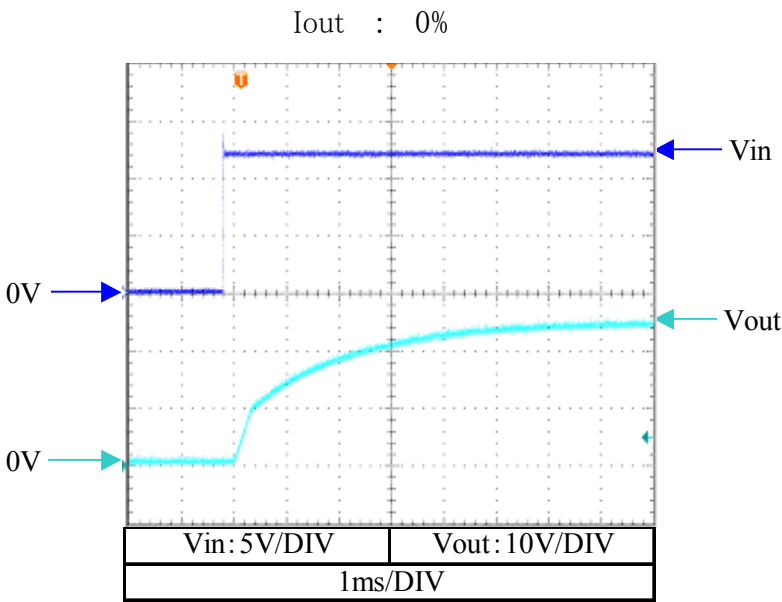
Condition Ta : 25℃



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6. Output rise characteristics

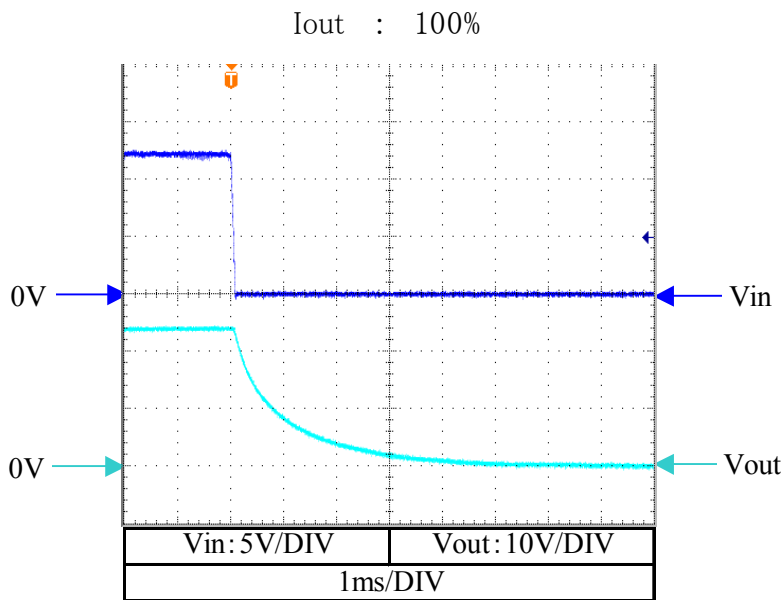
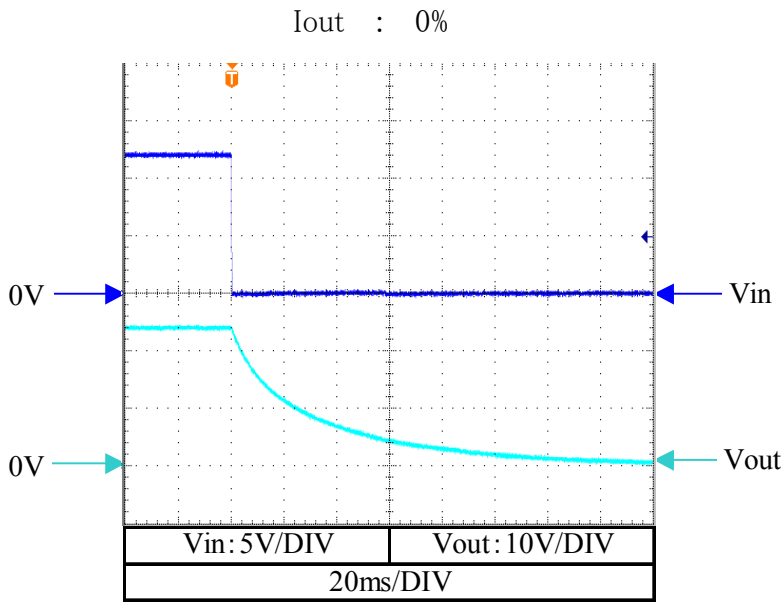
Condition Vin : 12V
Ta : 25°C



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7. Output fall characteristics

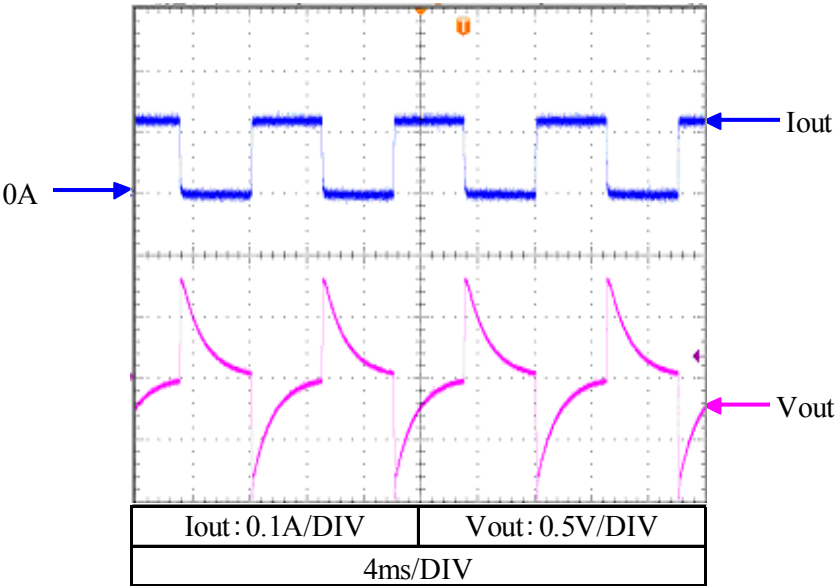
Condition Vin : 12V
Ta : 25°C



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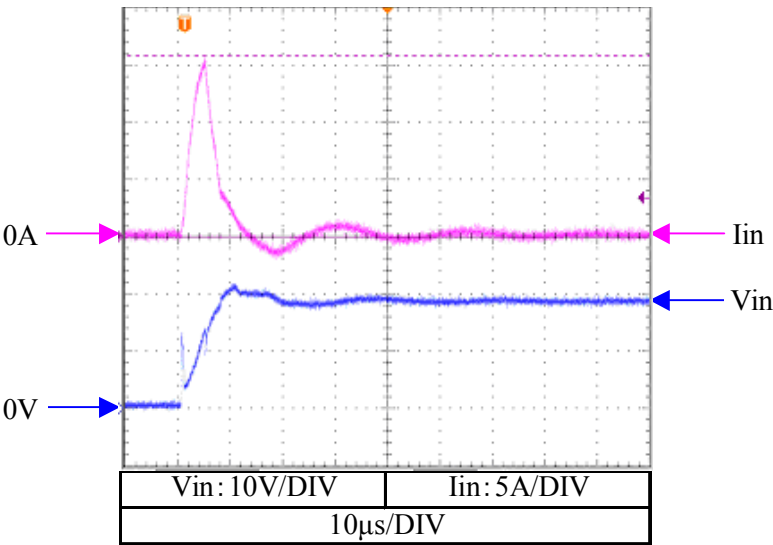
8. Dynamic load response characteristics

Condition Vin : 12V
Vout : ±12V
Iout : 0% ⇔ 100%
Tr=Tf : 100 μs
f : 100Hz
Ta : 25°C



9. Inrush current waveform

Condition Vin : 18V
Iout : 100%
Ta : 25°C

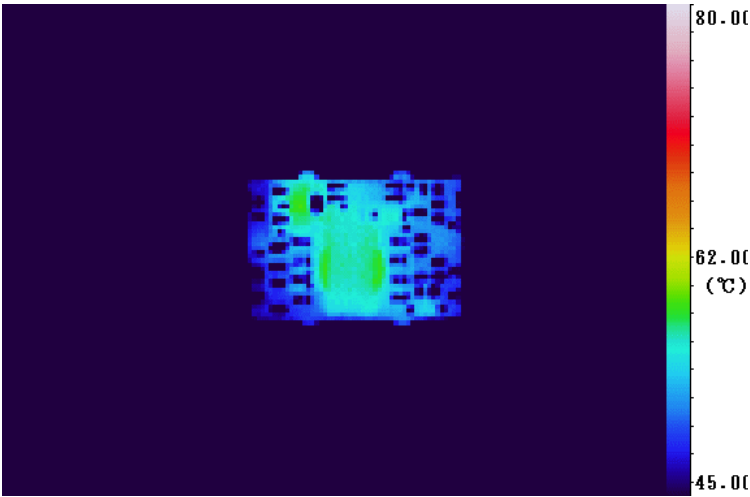


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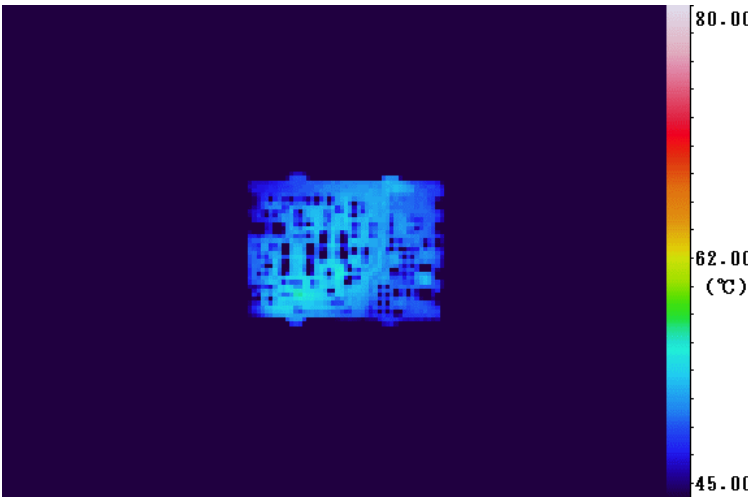
10. Temperature distribution

Condition Vin : 12V
 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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