

# DC-DC Converter Short Form

## MPD7D12\*S (Isolated DC-DC Converter)

### ■ Features

- 100W Power, Ultra Low Profile,
- Small size 45.0× 45.0× 8.0 mm typ. SMD
- Wide Input Voltage Range (36 to 75V)
- Parallel Operation is available
- Wide operational temperature ( -40°C to +85°C )  
(See the Thermal Derating)
- Input-Output Isolation Voltage (1.5kVdc)
- Over Current Limit Inception
- Low Voltage Protection
- Over Voltage Protection
- Remote ON/OFF
- Synchronizes start and halt
- Alarm Output
- EMI in accordance with VCCI, Class A (Needs External Filter Circuit)
- Recognized UL60950, CE Marking



### ■ GENERAL SPECIFICATIONS

		MPD7D***S
		128
Input	Nominal Input Voltage	48V
	Input Voltage Range	36~75V
	Turn-on Input Voltage	32~36V
	Turn-on/off Hysteresis	2V min.
Output	Output Voltage	5.0V
	Output Voltage Tolerance	-3%,+5% Vin:36~75V, Output Current & Temperature:*1
	Output Current *1	20A
	Over Current Limit Inception (min.)	21A
	Low Voltage Protection (max.)	4.5V
	Efficiency(typ.) *2	92.5%
	Output Ripple Noise Voltage (max.), BW=100MHz	125mVpp
	Remote ON/OFF	ON :RC pin connected to -Vin or open OFF :RC pin connected to +Vin
Isolation	Input – Output (min.)	1500Vdc
Environment	Operating Temperature & Humidity Range	-40~85 °C, 20~85%RH (No dew)
	Storage Temperature & Humidity Range	-40~85 °C, 10~90%RH (No dew)

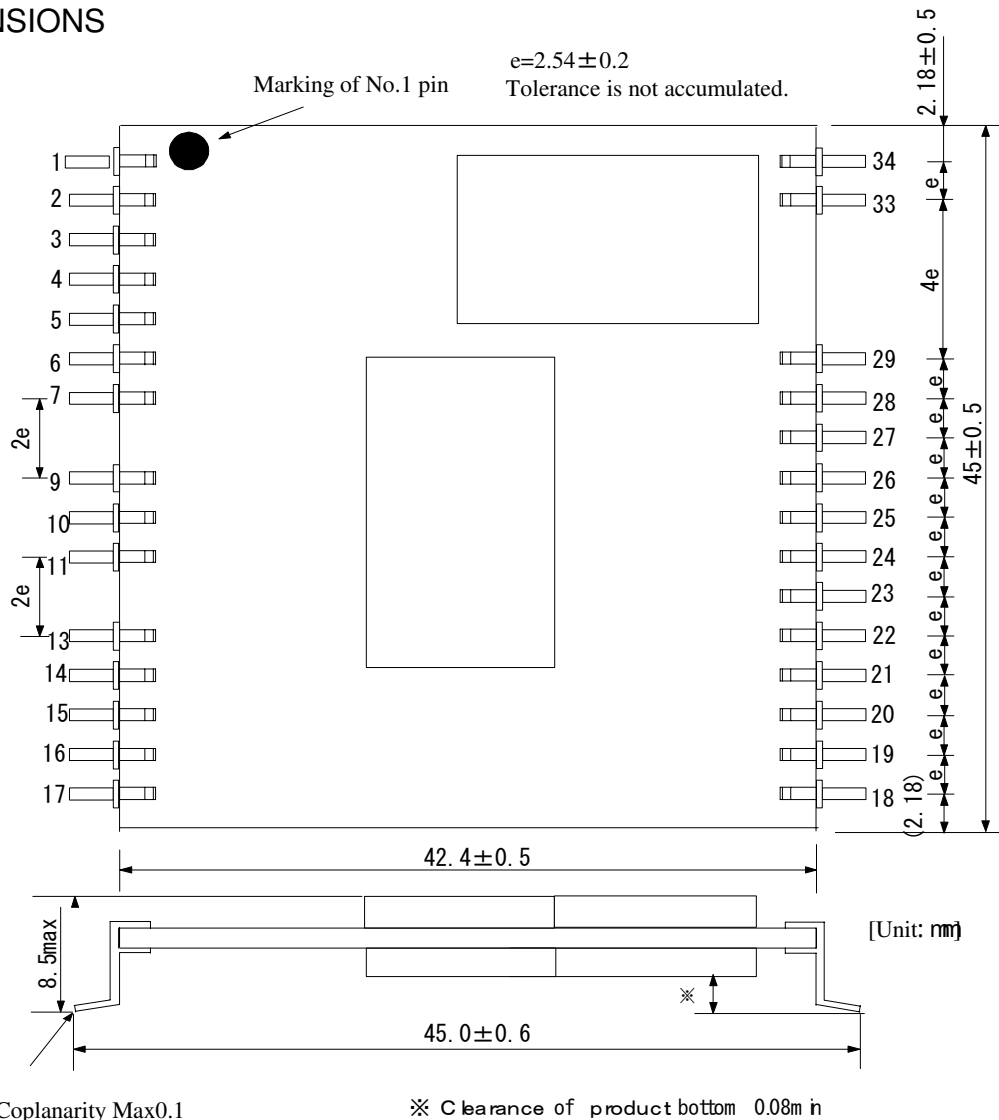
\*1 Please refer the Thermal Derating.

\*2 Vin=48V, Io=max., 1.0m/s air flow, Ta=25 °C

#### ⚠ Note:

1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

## ■ DIMENSIONS



Pin No.	Symbol	Function
1,2,16,17,18,19,33,34	NC	
3	ALM	Alarm output to stop all in abnormality *1
4,6	NC	
5	RC	Remote ON/OFF
7	PO	Parallel operation. *2
9,10,11	-Vin	(-)Input
13,14,15	+Vin	(+)Input
20,21,22,23	+Vout	(+)Output
24,25,26,27,28,29	-Vout	(-)Output

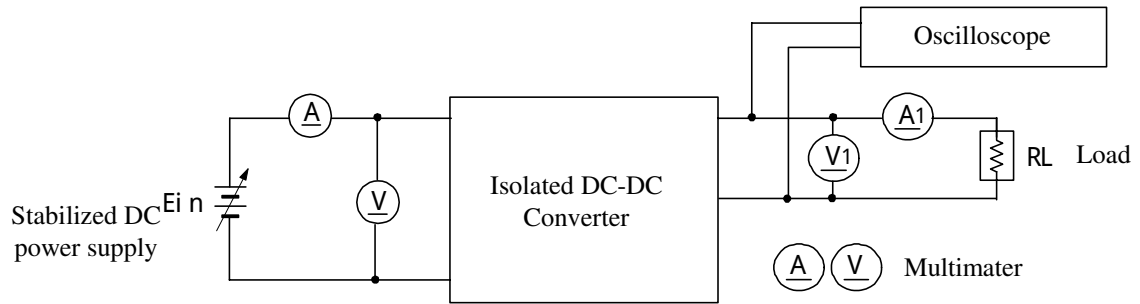
\*1 When arbitrary one converter stops abnormally and terminal ALMs of each other are connected mutually, all converters stop operating.

\*2 When plural converters are operated in parallel, the start timing can be unified by mutually connecting terminal POs of each other.

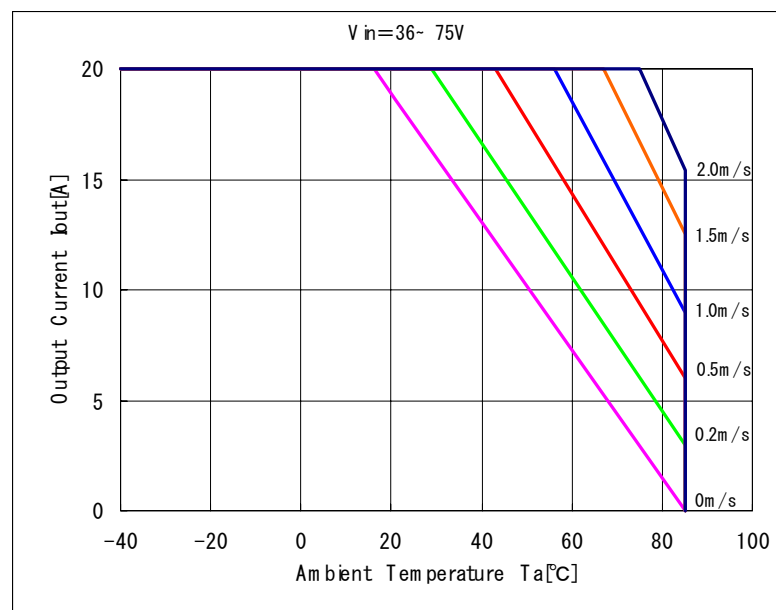
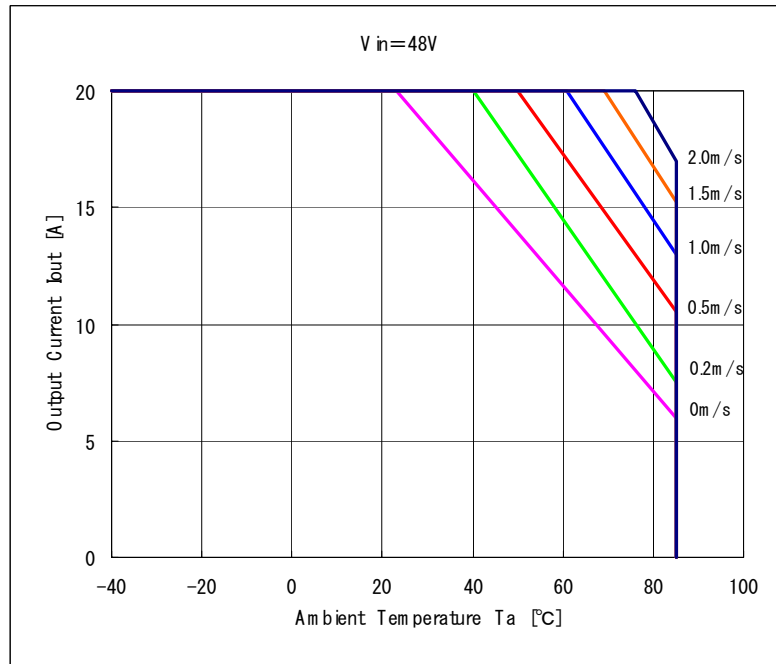
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## ■ TEST CIRCUIT



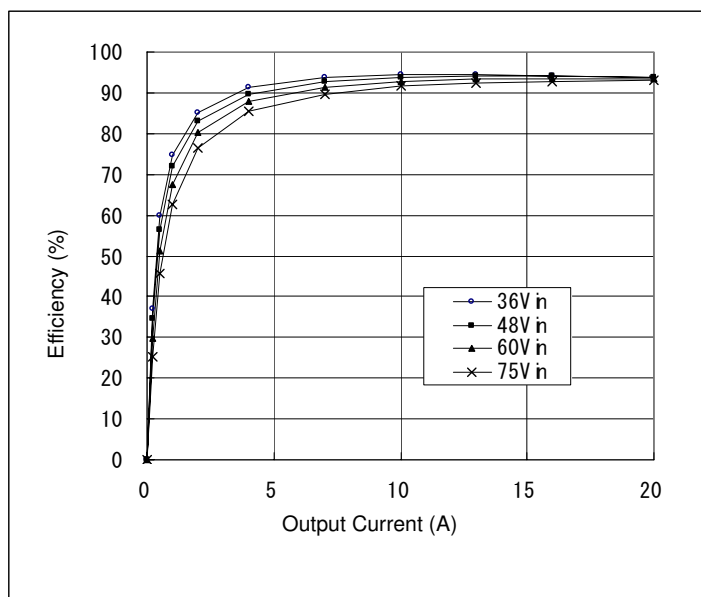
## ■ THERMAL DERATING



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## ■ EFFICIENCY



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