

DC-DC Converter Short Form

MPD7D05*S (Isolated DC-DC Converter)

■ Features

- Ultra Low Profile, Small size 45 by 36.2 by 4.0mm Typ
- SMD
- Wide Input Voltage Range(36 to 75V)
- Up to 10 devices in Parallel Operation
- Wide Operating Ambient Temperature(-40°C to +85°C)
- Input-Output Isolation Voltage(1.5kVdc)



■ FUNCTIONS

- Overcurrent Limit Inception
- Lowvoltage Protection
- Overvoltage Protection
- Remote On/Off
- Synchronized start and halt
- Alarm output
- EMI in accordance with CISPR22, Class A

■ GENERAL SPECIFICATIONS

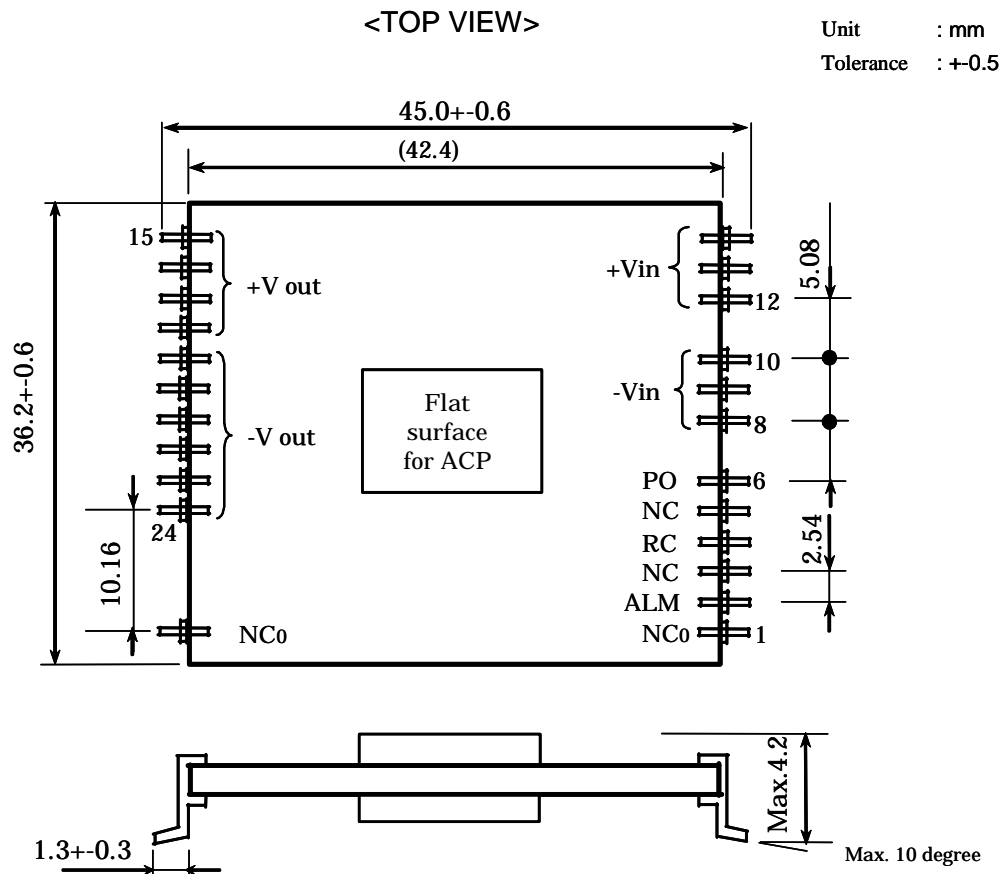
		MPD7D***S SERIES					
		052	053	054	056	057	058
Input	Nominal Input Voltage	48V					
	Input Voltage Range	36 to 75V with Forced Air Convection					
	Turn-on Input Voltage	32 to 36V					
	Turn-on/off Hysteresis (Min.)	2V					
Output	Output Voltage	1.2V	1.5V	1.8V	2.5V	3.3V	5.0V
	Output Voltage Tolerance	+5%,-3%					
	Nominal Output Current	16A	17A	16A	15A	15A	10A
	Overcurrent Limit Inception (Min.)	16.5A	17.5A	16.5A	15.4A	15.4A	10.3A
	Lowvoltage Protection(Max.)	90% Nominal output voltage					
	Efficiency(typ) Note1	86%	84%	86%	89%	90%	90%
	Output Ripple Noise(Max.) Filter band width:20MHz	100mVp-p					
	Remote ON/OFF	ON :RC pin connected to -Vin or open OFF :RC pin connected to +Vin					
Isolation Environment	Input - Output(Min.)	1500Vdc					
	Operating Ambient Temperature & Humidity	-40 to 85°C 20 to 85% No dew					
	Storage Ambient Temperature & Humidity	-45 to 90°C 10 to 95% No dew					

Note 1 : Vin=48V Iout=rated output current

⚠ 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 assignment

No.	Designation	Function
1,28	NC0	Pins at corners of substrate are bonded with resin on a motherboard. Note 1
2	ALM	Alarm Note 2
3,5	NC	-
4	RC	Remote on/off Control
6	PO	Parallel Operation Note 3
8,9,10	- Vin	- Input
12,13,14	+ Vin	+ Input
15,16,17,18	+V out	+Output
19,20,21,22,23,24	-V out	-Output

Note 1: Prevention against falling DC-DC converters from a underside of the motherboard, both side mounted type, during the secondary reflow.

Note 2: Any DC-DC converter halted by abnormality forces all DC-DC converters, which are connected ALM pins to the others for parallel and/or multiple operation.

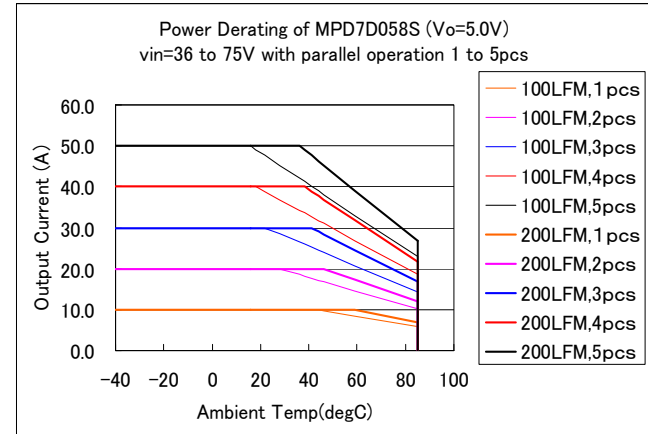
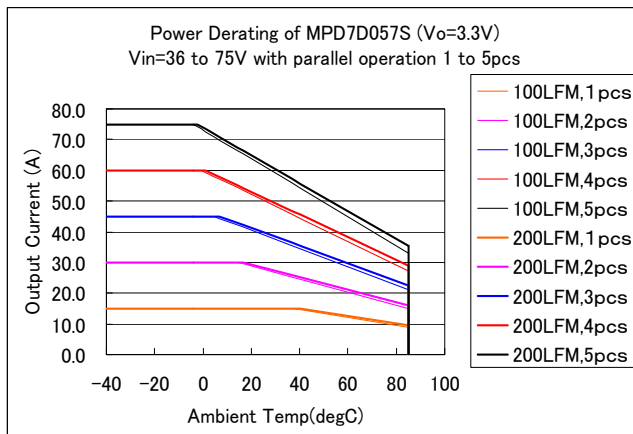
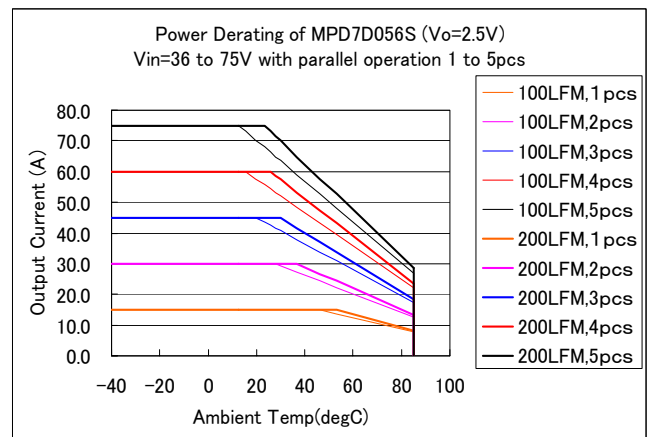
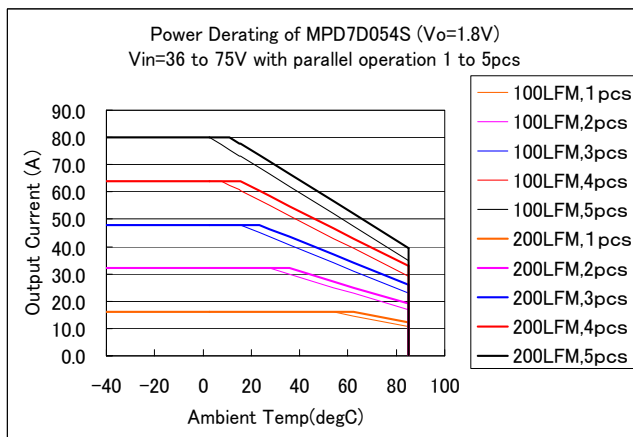
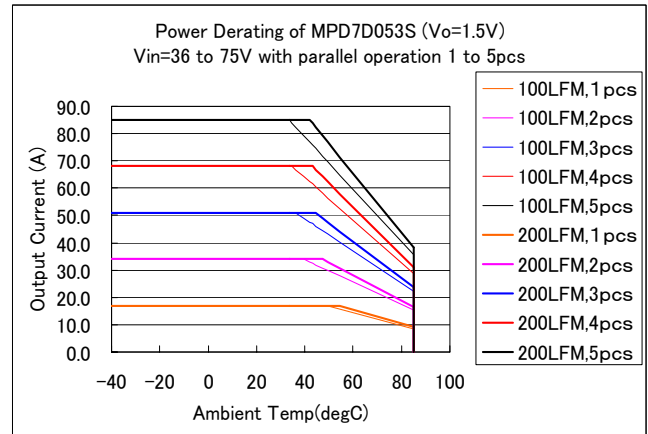
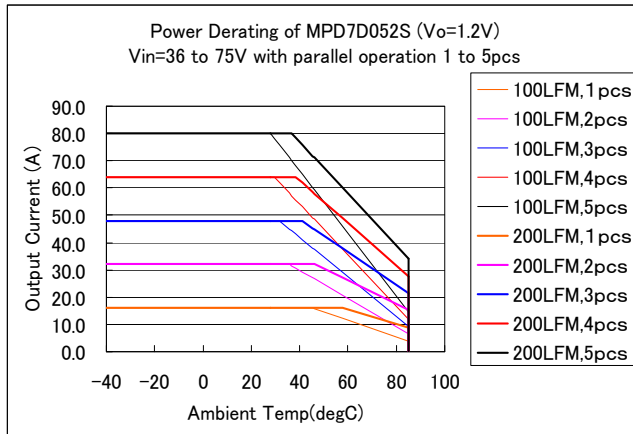
Note 3: DC-DC converters connected PO pins to the others can synchronize start timing for parallel and/or multiple operation.

⚠ 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.

■ Typical Power Derating <For Reference Only>

This product is able to operate in parallel in order to multiple output current without external diodes and other additional parts.



⚠ 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.

■ Safety

UL60950 recognized, CE marking(LVD & EMC directive)



Product specification in this catalog are as of March 2004, and are subject to change or stop the supply without notice.

Please confirm the specification before ordering any product.

If there are any questions, please contact our sales representatives or engineers.

⚠ 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.