

DC-DC Converter Short Form

MPD5D01*S (Isolated 5W DC-DC Converter)

■ Features

- No De-Rating (@ 40LFM Natural Convection Air Flow)
- Smallest & Lowest Profile in the Industry
- Surface Mount
- Wide Input Voltage Range: (36 to 75V)
- Current Sharing (Up to 10 devices in Parallel Operation)
- Power Sequencing
- On/Off Control Function
- Wide Operating Temperature Range (-40 ~ +85°C)
- Input-Output Isolation (1.5kVdc for 1 minute)
- Over current Limit Inception
- Low voltage Protection
- Over voltage Protection
- Alarm Output
- EMI Compliance with CISPR22, Class A



■ GENERAL SPECIFICATIONS

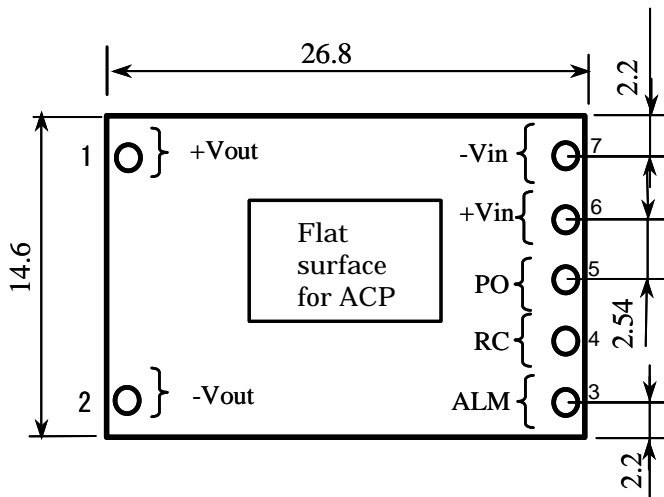
Model Items		MPD5D_S Series				
		013	014	016	017	018
Input	Nominal Input Voltage	48V				
	Input Voltage Range	36 to 75V				
	Operating Condition	36 to 60V(Natural Air Convection 40LFM [0.2m/s]) 36 to 75V(Forced Air Convection 100LFM [0.5m/s])				
	Turn-on Input Voltage	32 to 36V				
	Turn-on/off Hysteresis (Min.)	2V				
Output	Output Voltage	1.5V	1.8V	2.5V	3.3V	5.0V
	Output Voltage Tolerance	+5%,-3%				
	Nominal Output Current	0.8A	1.0A	1.2A	1.5A	1.0A
	Over current Limit Inception (Min.)	0.82A	1.03A	1.23A	1.55A	1.03A
	Low voltage Protection (Max.)	90% of Nominal Output Voltage				
	Efficiency(typ)	70%	75%	80%	84%	85%
	Output Ripple and Noise (Max.)	50mVp-p with $f_{BW}=20\text{MHz}$				
	Remote ON/OFF control	ON : RC Pin Connected to -Vin or open OFF : RC Pin Connected to +Vin				
Isolation	Input - Output(Min.)	1500Vdc 1minute				
Environment	Operation Ambient Temperature	-40 to 85°C				
	Operating Humidity	20 to 85% No Condensation				
	Storage Ambient Temperature	-45 to 90°C				
	Storage Humidity	10 to 95% No Condensation				

⚠ 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

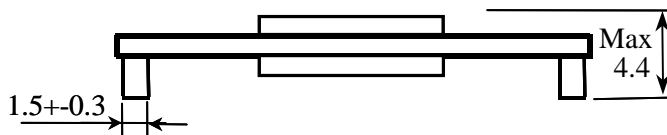
<TOP VIEW>



■ Pin assignment

Pin No.	Designation	Function
1	+Vout	+Output
2	-Vout	-Output
3	ALM	Alarm Note2
4	RC	Remote On/Off Control
5	PO	Parallel Operation Note3
6	+Vin	+ Input
7	-Vin	- Input

Unit : mm
Tolerance : ± 0.5



Note1

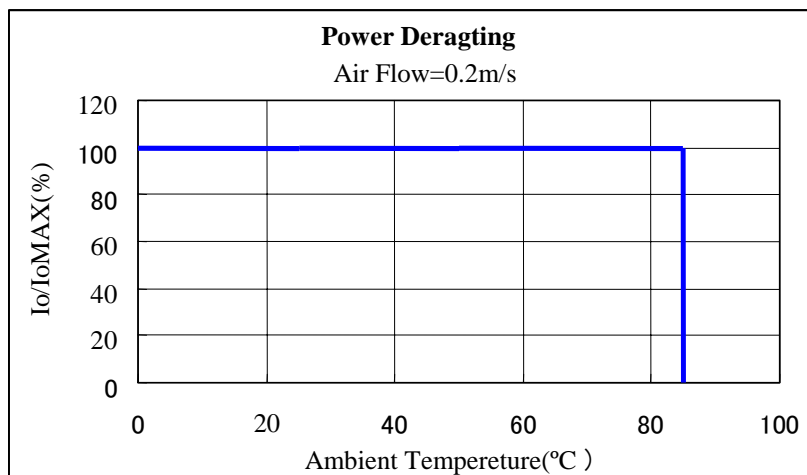
Weight :Max.8g

Note 1: Solder sticks on the top of pins. The solder melts during reflow process and the product shrinks in height. 4.4max is the height after mounted on motherboard.

Note 2: Any DC-DC Converter halted abnormally forces all DC-DC Converters, connected via ALM pins for parallel and/ or multiple operation, to stop their operation.

Note 3: The start-up of DC-DC Converters connected via PO pins is synchronized for parallel and/ or multiple operation (Power Sequencing).

■ Typical Power Derating



Product specifications in this catalog are as of Oct. 2004, and are subject to change or discontinuance without notice.

Please confirm the specification before ordering any product.

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

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