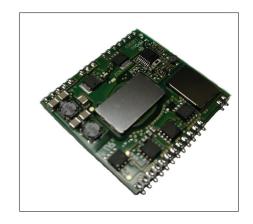
#### **■**Features

- No Derating (@ 40LFM Natural Convection Air Flow)
- Smallest and 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 to +85 degreeC)
- 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
- Multiple Sources Available

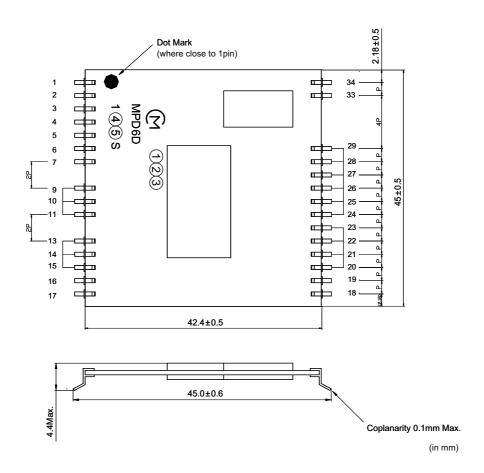


#### **■**Geneal Specifications

Mo		MPD6D12_S Series					
Item		122	123	124	126	127	128
Input	Nominal Input Voltage	48V					
	Input Voltage Range	36 to 75V (Natural Air Convection 0.2m/s or 40LFM)					
	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	12A	11A		10A	9A	6A
	Over Current Limit Inception (Min.)	12.4A	11.3A 10.3A 9.3A 6.3		6.2A		
	Low Voltage Protection (Max.)	90% of Nominal Output Voltage					
	Efficiency (Typ.) Note 1	84%	86%	88%	90%	91%	92%
	Output Ripple and Noise (Max.)	50mVp-p with fbw=100MHz					
	Remote On/Off	ON : RC Pin Connected to -Vin or Open OFF : RC Pin Connected to +Vin					
Isolation	Input-Output (Min.)	1,500Vdc, 1 minute					
Environment	Operation Ambient Temperature Operating Humidity	-40 to 85°C 20 to 85% No Condensation					
	Storage Ambient Temperature Storage Humidity	-45 to 90°C 10 to 95% No Condensation					

Note 1: Vin=48V, Iout=Nominal Output Current

#### **■**Appearance and Dimensions



#### **Pin Number and Function**

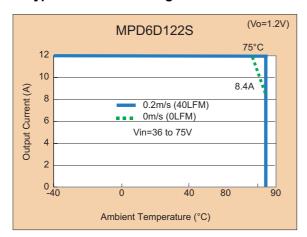
Pin No.	Pin Symbol	Function		
1,2,4,6,16,17,18,19,33,34	NC	Not Connected Note1		
3	ALM	Alarm Note2		
5	RC	Remote On/Off Control		
7	PO	Parallel Operation Note3		
9,10,11	-Vin	-Input		
13,14,15	+Vin	+Input		
20,21,22,23	+Vout	+Output		
24,25,26,27,28,29	-Vout	-Output		

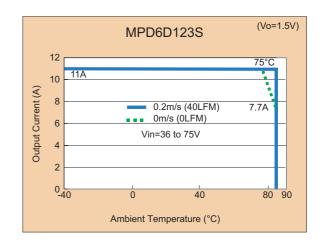
Note 1: It is recommended that pins at four corners of the substrate be bonded to the assembly board with a thermal setting resin when DC-DC Converters are mounted on the assembly board's underside. Otherwise DC-DC Converters may fall from the assembly board during the secondary reflow process.

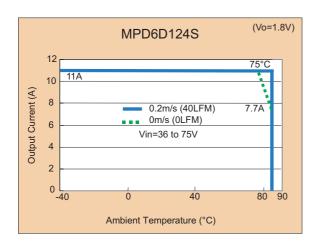
Note 2: Any DC-DC Converter halted abnormally forces all DC-DC Converters, connected via ALM pins for parallel and/or multiple operation, to stop their operation.

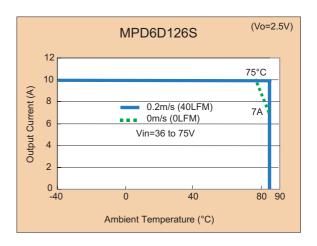
Note 3: The start-up of DC-DC Converters connected via PO pins may be synchronized for parallel and/or multiple operation (Power Sequencing).

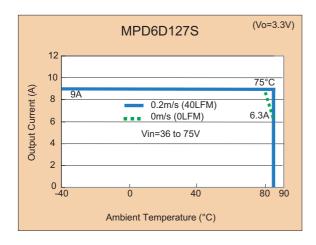
#### **■**Typical Power Derating

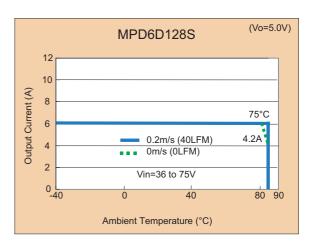












<sup>▲</sup>Note • Please read rating and ▲CAUTION (for strage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.
• This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering

#### ■Safety

UL60950 recognized, CE marking (LVD and EMC directive)







Compliance of EMC directive is confirmed by TUV Rheinland Japan

Product specification in this catalog are as of July 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.