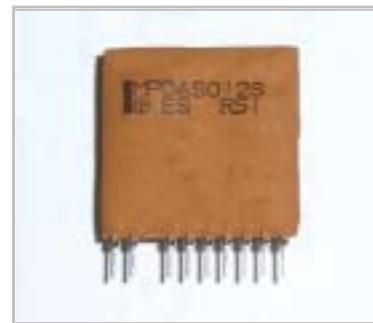


DC-DC Converter Short Form

MPD6S012S (Output Voltage Variable / 3A Output)

■ Features

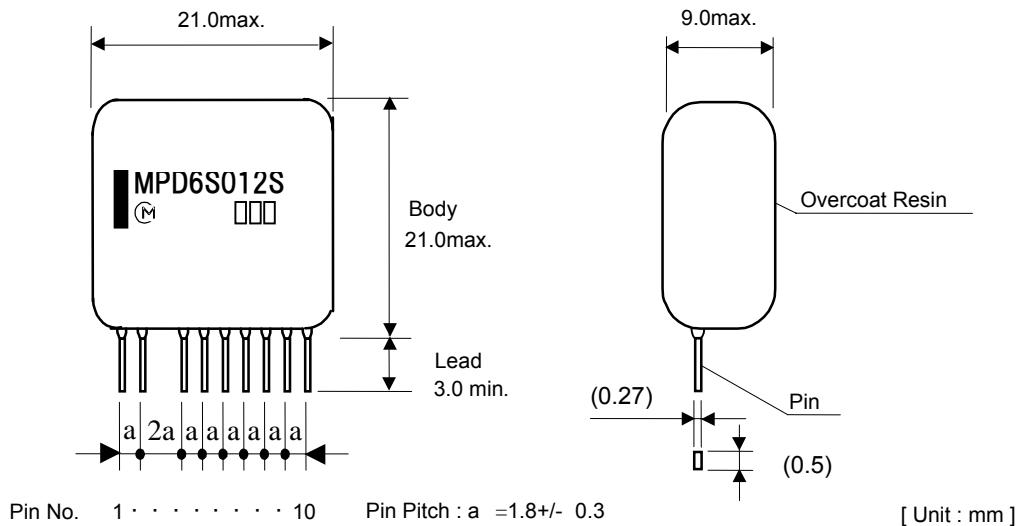
- High Efficiency (95%@3.3V/1A)
- Small Footprint SIP
- Wide Output Voltage (1.1-3.6V)
- Wide Input Voltage (3.0-5.5V)
- Short Circuit Protection
- No external caps required



■ General Specifications (Ta=25°C)

Item	Symbol	Condition	MIN.	TYP.	MAX.	UNIT
Input Voltage	Vin		3.0	5.0	5.5	V
Output Voltage	Vout	Vin-Vout>1V	1.1	-	3.6	V
Output Current	Iout		0	-	3	A
Ripple Voltage	Vrip	Vin=5V,Vo=3.3V,Io=3A.	-	-	100	mVpp
Efficiency	EFF	Vin=5V,Vo=3.3V,Io=1A.	-	95	-	%

■ Dimensions and Pin Assign



Pin No.	Signal
1.	Vin
2.	ON/OFF
3.	no pin
4,5.	N.C(internally used)
6,7.	GND
8.	Adjust
9,10.	Vout

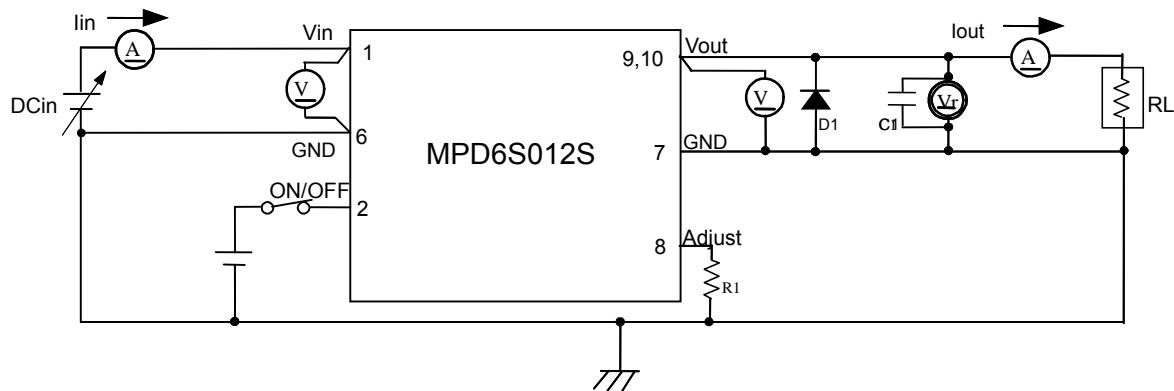
⚠ Note:

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.

■ Rating

- Input Voltage : 3.0 to 5.5V
- ON/OFF Voltage : 0 to Vin
- Operating Ambient Temperature : 0 to +70 °C
- Storage Ambient Temperature : -40 to +85 °C

■ Test Circuit



■ Output Voltage Adjustment

$$R1 = \frac{20}{\frac{5.782}{V_{out}[V]} - 1.606} - 5.479 \text{ [k}\Omega\text{]}$$

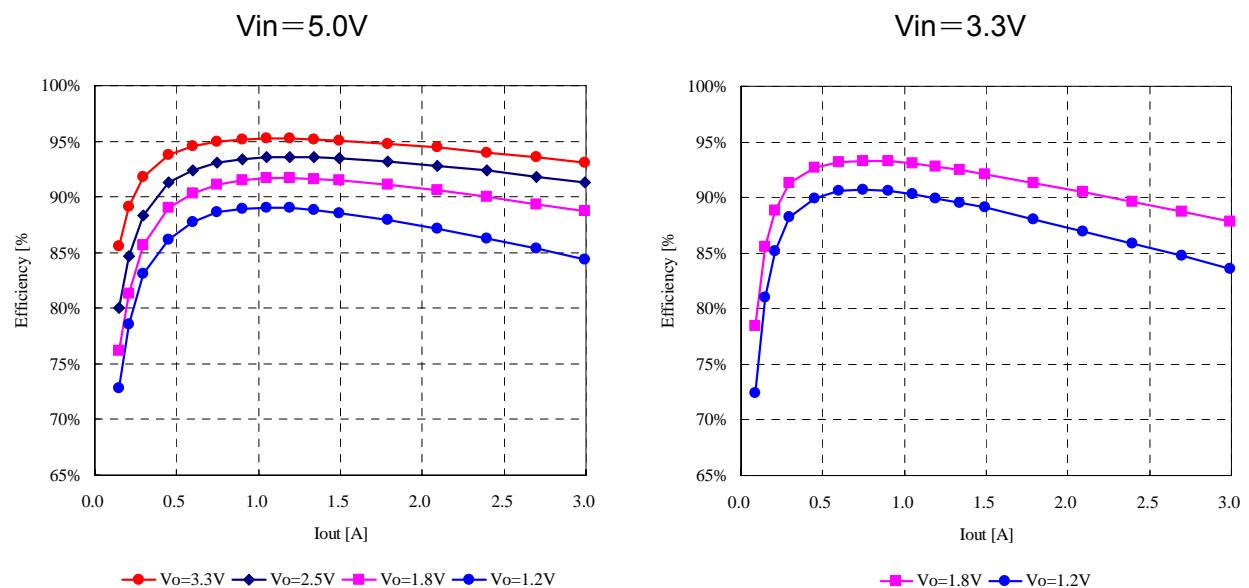
<RTRIM CALCULATION EXAMPLE>

Vout(V)	Calculated R1 (ohm)	R1 example (ohm)
3.6	∞	Open
3.3	131.4k	130k+1.5k
2.5	22.82k	22k+820
1.8	6973	6.8k+180
1.5	3415	3.3k+120
1.2	747	680+68
1.1	0	Short

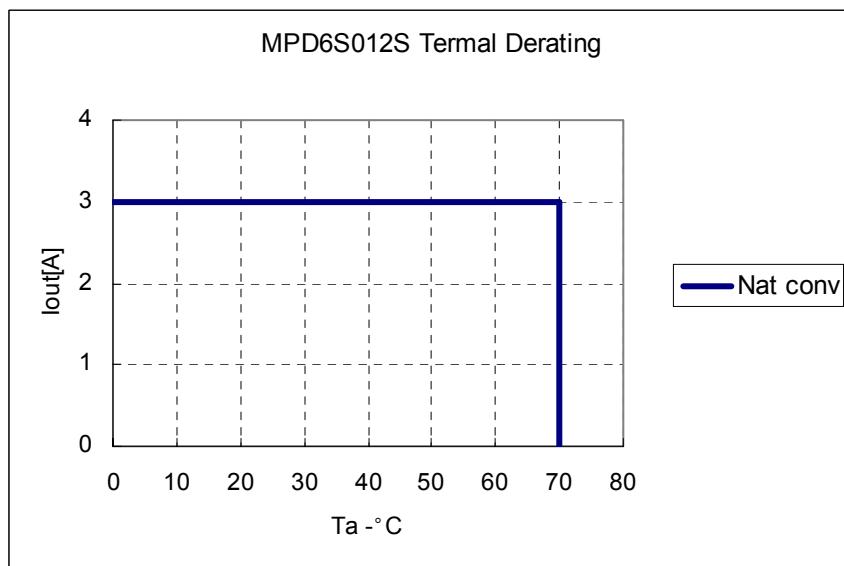
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■ Efficiency Characteristics



■ Thermal Derating



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