



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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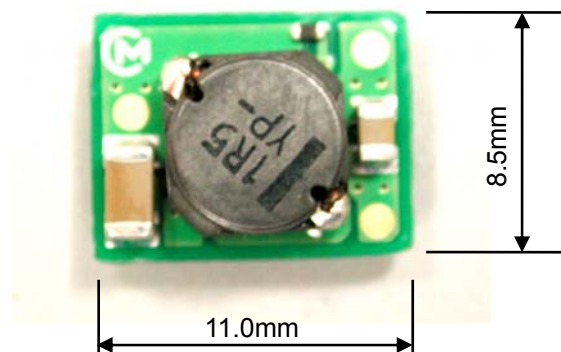


# DC-DC Converter Short Form

## MPDTY201S (Ultra Small POL)

### ■ Features

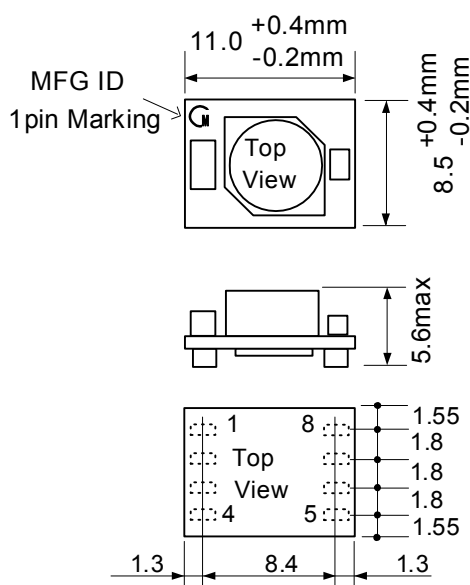
- 3.0-5.5V Wide Input Voltage Range
- 0.8-2.5V Wide Output Voltage Range
- 3Amp. Output Current
- Small Footprint (93.5mm<sup>2</sup>)
- On/Off Control Function
- Short Circuit Protection (Latch-mode Protection)
- UVLO



### ■ GENERAL SPECIFICATIONS (Ta=25°C)

Item	Symbol	Condition	MIN.	TYP.	MAX.	UNIT
Input Voltage	Vin		3.0		5.5	V
Output Voltage	Vout	Vin=5V	0.8		2.5	V
		Vin=3.3V	0.8		1.8	V
Output Current	Iout		0		3	A
Remote ON/OFF	ON/OFF	Module enable (ON)	2.0	Vin		V
		Module disable (OFF)		GND	0.8	V
Ripple Voltage	Vrip	Vin=5V,Vo=2.5V,Io=3A.		20		mVpp
Efficiency	EFF	Vin=5V,Vo=2.5V,Io=3A.		87		%

### ■ DIMENSIONS

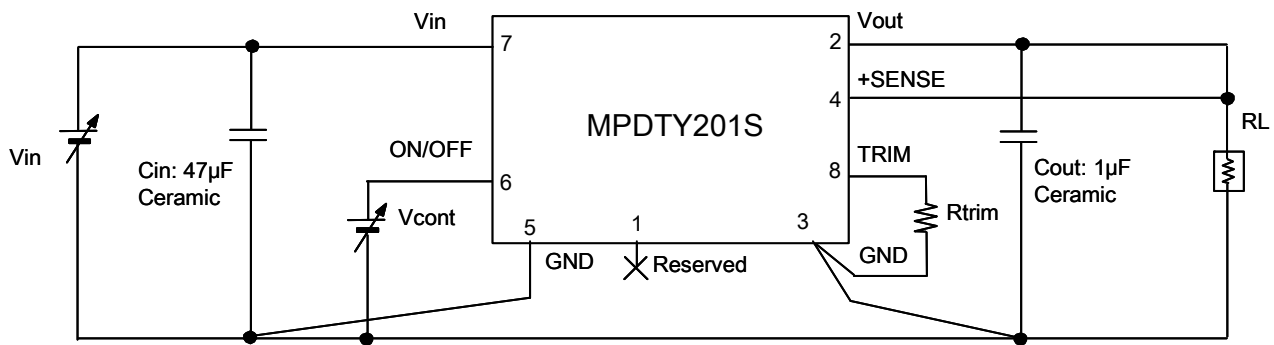


Pin No.	Signal
1.	Reserved
2.	Vout
3.	GND
4.	+SENSE
5.	GND
6.	ON/OFF
7.	Vin
8.	TRIM

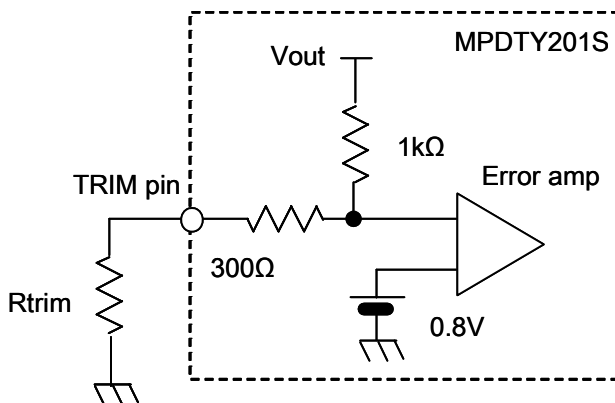
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2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

## ■ TEST CIRCUIT



## ■ OUTPUT VOLTAGE ADJUSTMENT



$$R_{trim} = \frac{800}{V_{out}[V] - 0.8[V]} - 300[\Omega]$$

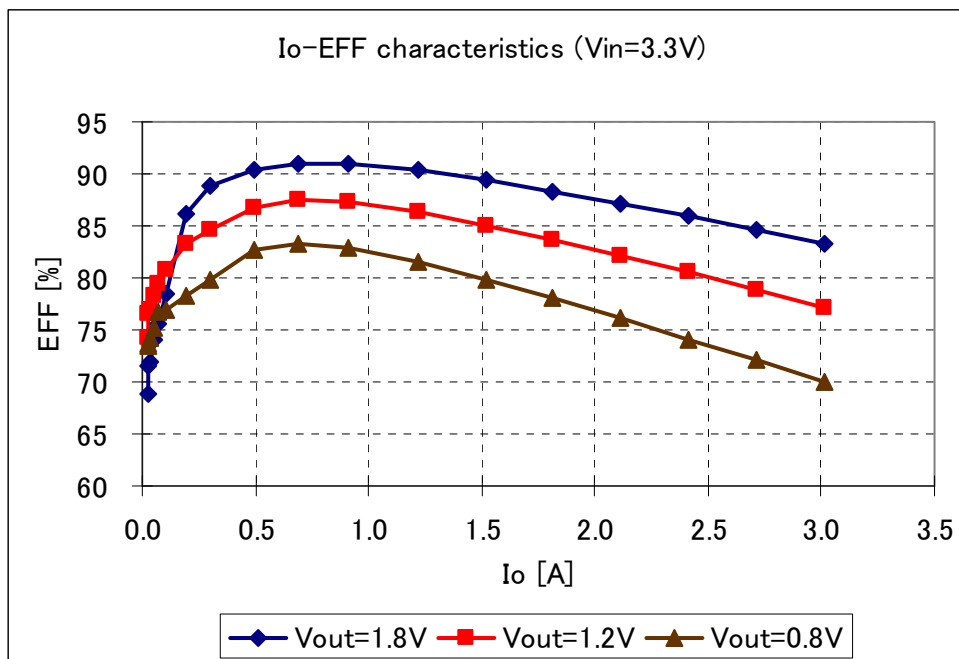
### <RTRIM CALCULATION EXAMPLE>

Vout(V)	Calculated Rtrim(Ω)	Rtrim example(Ω)
2.5	170.6	160+10
1.8	500	470+30
1.5	842.9	820+22
1.2	1700	1.5k+200
1.0	3700	36k+100
0.8	∞	Open

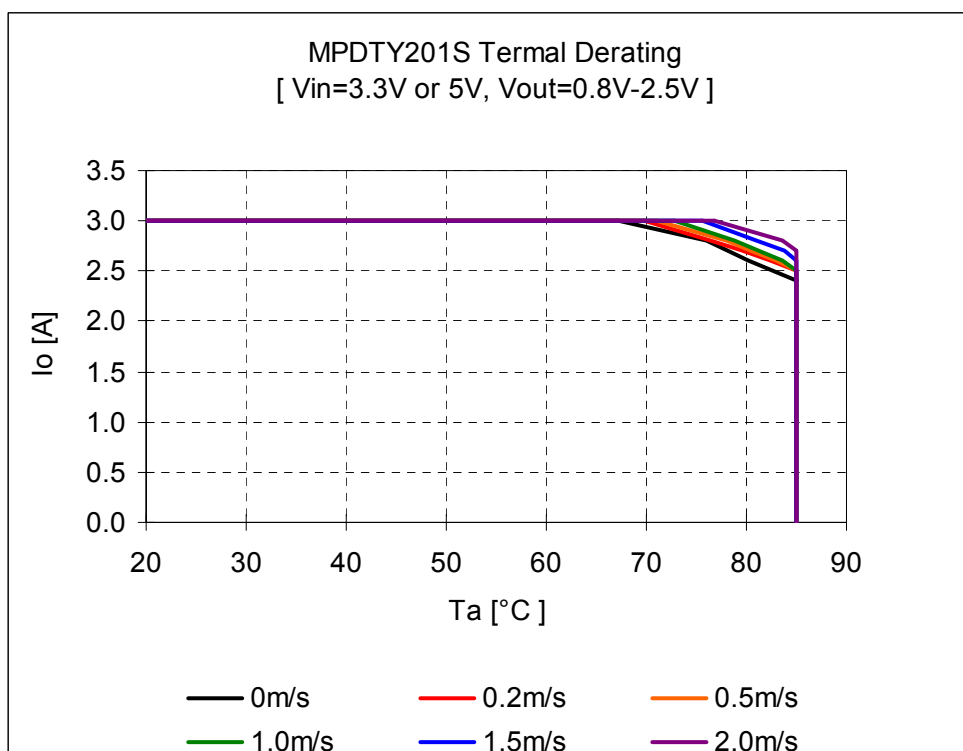
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## ■ EFFICIENCY CHARACTERISTICS



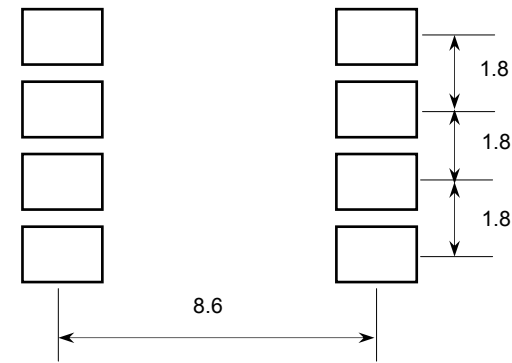
## ■ THERMAL DERATING



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## ■ PCB LAND PATTERN RECOMMENDATION

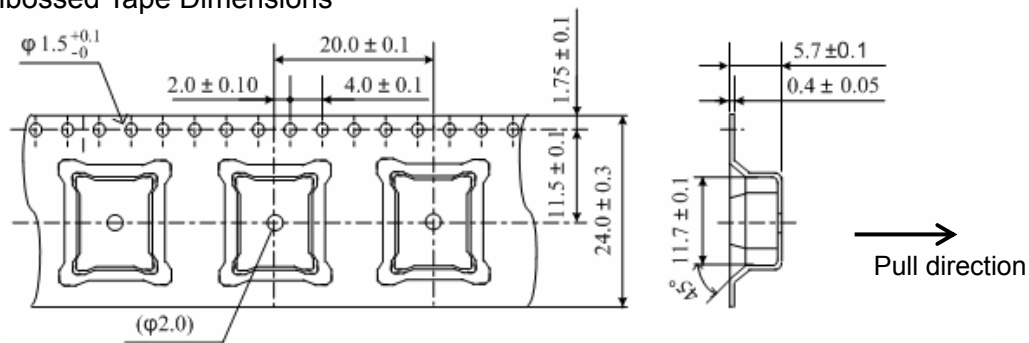


Unit: mm

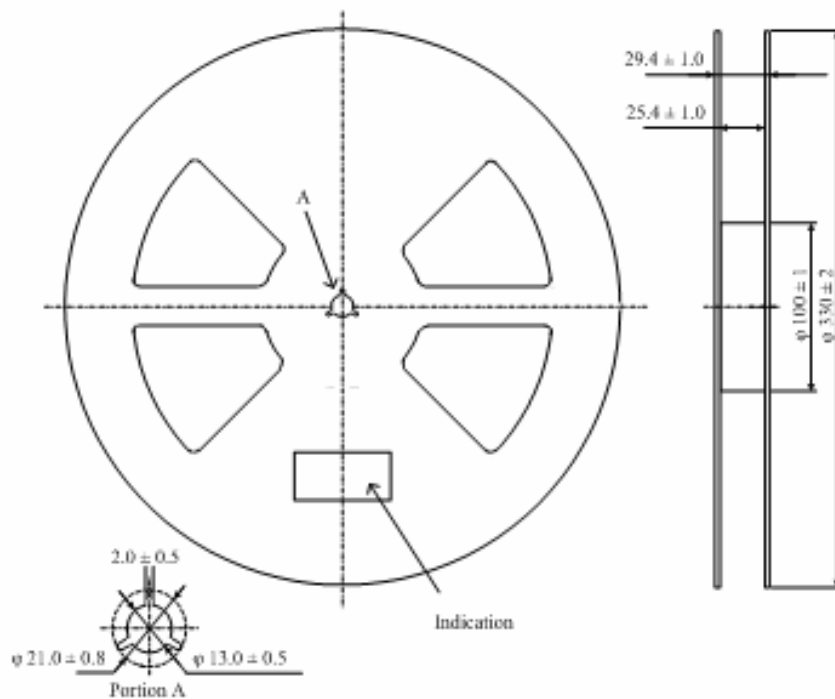
Recommended land size 2.4mm × 1.4mm

## ■ PACKAGING INFORMATION

### Embossed Tape Dimensions



### Reel Dimensions



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