

DC-DC Converter Short Form

MYUSP3R303FMP (Ultra Small POL)

Features

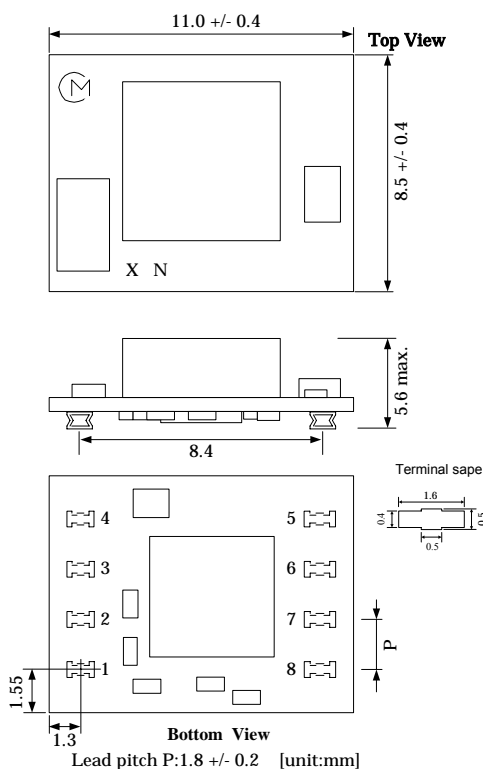
- Ultra small size foot print (8.5mm × 11.0mm)
- Wide input range (3.0V to 5.5V), Wide output range (0.7V to 3.3V)
- Wide operational temperature (-40°C to +85°C)
- High efficiency up to 94%
- ON/OFF / P-GOOD / UVLO / Output voltage sense / Over current function / Over temperature function



GENERAL SPECIFICATIONS (Ta=25°C)

Item	Symbol	Condition	MIN.	TYP.	MAX.	UNIT
Input Voltage	Vin		3.0	-	5.5	V
Output Voltage Adjustable Range	Vout	Vin=3.0V-5.5V Note : Vin Min.=Vout+1.2V at Vout 1.6V	0.7		3.3	V
Output Voltage tolerance	Vo tol	Over Vin, Temperature range	-3		+3	%
Output Current	Iout		0	-	3	A
Ripple Voltage	Vrpl	Vin=5V, Vout=1.2V, Iout=3A, BW=20MHz	-	-	80	mVpp
Efficiency	EFF	Vin=5V, Vout=3.3V, Iout=1A	-	94	-	%
Remote Voltage	Von/off	ON	2.0		Vin	V
		OFF	0		0.8	

DIMENSIONS

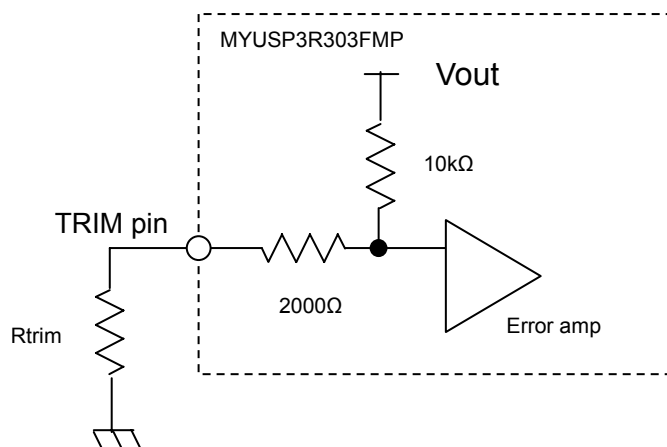


Pin No.	Symbol	Function
1	TRIM	Output voltage adjustment
2	Vout	Output
3,5	GND	GND
4	+SENSE	Output voltage sense
6	ON/OFF	Remote ON/OFF
7	Vin	Input
8	Pgood	Power good output

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.

OUTPUT VOLTAGE ADJUSTMENT

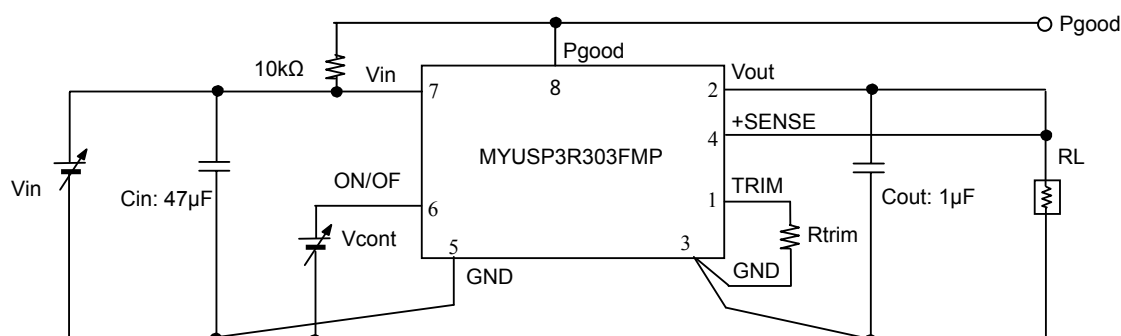


$$R_{trim} = \frac{7000}{V_{out} - 0.7} - 2000 \quad [\Omega]$$

<Rtrim CALCULATION EXAMPLE>

Vout(V)	Calculated Rtrim(Ω)	Rtrim Example(Ω)
3.3	692.3	680 + 12
2.5	1888.9	1500 + 390
1.8	4363.6	3900 + 470
1.5	6750	5600 + 1200
1.2	12000	12000
1.0	21333.3	18000 + 3300 + 33
0.8	68000	68000
0.7	∞	Open

TEST CIRCUIT



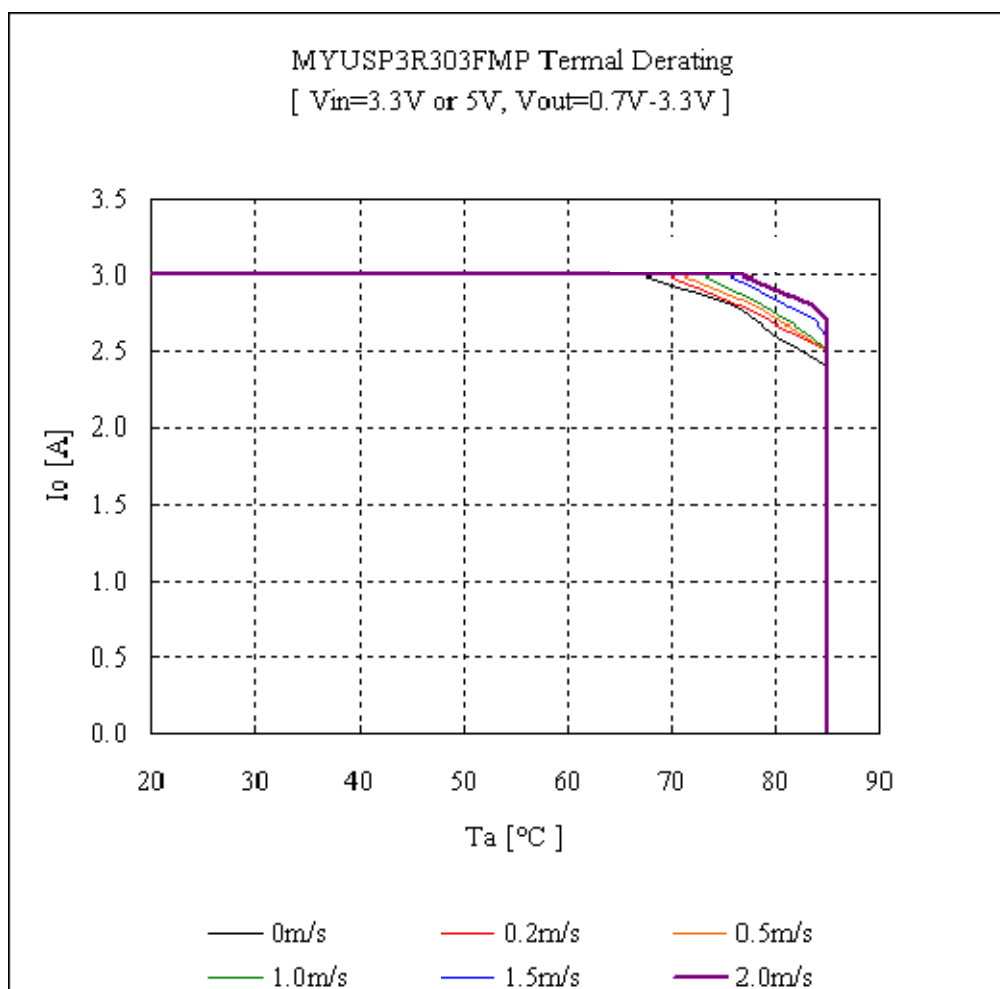
Cin : 47μF/6.3V Ceramic capacitor
 Cout : 1μF/10V Ceramic capacitor

Please make sure to place Cin and Cout nearby input and output terminal of DC-DC converter.

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THERMAL DERATING



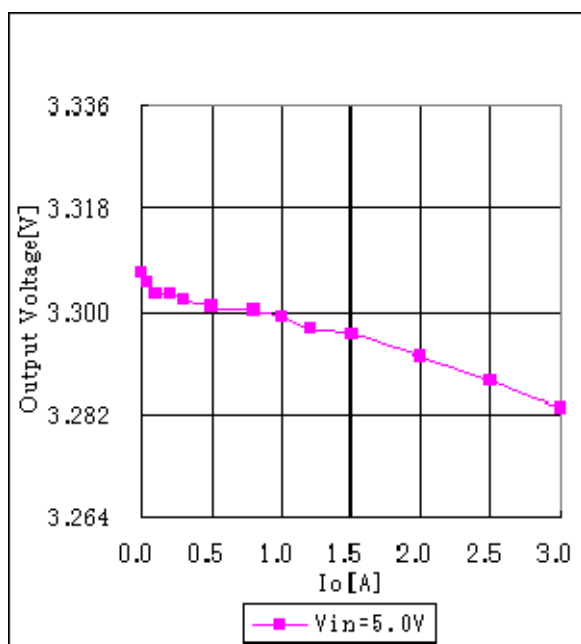
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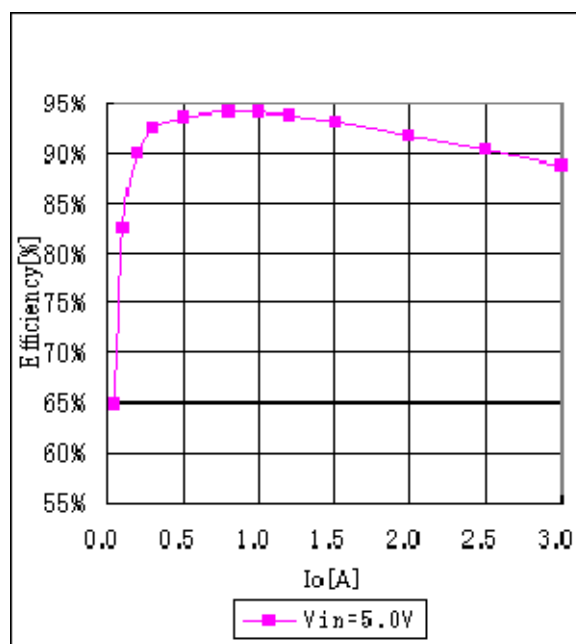
GENERAL CHARACTERISTICS (Ta=25°C)

Vout=3.3V

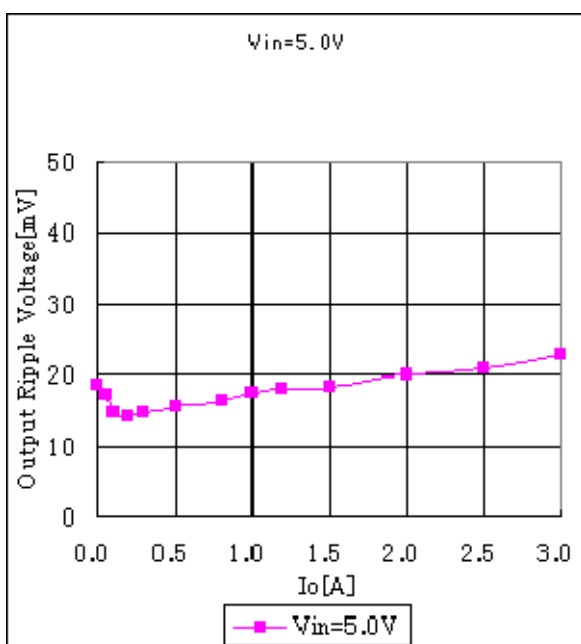
(Cin=GRM32E80J476K, Cout=GRM216B11A105K, Rtrim=12000Ω)



Output Voltage v.s. Output Current



Efficiency v.s. Output Current



Ripple Voltage v.s. Output Current

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