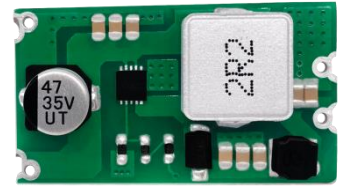


## Product characteristics

- ◇ Step Up Regulator
- ◇ Package outline : SOC
- ◇ Temperature range : -40°C~ +85°C
- ◇ Max Efficiency : 95%
- ◇ Input range : 6 ~ 15VDC
- ◇ application area : industry、Instrumentation、RF communication、track、traffic、Smart Street Lamp、Smart Home、Intelligent switch、Smart Home.



## Selection Guide

Product model	Input Voltage ( VDC )	Output			Temperature range ( °C )	Max capacitive load ( μF )
	Nominal value ( Range value )	Power ( W )	Voltage ( VDC )	current ( mA ) Max./Min		
DM31-10W05S	3.3 - 4.5	10	5	2000	-40°C to +85°C	1500
DM31-12W12S	3.3 - 9.0	12	12	1000	-40°C to +85°C	680

## Input Specifications

Item	Operating Conditions			Min.	Typ.	Max.	Unit
Input current	DM31-10W05S	3.9V(VIN)	5V(Output)	--	2770	--	mA
	DM31-12W12S	5V(VIN)	12V(Output)	--	2520	--	
Ripple & Noise	DM31			10	--	30	mV
starting voltage				--	--	--	VDC
Input low voltage protection				Not.			
Input filter Typ				C			
Recommended External Input Fuse				5A/30V, slow-blow, required			

## Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy	0%-100% load	--	±1	±3	%
Line Regulation	Full load	--	±0.3	±0.5	
Load Regulation	5%~100% Load(balanced load)	--	±1	±2	
Ripple & Noise	20MHz bandwidth (peak-to-peak value)	10	--	30	mVp-p
Temperature Coefficient		--	±0.05	--	%/°C
Over voltage protection		Not.			
Over current protection	DM31-10W05S	2.1	2.2	2.5	A
	DM31-12W12S	1.1	1.2	1.5	
Short circuit protection		Continuous, self-recovery			

## General Specifications

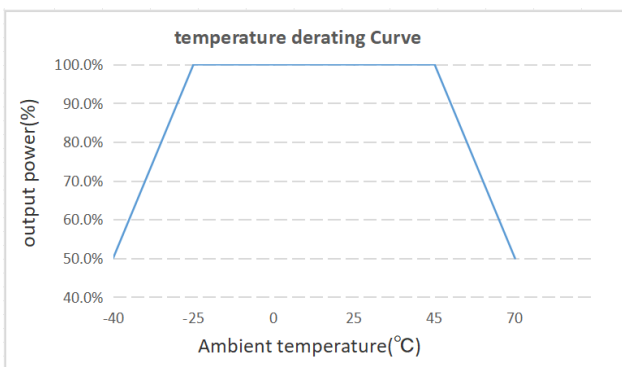
Item	Operating Conditions		Min.	Typ.	Max.
Switching Frequency	DM31	0.8	1	1.2	MHz

operating Temperature		-40	25	+40	°C
storage Temperature		-40	25	+85	°C
storage Humidity		--	--	95	%RH

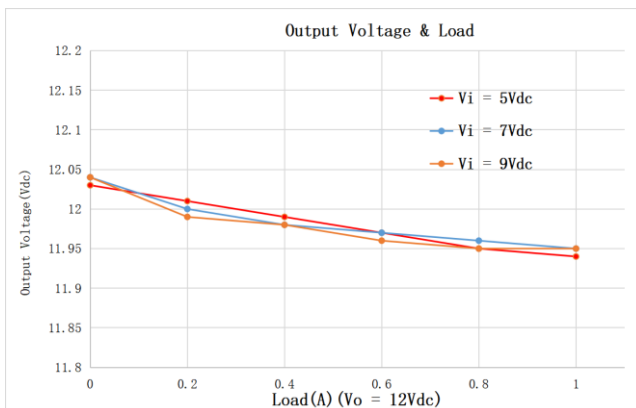
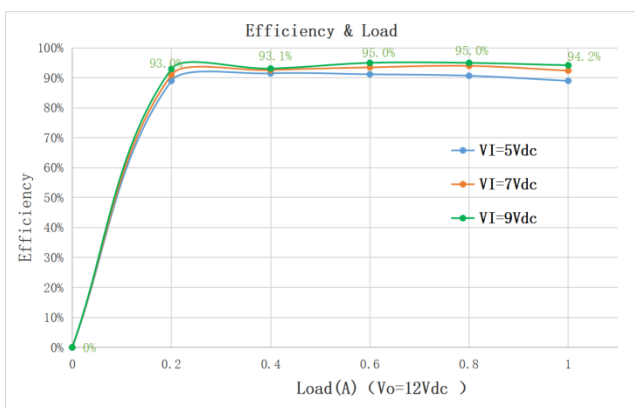
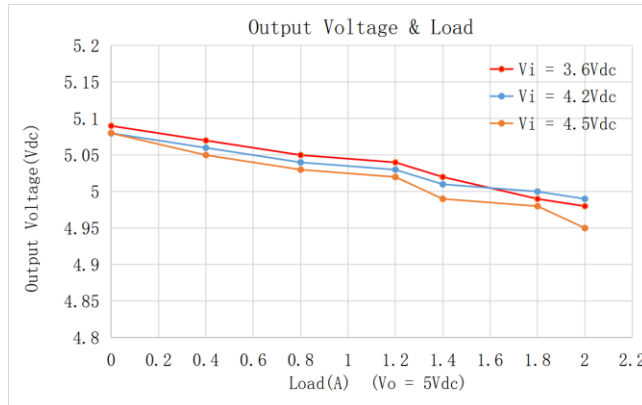
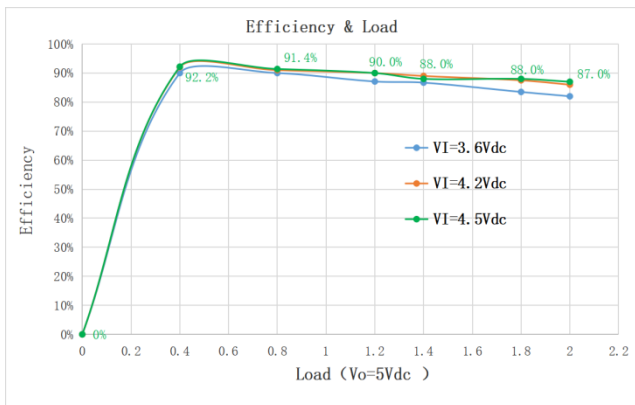
### Mechanical Specifications

Size	31.8*17.8*7.2mm ;
Weight	4.5g
Cooling method	Free air convection

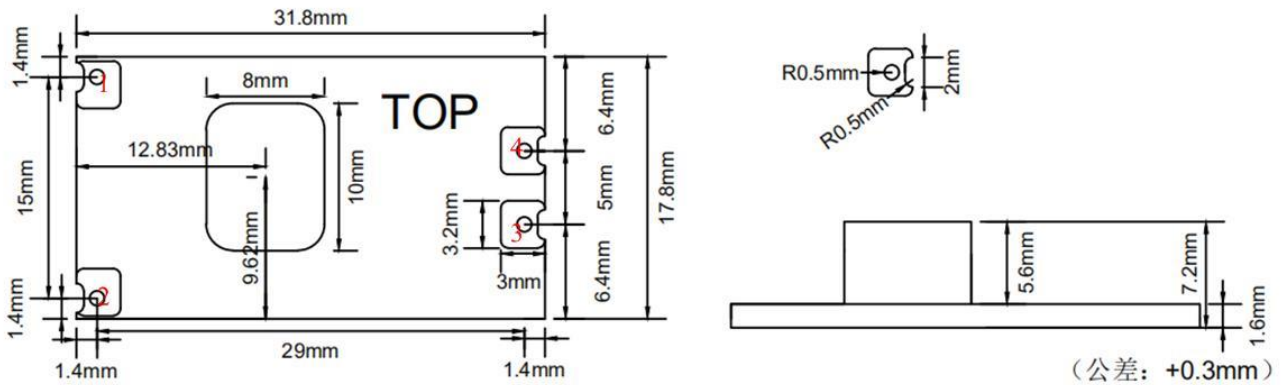
### Product Characteristic Curve



### Product Characteristic Curve



## Dimensions and Recommended Layout



Note:

Pin diameter tolerances:±0.1mm

General tolerances:±0.5mm

Order name	Name	Orientation	Use
1	Vin -	Input	Ground pin.
2	Vin+	input	Supply Input Voltage.
3	Vo +	output	Output power supply positive.
4	Vo -	Input	Ground pin.

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