

FEATURES :

- 4.5V to 32V Input range (2.5V、3.3V output)
- 2.5V、3.3V、5.0V Fixed Output Versions
- 3A Output current
- Up to 93% efficiency for 5V version
- ON/OFF Control
- Permanent short circuit protection
- Non-isolated input and output
- M class temperature range T_c : $-55^{\circ}\text{C}\sim+105^{\circ}\text{C}$



DESCRIPTION :

WK2130 series are high efficiency step-down Switching regulators, which output current less than 3 A and making them ideal for use in military, aerospace and other high reliability applications.

WK2130 series output voltage is configured for 2.5V, 3.3V and 5.0V. For high efficiency, the module change into burst mode automatically when low load. This series module has output short protection, no output when output short, and auto get out when short clear.

ABSOLUTE MAXIMUM RATINGS:

input Voltage: 32V T_{ld} Lead Temperature Range(10s): 300°C
output current 3A T_c Operating Temperature: $-55^{\circ}\text{C}\sim+105^{\circ}\text{C}$ (M) $-40^{\circ}\text{C}\sim85^{\circ}\text{C}$ (I)
T_{st} Storage Temperature Range (M/I) : $-55^{\circ}\text{C}\sim+125^{\circ}\text{C}$

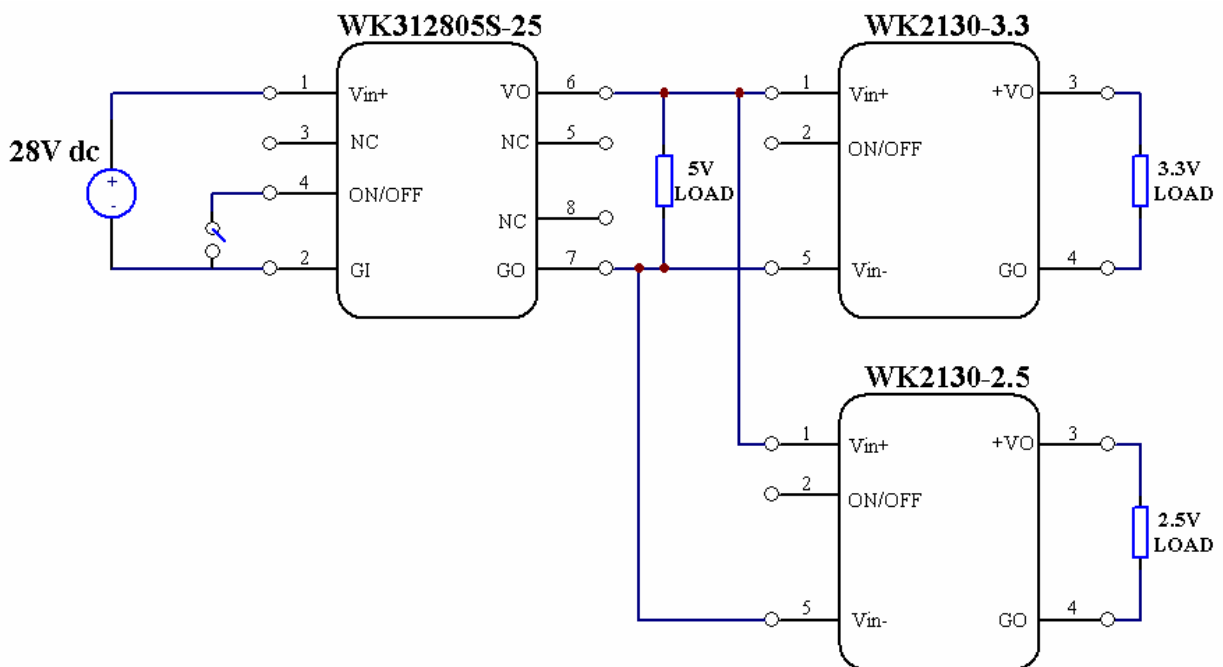
THE ELECTRICAL CHARACTERISTICS:

Parameter	Test Condition ¹⁾	WK2130-2.5			WK2130-3.3			WK2130-5.0			Unit
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Input voltage	-	4.5	-	32	4.5	-	32	6.5	-	32	V
Output voltage	$V_{IN}=V_{MIN}$ $I_O=1A$	2.47	2.50	2.53	3.27	3.30	3.33	4.90	5.00	5.10	V
Output current	$V_{IN}=V_{MIN}$	0	-	3000	0	-	3000	0	-	3000	mA
Line regulation	all Input range Full load	-	-	25	-	-	33	-	-	50	mV
Load regulation	$V_{IN}=V_{MIN}$ No load ~ full load	-	-	50	-	-	66	-	-	100	mV
Quiescent power Dissipation	$V_{IN}=12V_{DC}$ no load	-	10	-	-	10	-	-	10	-	mW
Efficiency	$V_{IN}=V_{MIN}$ $I_O=1A$	85	-	-	90	-	-	93	-	-	%
Insulation resistance	$\geq 100M\Omega @ 500V_{DC}$ (input -case; output-case)										

Note:1) Unless otherwise specified, $T_A=25^\circ C$, input voltage was V_{IN} , 100% load.

APPLICATION NOTE:

- Typical connection shown as below:



Short protection

The short circuit protection device protects the module against short circuit of any duration and restores the module to normal operation when the short circuit is removed. It operates in “hiccup” mode by testing periodically if an overload is applied.

ON/OFF

The control pin 2 can be used for applications requiring on/off operation. pin 2 no connection enable converter, pin 2 pulled low ,disable converter.

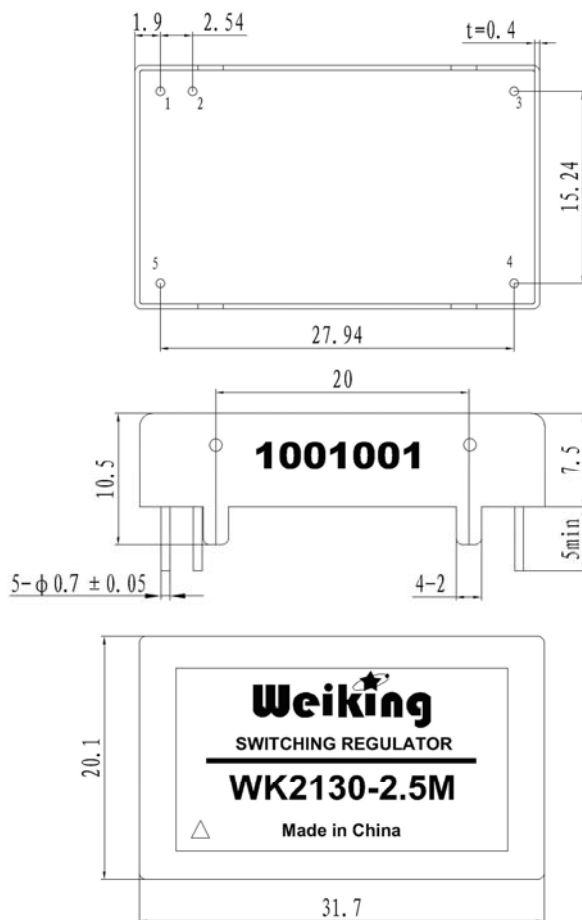
ENVIRONMENTAL SCREENING:

Class	NO.	Test Items	Methods	Request	Condition
I	1	Burn-in	---	100%	T _C =85°C 48h
M	1	Environmental Stress Screening (ESS)	MIL-STD-2164	100%	-
	2	Burn-in	---	100%	T _C =105°C 168h

DIMENSIONS & CONNECTIONS:

Volume: 8cm³ Weight: ≤15g Material: 10# Steel

以 WK2130-2.5M 为例:



PIN	PIN FUNCTIONS
1	V _{in} +
2	On/Off
3	V _o +
4	G _o
5	V _{in} -

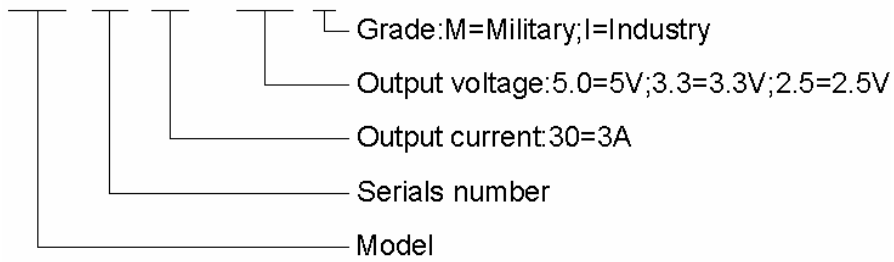
UNITS: mm

TOLERANCE: ± 0.1mm

ORDERING INFORMATION:

MODEL NO SPECIFICATION:

WK 21 30 - 3.3 M



MARK SPECIFICATION:

Serials Number: 1001001, which indicates this product has been manufactured in the 1th week of 2010, and the sequence number is 001.