JW1123

2A, 28V Synchronous Buck LED Driver

DESCRIPTION

The JW®1123 is a current mode monolithic buck LED driver. Operating with an input range of 4.5V-28V, JW1123 delivers 2A of continuous output current with two integrated N-Channel MOSFETs. The internal synchronous power switches provide high efficiency without the use of an external Schottky diode. It integrates PWM signal to analogy dimming mode to achieve dimmable LED lighting application.

The JW1123 guarantees robustness with LED short protection, thermal protection, start-up current run-away protection, input under voltage lockout.

The JW1123 is available in 6-pin SOT23 packages, which provide a compact solution with minimal external components.

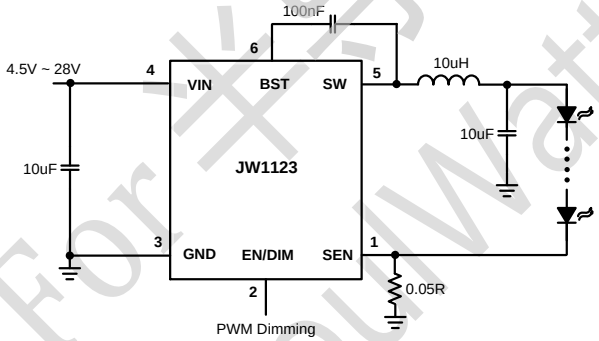
FEATURES

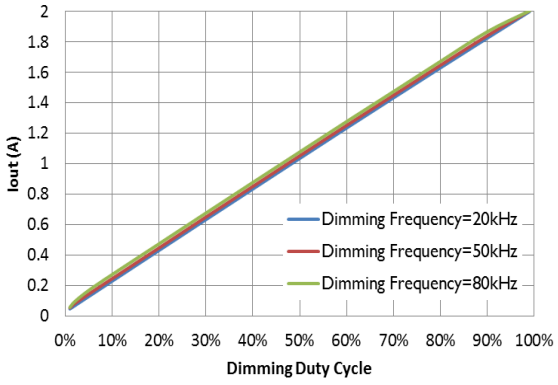
- 4.5V to 28V Operating Input Range
  2A Output Current
- Up to 94% Efficiency
  @ Vin=12V, Vout=6V, ILED=2A
- 600kHz Switching Frequency
- Input Under Voltage Lockout
- Start-up Current Run-away Protection
- LED Short Protection
- Thermal Protection
- Available in SOT23-6 Package

APPLICATIONS

- IP camera and CCD camera
- Flash light
- Display cabinet lamp
- General LED lighting

TYPICAL APPLICATION

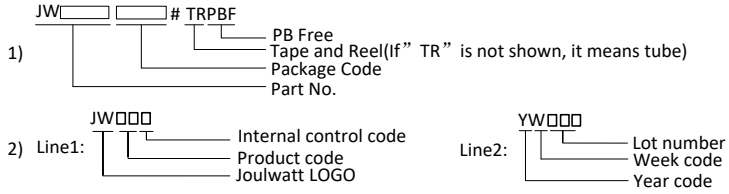




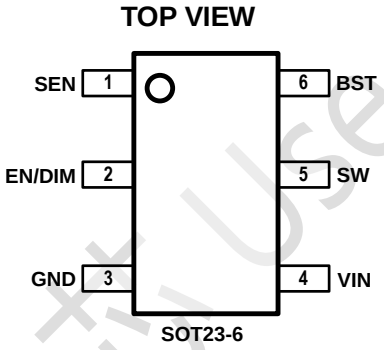
ORDER INFORMATION

DEVICE[1)]	PACKAGE	TOP MARKING[2)]
JW1123SOTB#TRPBF	SOT23-6	JWDR□ YW□□□

Note：



PIN CONFIGURATION



PIN DESCRIPTION

Pin SOT23-6	Name	Description
1	SEN	LED current sense pin.
2	EN/DIM	Drive the high level voltage of EN/DIM pin above 1.5V to enable the LED driver when dimming frequency is 50kHz and duty cycle≥5%. The recommended lowest value of V_{ENH} under different dimming frequency and duty cycle is shown in Figure 4 and 5. When a 20kHz ~ 80kHz is applied to EN/DIM pin, the internal feedback reference is proportional to the PWM input duty cycle.
3	GND	Ground.
4	VIN	Input voltage pin. VIN supplies power to the IC. Connect a 4.5V to 28V supply to VIN and bypass VIN to GND with a suitably large capacitor to eliminate noise on the input to the IC.
5	SW	SW is the switching node that supplies power to the output. Connect the output LC filter from SW to the output load.
6	BST	Bootstrap pin for top switch. A 0.1μF or larger capacitor should be connected between this pin and the SW pin to supply current to the top switch and top switch driver.

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