BP5001

0/1~10V, Resistor Dimming Interface Controller

Description

BP5001 is a PWM signal generator that works with 0/1-10V signal or the voltage signal generated by the resistor to ground from DIM pin. The PWM signal can be used directly to control the LED drive, or through an optocoupler to provide isolated dimming control from the secondary to the primary.

With BP5001, the PWM frequency can be set flexibly via an external capacitor connected from FSET pin to ground.

BP5001 provides ISET pin to set the sourcing current of DIM pin, to get a good compatibility with different passive 0/1-10V dimmers.
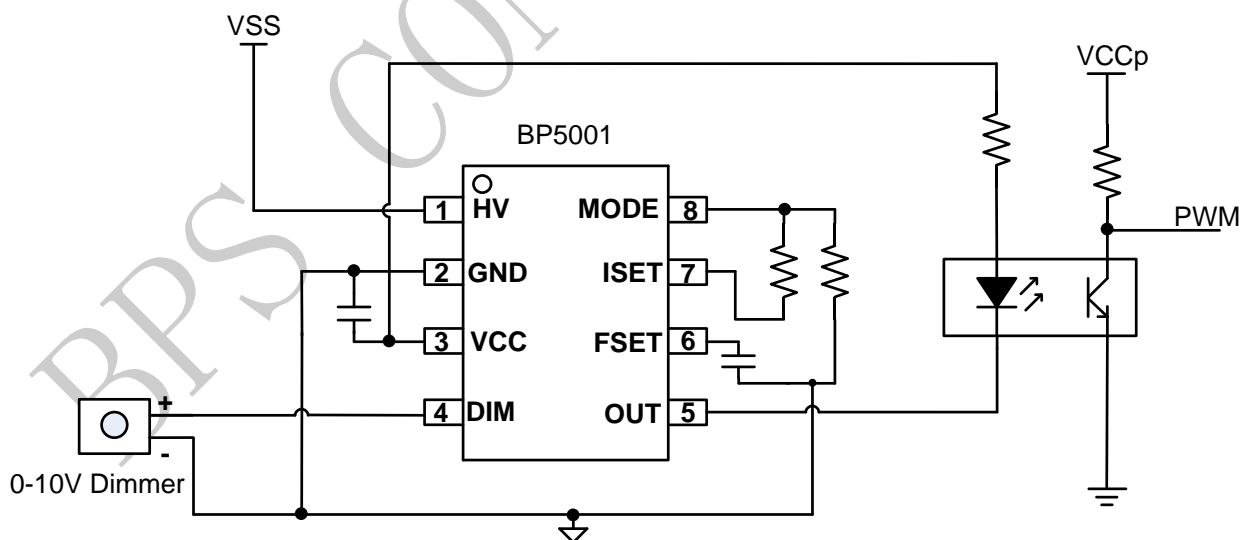
BP5001 is packaged in SOP-8.

Features

- Compatible with 0/1-10V, Resister Dimmer
- Integrated with 500V High Voltage JFET
- Adjustable sourcing current for 0/1-10V dimmer
- Output PWM frequency adjustable
- Adjustable dimming voltage corresponding to maximum light output
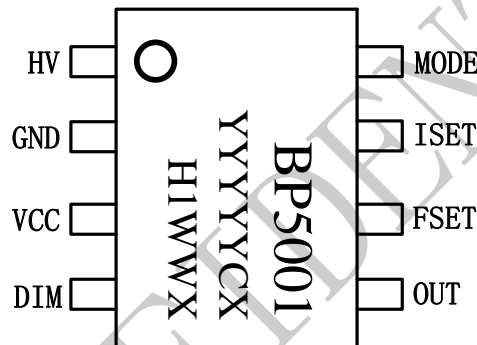- Integrated with OTP
- SOP-8 package

Application

- Built-in / External LED Driver
- High-performance fixture

Typical Application

Fig 1. BP5001 Typical application circuit

Ordering Information

Part Number	Package	Operating Temperature	Packing Method	Marking
BP5001	SOP-8	-40 ℃ to 105 ℃	4,000 Piece/Reel	BP5001 YYYYYCX H1WWX

Pin Configuration

YYYYY：Lot Number
C：Supplier
WW：Week
X：Suffix

Fig.2 Pin Configuration

Pin Definition

Pin No.	Name	Description
1	HV	High Voltage Input Pin.
2	GND	Grounded.
3	VCC	Power Supply Pin.
4	DIM	Dimming Signal Input Pin. Connect 0/1-10V Dimmer or Resistor.
5	OUT	PWM Output Pin.
6	FSET	PWM Frequency Setting Pin.
7	ISET	Used to set the sourcing current of DIM Pin.
8	MODE	Used to set the DIM voltage when PWM duty reach 100%.

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