

## 60V, 800mA 3-Channel Constant Current LED Driver

### General Description

PS4506 is a 3-channel LED driver with constant current regulator. PS4506 offers excellent temperature stability and output current accuracy with a wide input voltage from 7V to 40V and temperature range. PS4506 implements various fixed output current versions without external current setting resistors and thus creates a simple solution for constant current LED driver. Besides, for the thermal management in LED, PS4506 is featured a current ramp down function from 125°C to 145°C of junction temperature. Moreover, taking reliability into consideration, the maximum voltage rating on VDDA/B/C and OUTA/B/C is designed as 60V ability to handle high voltage pulse suddenly. 3-channel functions are integrated in PSOP-8 package.

### Features

- 3-channel total output current: 800mA
  - Channel OUTA: 200mA
  - Channel OUTB: 200mA
  - Channel OUTC: 400mA
- ±4.5% LED current accuracy
- Wide input voltage range from 7V to 40V
- 60V breakdown voltage
- Thermal protection: Current ramp down

### Applications

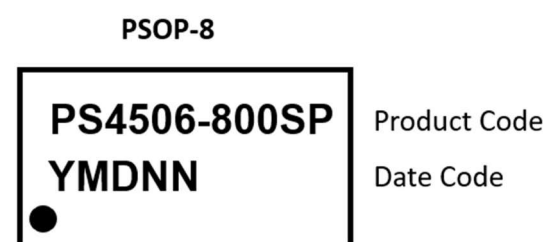
- DC General Lighting
- Constant current COB light engine

### Ordering Information

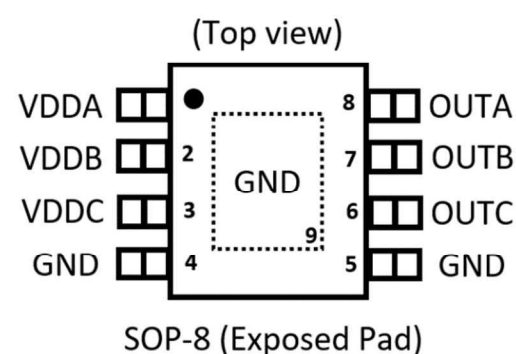
PS4506-□□□SP  
 SP: PSOP-8 (Exposed Pad)  
 800: IOUT= 800mA

**Note:** Green Product (RoHS compliant)  
 For meeting the world-wide customer requirements for environmentally friendly products and government regulations, the device is available as a green product. Green products are RoHS-Compliant (i.e Pb-free finish on leads and suitable for Pb-free soldering according to IPC/JEDEC J-STD-020).

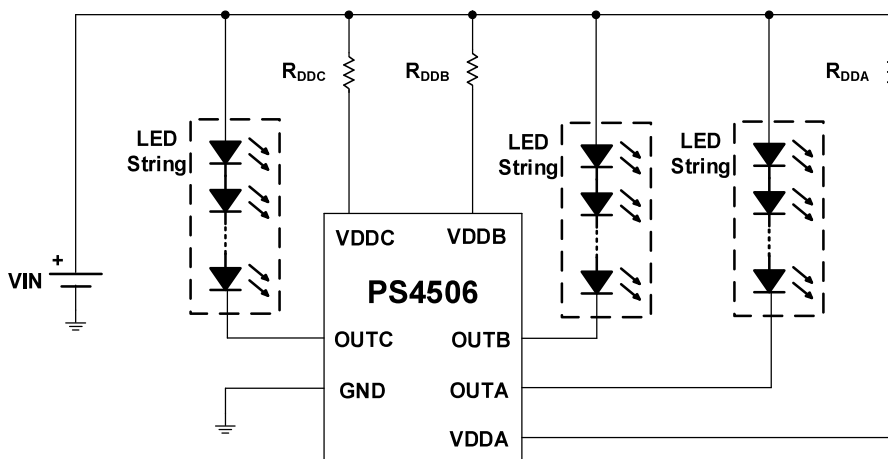
### Marking Information



### Pin Configuration



Simplified Application Circuit



Suggestion		
V <sub>IN</sub>	R <sub>DDA</sub> / R <sub>DDB</sub>	R <sub>DDC</sub>
12V	20KΩ	10KΩ
24V	100KΩ	50KΩ
36V	180KΩ	90KΩ
48V	260KΩ	130KΩ

Pin Definitions and Functions

Pin	Name	I/O <sup>(1)</sup>	Description
1	VDDA	I	Supply voltage to OUTA
2	VDDB	I	Supply voltage to OUTB
3	VDDC	I	Supply voltage to OUTC
4	GND	--	Connect to anode of LED or power ground
5	GND	--	Connect to anode of LED or power ground
6	OUTC	I	Output current regulated pin. Output current flows through this pin and regulated. For low-side LED string application, connect the LED cathode terminal to the "OUTC" terminal.
7	OUTB	I	Output current regulated pin. Output current flows through this pin and regulated. For low-side LED string application, connect the LED cathode terminal to the "OUTB" terminal.
8	OUTA	I	Output current regulated pin. Output current flows through this pin and regulated. For low-side LED string application, connect the LED cathode terminal to the "OUTA" terminal.

(1) I= Input, O= Output, --= Other