



Preliminary

OCP8120

1.6A Power LED Driver

ORIENT-CHIP

General Description

OCP8120 is a PWM power LED driver IC. The switch current from few milliamps up to 1.6A. It allows high brightness power LED operating at high efficiency from 4V dc to 40V dc. Up to 200 KHz external controlled operation frequency. External resistor controlled the maximum output current to single LED or a LED string.

Features

- Only 5 external components required
- Output switch current up to 1.6A
- 4V~40V wide operation voltage range
- High efficiency
- ESD protection HBM 2KV
- TO252-5L pin power packages

Application

- DC/DC LED driver
- Automotive
- Lighting

Typical Application Circuit

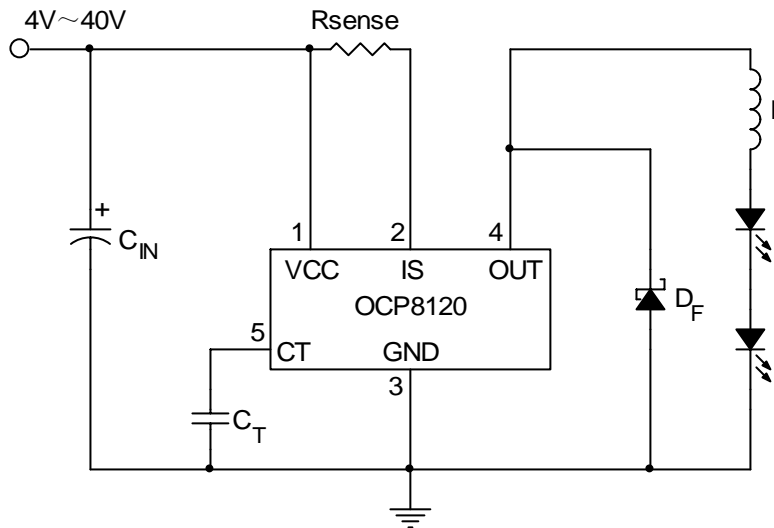


Fig.1

Absolute Maximum Ratings

Input Voltage, VCC	-0.3V to 40V
Output Voltage, OUT	-0.3V to 40V
Maximum Junction Temperature, T _J	150°C
Storage Temperature Range	-40°C to 150°C
Lead Temperature (soldering, 10 sec.)	260°C

Note: Exceeding these ratings could cause damage to the device. All voltages are with respect to Ground. Currents are positive into, negative out of the specified terminal.

Electrical Characteristics (VCC=5V, Ta=25°C, Unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	Apply Pin
Supply Current	I _{CC}	VCC=4~40V			4	mA	VCC
Output Drop-out Voltage	V _{DP}	I _{OUT} =1A, V _{IS} =V _{OUT}		1	1.3	V	OUT
Output Leakage Current	I _{LK}	V _{IS} =V _{OUT} =40V		0.01	10	μA	OUT
Current Sense Voltage	V _{CS}	VCC-V _{IS}	270	300	330	mV	IS
Maximum duty cycle	T _{DC}	V _{IS} =VCC		85		%	CT
CT Charge Current	I _{CH}			35		μA	CT