

## PWM Generator

### 1 Description

The iW338 is a generic PWM signal generator IC to convert a 0-0.6V analog voltage to an inverted 0%-100% PWM duty cycle. The PWM frequency range is set by an external capacitor and is programmable from 100Hz to 50kHz. The output of the iW338 is a 5V PWM driver capable of driving an external optocoupler for isolated applications or a MOSFET for non-isolated applications.

### 2 Features

- 8V to 60V DC input voltage
- 1% PWM duty cycle tolerance
- Programmable PWM frequency range: 100Hz to 50kHz
- Shutdown pin to minimize standby power
- SOIC-8 package

### 3 Applications

- Generic PWM duty cycle generator
- Signal feedback across isolation barrier

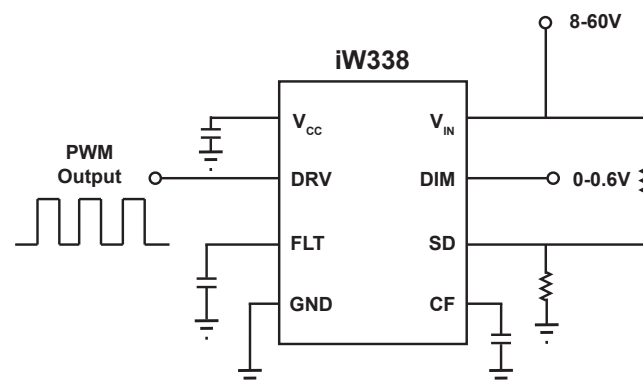


Figure 3.1 : iW338 Typical Application Circuit

## PWM Generator

### 4 Pinout Description

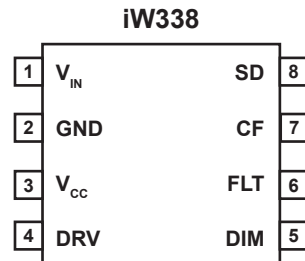


Figure 4.1 : 8-Lead SOIC Package

Pin Number	Pin Name	Type	Pin Description
1	V <sub>IN</sub>	Analog Input	Power supply up to 60V.
2	GND	Ground	Ground.
3	V <sub>CC</sub>	Power	Power supply for control logic.
4	DRV	Output	PWM driver. The DRV output changes duty cycle linearly and inversely proportional to the input of the DIM pin. 100% duty cycle output on the DRV pin corresponds to 0V on the DIM pin and 0% duty cycle corresponds to > 0.6V on the DIM pin.
5	DIM	Analog Input	Dimming interface connection.
6	FLT	Analog Input	Dimming signal filter capacitor connection.
7	CF	Analog Input	Sets the PWM output frequency: 100Hz to 50kHz.
8	SD	Analog Input	Shuts down the IC if voltage is over 2V.

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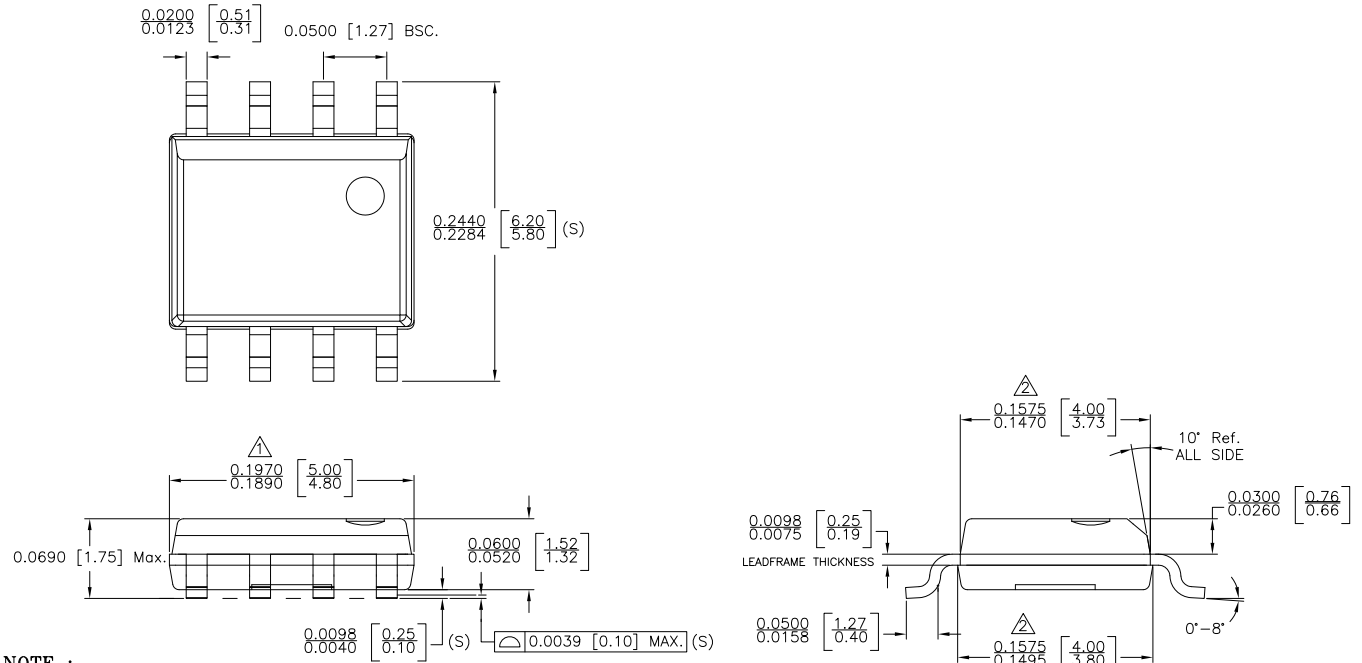
### 5 Absolute Maximum Ratings

Absolute maximum ratings are the parameter values or ranges which can cause permanent damage if exceeded.

Parameter	Symbol	Value	Units
$V_{IN}$ to GND	$V_{CC}$	-0.3 to 65	V
DIM to GND		-0.3 to 5	V
DRV, FLT, CF, SD to GND		-0.3 to 5	V
ESD rating per JEDEC JESD22-A114		$\pm 2000$	V
Storage temperature range		-65 to +150	°C
Maximum junction temperature		150	°C

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6 Physical Dimensions



NOTE :

- △ DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS AND GATE BURRS SHALL NOT EXCEED .006 INCH PER SIDE.
- △ DOES NOT INCLUDE INTER-LEAD FLASH OR PROTRUSIONS. INTER-LEAD FLASH AND PROTRUSIONS SHALL NOT EXCEED .010 INCH PER SIDE.
- 3. THIS PART IS COMPLIANT WITH JEDEC SPECIFICATION MS-012.
- 4. LEAD SPAN/STAND OFF HEIGHT/COPLANARITY ARE CONSIDERED AS SPECIAL CHARACTERISTIC(S)
- 5. CONTROLLING DIMENSIONS IN INCHES. [mm]

STATUS: RELEASED	SCALE: DO NOT SCALE
TERMINAL FINISH: 100% Sn or NiPdAu (PPF)	
TITLE: 8 SOIC PACKAGE OUTLINE	
REV: A	DATE: 02-MAR-2015

Figure 6.1 : Physical Dimensions of 8-Pin SOIC Package

7 Ordering Information

Part Number	Options	Package	Description
iW338-10		SOIC-8	Tape & Reel <sup>1</sup>

Note 1: Tape and reel packing quantity is 2,500/reel. Minimum packing quantity is 2,500.

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