

<b>FEATURES</b>	<b>DESCRIPTION</b>
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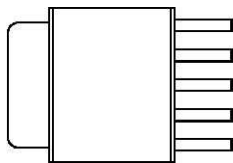
Operation voltage range: 4.0V to 40V  
Output current up to 1.5A  
5 external components required  
High efficiency

The CMD735 series is a power LED driver which has the capability to drive an output current from a few mA up to 1.5A. By having the PWM feature, the CMD735 series will operate with high efficiency in a wide input range from 4V to 40V and up to 200KHz operating frequency by external component. The CMD735 series is ideal to the applications for high power LED related end products.

<b>APPLICATIONS</b>
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LED lighting devices  
Automobile  
DC to DC

<b>PACKAGE/ORDER INFORMATION</b>
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- 5. F<sub>SET</sub>
- 4. Out
- 3. GND
- 2. I<sub>SENSE</sub>
- 1. V<sub>CC</sub>

5Pin Plastic TO252  
Surface Mount (Top  
View)

Order Part Number  
CMD735DLT

## ABSOLUTE MAXIMUM RATINGS (Note 1)

Power Supply Voltage	-0.3V – 40V
Output Voltage	-0.3V – 40V
Output Current	1.5A
Storage Temperature Range	-65°C to +150°C
Operating Junction Temperature	+150°C
Lead Temperature (soldering, 10 seconds)	260°C

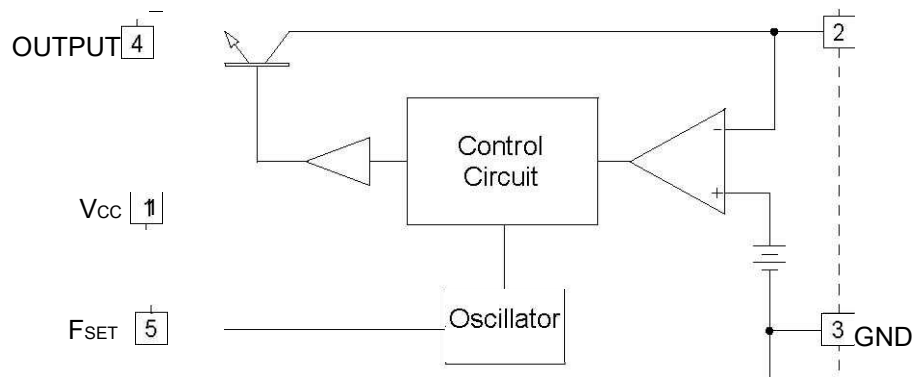
Note 1: Exceeding these ratings could cause damage to the device. All voltages are with respect to ground. Currents are positive into, negative out of the specified terminal.

## POWER DISSIPATION TABLE

Package	$\theta_{JA}$ (°C/W)	Derating factor (mW/°C) $T_A \geq 25$ °C	$T_A \leq 25$ °C Power rating (mW)	$T_A = 70$ °C Power rating (mW)	$T_A = 85$ °C Power rating (mW)
5L TO252	80	12.5	1,560	1,000	812

1.  $\theta_{JA}$ : Thermal Resistance Junction to Ambient,  $D_F$ : Derating factor,  $P_o$ : Power consumption. Junction Temperature Calculation:  $T_J = T_A + (P_D \times \theta_{JA})$ ,  $P_o = D_F \times (T_J - T_A)$  The  $\theta_{JA}$  numbers are guidelines for the thermal performance of the device/PCboard system. All of the above assume no ambient airflow.

## BLOCK DIAGRAM

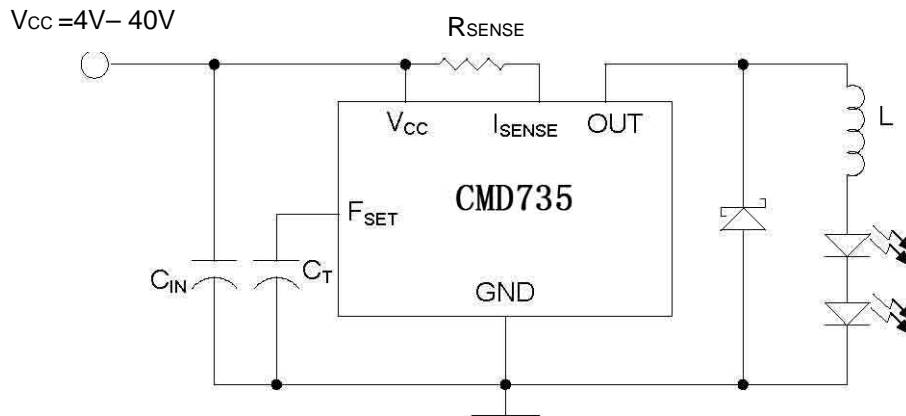


# CMD735

## RECOMMENDED OPERATING CONDITIONS

Package	$\theta_{JA}$ ( $^{\circ}\text{C}/\text{W}$ )	Derating factor ( mW/ $^{\circ}\text{C}$ ) $T_A \geq 25^{\circ}\text{C}$	$T_A \leq 25^{\circ}\text{C}$ Power rating (mW)	$T_A = 70^{\circ}\text{C}$ Power rating (mW)	$T_A = 85^{\circ}\text{C}$ Power rating (mW)
5L TO252	80	12.5	1,560	1,000	812

## TYPICAL APPLICATIONS



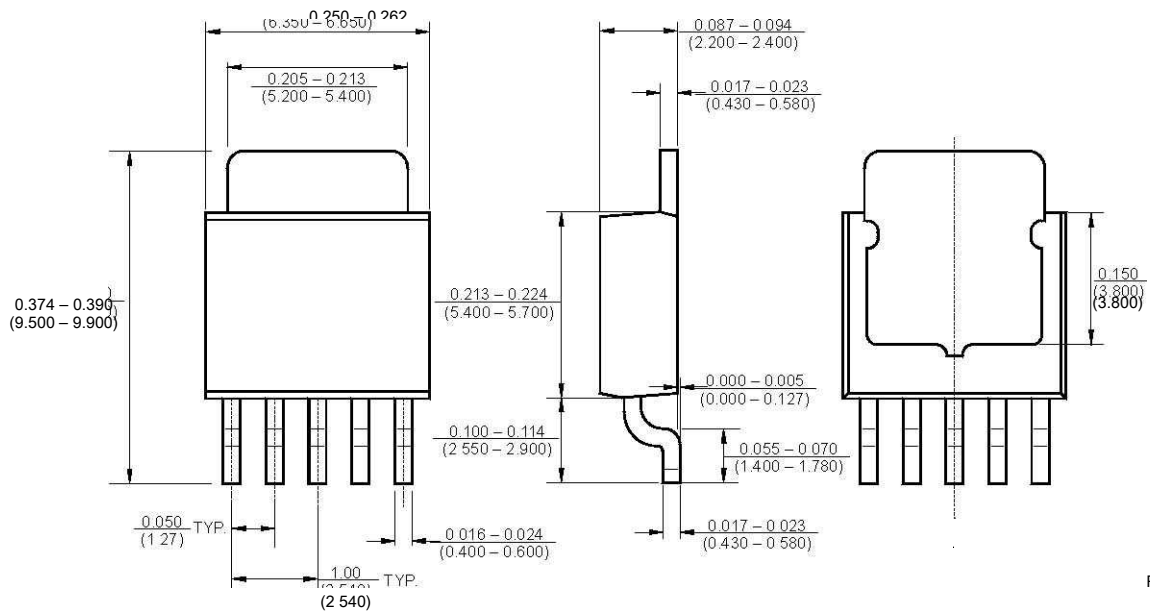
## ELECTRICAL CHARACTERISTICS

Unless otherwise specified, these specifications apply  $V_{CC} = 5.0\text{ V}$ ,  $T_A = 25^{\circ}\text{C}$

Package	$\theta_{JA}$ ( $^{\circ}\text{C}/\text{W}$ )	Derating factor ( mW/ $^{\circ}\text{C}$ ) $T_A \geq 25^{\circ}\text{C}$	$T_A \leq 25^{\circ}\text{C}$ Power rating (mW)	$T_A = 70^{\circ}\text{C}$ Power rating (mW)	$T_A = 85^{\circ}\text{C}$ Power rating (mW)
5L TO252	80	12.5	1,560	1,000	812
Parameter	Symbol	Min	Typ	Max	Units
Input Voltage	$V_{CC}$	4		40	V
Output Current	$I_{OUT}$			1.5	A
Operating freeair temperature range	$T_a$	40		85	$^{\circ}\text{C}$

## PACKAGE DESCRIPTION Dimensions in inches (millimeters) unless otherwise specified

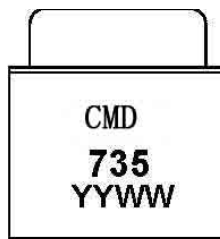
5L TO 252



REF

## MARKING DIAGRAM

5L TO 252



YY = Year, WW = Working Week