

DIO8232

Adaptive 100/120Hz Current Ripple Remover

Max LED Current $\leq 1A$

Features

- Wide input voltage range from 10V up to 60V
- Internal 60V power MOSFET
- Adaptive 100/120Hz current ripple remover for dimmable LED luminaries with wide input current range from 0.1A up to 1A
- LED voltage low to 0.4V when LED current is 1A
- Multiple protection features:
 - ✧ Reliable LED voltage limit
 - ✧ Reliable LED current limit
 - ✧ Reliable Short LED Protection (SLP)
 - ✧ Hot-plug protection
 - ✧ Over Temperature Protection (OTP)
- TO252-5 package

Descriptions

DIO8232 is designed to eliminate the 100/120Hz current ripple on AC/DC power for LED driver, especially single stage LED driver.

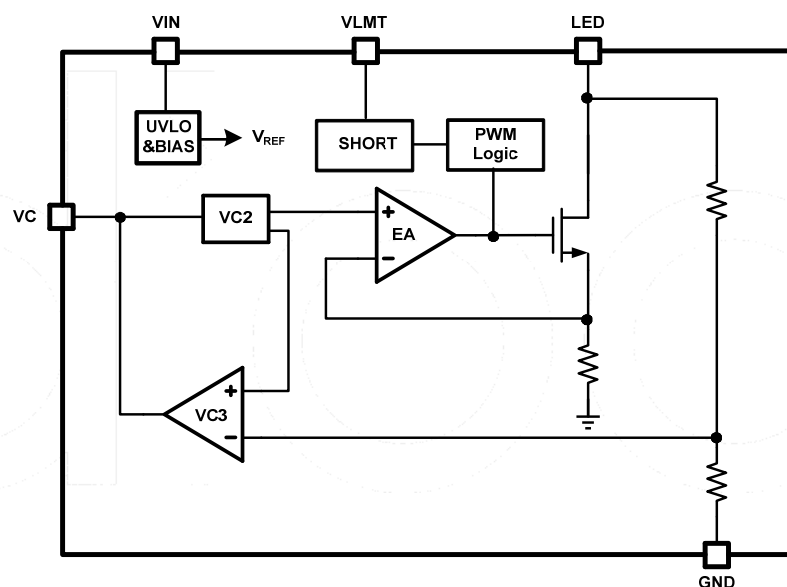
Reliable LED voltage limit function could achieve trade-off between current ripple ratio and power dissipation on chip. DIO8232 provides short protection and hot-plug protection. Reliable LED current limit function sets the maximum LED current at 1.5A.

DIO8232 provides over thermal protection. When the OTP is triggered, the internal MOSFET shuts down until the temperature decreases to 120°C

Applications

- LED lighting

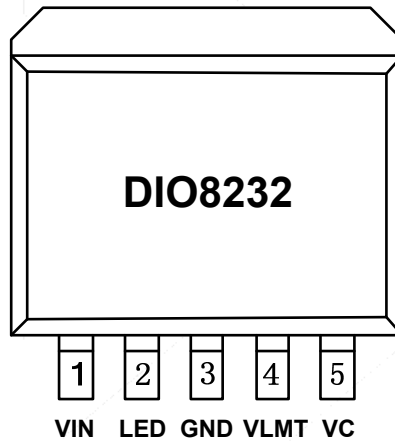
Block Diagram



Ordering Information

Order Part Number	Top Marking		T _A	Package	
DIO8232TA5	DIO8232	Green	-40 to +150°C	TO252-5	Tape & Reel, 2500

Pin Assignments



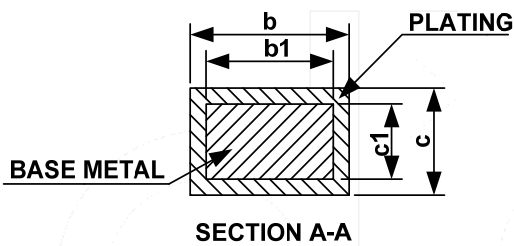
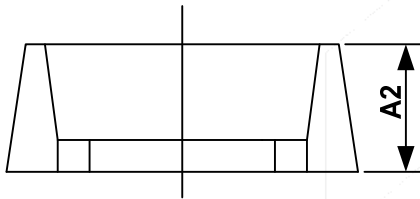
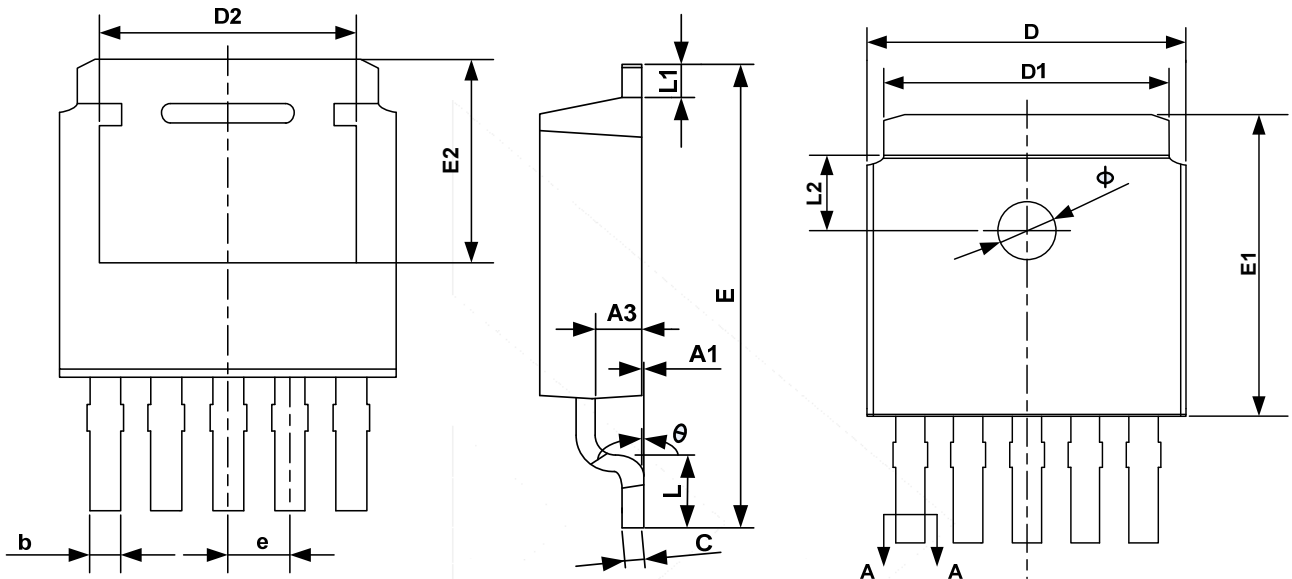
TO252-5

Figure 1 Pin Assignment (Top View)

Pin Definitions

Pin Name	Description
VIN	Power Supply voltage input
LED	Connect to Cathode of LED string
GND	Ground
VLMT	Adjustable LED Short Protection Threshold
VC	Adjustable LED Current Ripple. By connecting a capacitor between VC to GND to regulate the current ripple.

Physical Dimensions: TO252-5



COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A1	0.00	-	0.10
A2	2.20	2.30	2.40
A3	1.02	1.07	1.12
b	0.55	-	0.64
b1	0.54	0.56	0.59
c	0.49	-	0.56
c1	0.48	0.51	0.52
D	6.50	6.60	6.70
D1	5.33 REF.		
D2	4.83 REF.		
E	9.90	10.10	10.30
E1	6.00	6.10	6.20
E2	5.30REF		
e	1.27 BSC		
L	1.40	1.50	1.60
L1	1.02 REF		
L2	1.70	1.80	1.90
θ	0	-	8°
φ	1.20X0.1±0.05 DP		



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Adaptive 100/120Hz Current Ripple Remover, Max Input Current \leq 1A

CONTACT US

Dioo is a professional design and sales corporation for high-quality and performance analog semiconductors. The company focuses on industry markets, such as, cell phone, handheld products, laptop, and medical equipment and so on. Dioo's product families include analog signal processing and amplifying, LED drivers and charger IC. Go to <http://www.dioo.com> for a complete list of Dioo product families.

For additional product information, or full datasheet, please contact with our Sales Department or Representatives.

