



Exclara Product Brief

EXC100-PB-08.03.11

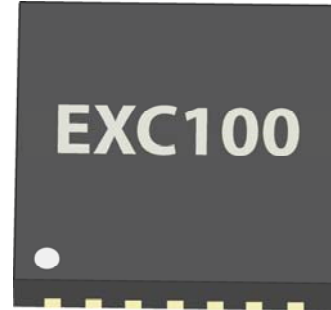
EXC100

High-Voltage LED Driver IC

Product Overview

The EXC100 is an integrated high-voltage LED driver capable of direct line operation.

- Ideal for driving LEDs directly from the AC line
- Integrate LED and driver system on single PCB
- 7 x 7 mm QFN package enables small form factor

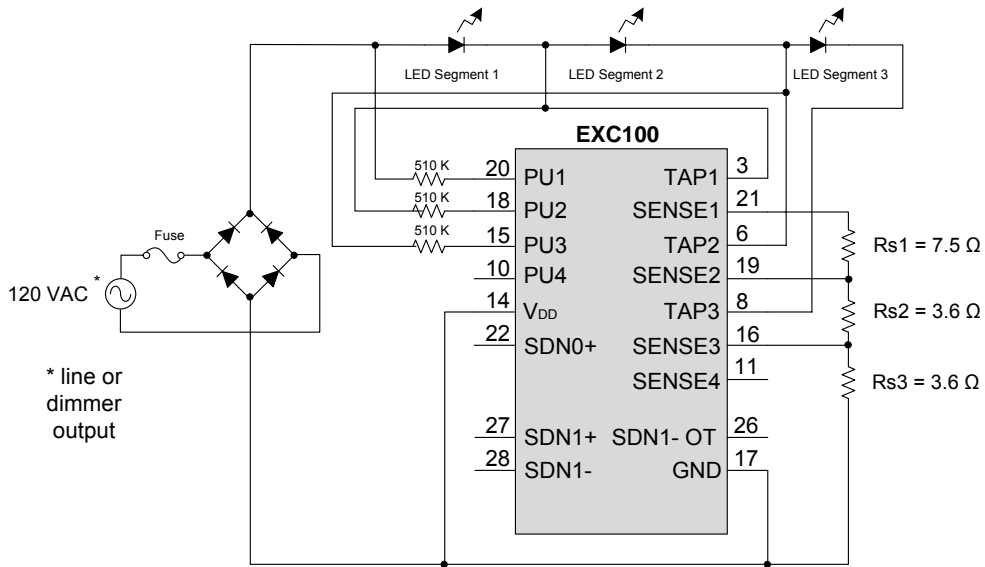


Industry-leading single-chip driver

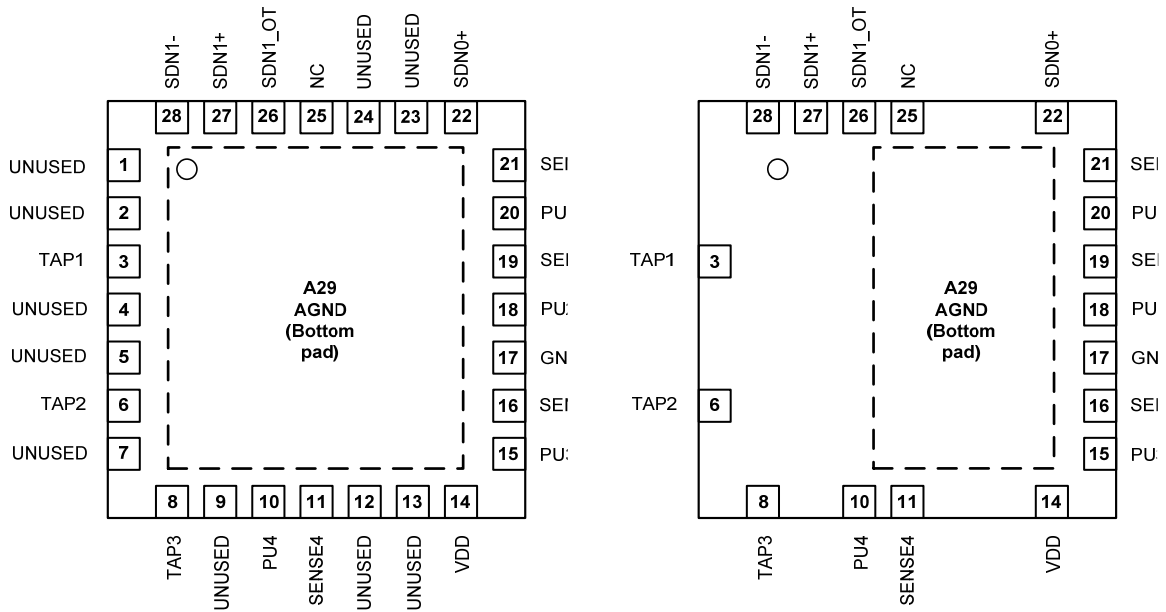
| Benefits of Exclara's EXC100 | EXC100 Features |
|---|---|
| <ul style="list-style-type: none"> • Provides high-performance power conversion efficiency, power factor, and EMI acceptance | <ul style="list-style-type: none"> • High efficiency (>90%) • High power factor (>0.98) • FCC Class B compliance |
| <ul style="list-style-type: none"> • Stable output relative to traditional AC solutions | <ul style="list-style-type: none"> • Lower output sensitivity to input changes |
| <ul style="list-style-type: none"> • Multinational usability | <ul style="list-style-type: none"> • Universal VAC operation, 50/60 Hz operation |
| <ul style="list-style-type: none"> • Temperature protection inherent | <ul style="list-style-type: none"> • Thermal sensor over-temperature shutdown |
| <ul style="list-style-type: none"> • Low number of external components reduces product cost and improves reliability | <ul style="list-style-type: none"> • Integrates key components • Balanced light array output for pleasing appearance |



Typical 10W application



Package – Top View



QFN-28L Package
Sampling now

QFN-18L Package
Mid-2011 availability

(NOTE: Exposed Pad on bottom surface is Analog Ground)



Absolute Maximum Ratings

| CHARACTERISTICS | VALUE | UNITS |
|---|-------------|-------|
| Voltage at TAP1 and TAP2 | 500 | V |
| Voltage at TAP3 pin | 200 | V |
| Voltage at all other pins except TAP1, TAP2, and TAP3 | 36 | V |
| Sense 1-4 | 5 | V |
| Package power dissipation (at 85°C) | 2 | W |
| Storage temperature | -65 to +150 | °C |
| Temperature under bias | -40 to +85 | °C |

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