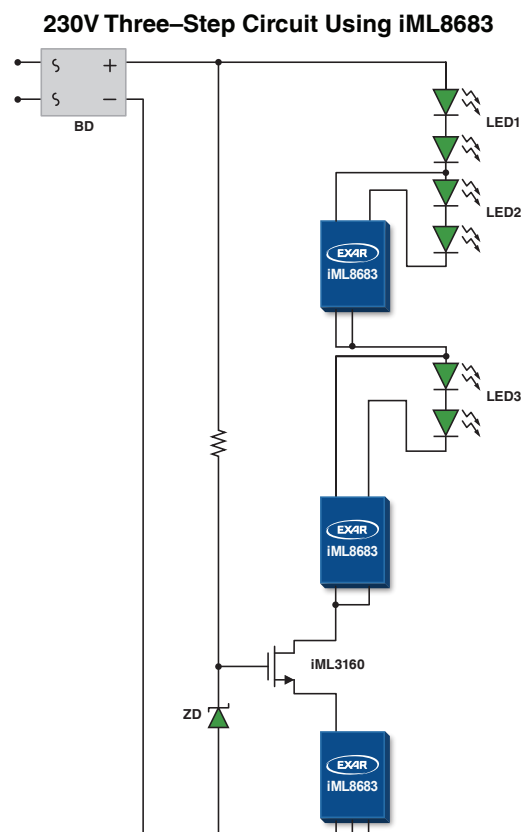




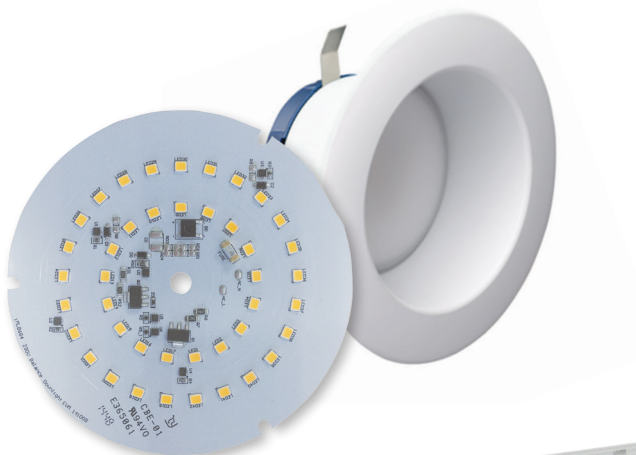
- Single board solutions with the driver circuit on LED board
- No magnetics, MOV or E-Cap required
- High PF, low THD, low flicker solutions
- TRIAC dimmable
- High surge immunity

Exar is the world leader in AC step driver solutions for LED bulbs, tubes, troffers, downlights and decorative LED applications. Our patented distributed architecture eliminates the need for magnetics, MOVs and electrolytic capacitors providing robust, cost effective and extremely small solutions for your lamp or luminaire with low flicker, high power factor and low THD.

| iML8683/84<br>System Structure | Surge Immunity |
|--------------------------------|----------------|
| With 600V MOSFET               | > 750V         |
| With 800V MOSFET               | > 1250V        |
| With 600V MOSFET + MOV 7D471   | > 2000V        |



| Part Number   | Description                                    | Dimmable | Package         |
|---------------|--|----------|-----------------|
| iML8683NL-ADJ | Three-Terminal LED Current Controller          | No       | 2mm x 2mm DFN-6 |
| iML8683BP-ADJ | Three-Terminal LED Current Controller          | No       | SOT-89-5        |
| iML8684NL-ADJ | Three-Terminal Dimmable LED Current Controller | Yes      | 2mm x 2mm DFN-6 |
| iML8684BP-ADJ | Three-Terminal Dimmable LED Current Controller | Yes      | SOT-89-5        |



### 220V Down Light

- Surge protection > 1kV without a MOV
- Uniform dimming



### 220V T8 Tube

- Uniform light output
- PF > 0.98 and THD < 20%
- Surge protection > 1kV without a MOV

## iML8683/84 Features

- System
  - All solid state components
  - No magnetics or electrolytic capacitor required
  - No MOV required while maintaining >1kV surge immunity
  - Single board solution minimizes process flow and assembly cost
  - High PF and low THD performance
  - High efficacy
  - Wide range of LED forward voltages supported
  - Distributed heat to multiple packages improves thermal management
  - TRIAC dimmable
- Chip
  - 88V input voltage
  - < 3V dropout voltage for up to 150mA regulating current
  - 2mm x 2mm DFN6 package

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