

# General Lighting



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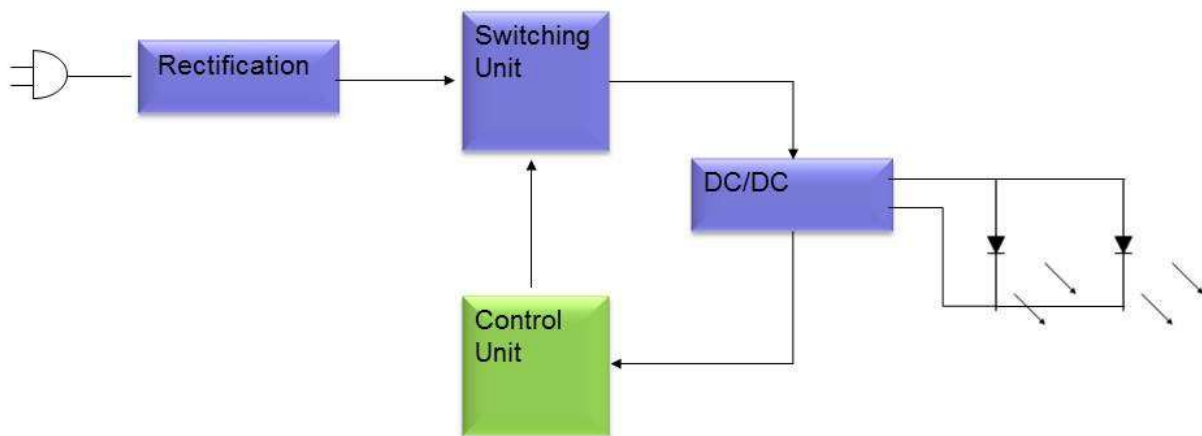
Comchip has many products for lighting application – from traditional ballast lighting to energy efficient LED lighting. Whether it is bridge rectifiers, Low Vf Schottky, High Efficiency Rectifiers, or flat chip packages with build-in heatsinks, Comchip's diodes contribute to your lighting application's superior and reliable performance, dissipating heat effectively and converting energy to light in the most efficient manner.

All lighting application have these common functional blocks as illustrated in Figure 1.:

- Rectification
- Switching unit
- Control unit
- DC/DC conversion
- Light emitting elements

Figure 1. Typical Lighting Block Diagram

**Lighting**



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For each of the functional blocks, these Comchip diodes are recommended:

## **Rectification Unit**

| Comchip P/N                | Product          | Package   | Specification |
|----------------------------|------------------|-----------|---------------|
| <a href="#">GBU806-G</a>   | Bridge Rectifier | GBU       | 8A/600V       |
| <a href="#">GBL06-G</a>    | Bridge Rectifier | 2GBJ      | 4A/600V       |
| <a href="#">DF206S-G</a>   | Bridge Rectifier | DFS       | 2A/600V       |
| <a href="#">DB105S-G</a>   | Bridge Rectifier | DBS       | 1A/600V       |
| <a href="#">ABS6-G</a>     | Bridge Rectifier | ABS       | 0.8A/600V     |
| <a href="#">CGRM4007-G</a> | Rectifier        | Mini SMA  | 1A/1000V      |
| <a href="#">CGRA4005-G</a> | Rectifier        | SMA       | 1A/600V       |
| <a href="#">CURA104-G</a>  | Rectifier        | SMA       | 1A/400V       |
| <a href="#">CFRB205-G</a>  | Rectifier        | SMB       | 2A/600V       |
| <a href="#">1N4007-G</a>   | Rectifier        | DO-41     | 1A/1000V      |
| <a href="#">SR10150-G</a>  | Schottky Diode   | ITO-220AB | 10A/150V      |

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## Switching Unit

| Comchip P/N                | Product          | Package   | Specification |
|----------------------------|------------------|-----------|---------------|
| <a href="#">GBU806-G</a>   | Bridge Rectifier | GBU       | 8A/600V       |
| <a href="#">GBL06-G</a>    | Bridge Rectifier | 2GBJ      | 4A/600V       |
| <a href="#">DF206S-G</a>   | Bridge Rectifier | DFS       | 2A/600V       |
| <a href="#">DB105S-G</a>   | Bridge Rectifier | DBS       | 1A/600V       |
| <a href="#">ABS6-G</a>     | Bridge Rectifier | ABS       | 0.8A/600V     |
| <a href="#">CGRM4007-G</a> | Rectifier        | Mini SMA  | 1A/1000V      |
| <a href="#">CGRA4005-G</a> | Rectifier        | SMA       | 1A/600V       |
| <a href="#">CURA104-G</a>  | Rectifier        | SMA       | 1A/400V       |
| <a href="#">CFRB205-G</a>  | Rectifier        | SMB       | 2A/600V       |
| <a href="#">1N4007-G</a>   | Rectifier        | DO-41     | 1A/1000V      |
| <a href="#">SR10150-G</a>  | Schottky Diode   | ITO-220AB | 10A/150V      |

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## Control Unit

| Comchip P/N                   | Product         | Package  | Specification |
|-------------------------------|-----------------|----------|---------------|
| <a href="#">CZRQR5V6B-HF</a>  | Zener Diode     | 0402     | 5.6V/125mW    |
| <a href="#">CZRU52C4V7-HF</a> | Zener Diode     | 0603     | 4.7V/150mW    |
| <a href="#">CZRT5231B-HF</a>  | Zener Diode     | SOT-23   | 5.1V/350mW    |
| <a href="#">CZRW5240B-G</a>   | Zener Diode     | SOD-123  | 10V/500mW     |
| <a href="#">CDSF4148-HF</a>   | Switching Diode | 1005     | 150mA/75V     |
| <a href="#">CDSF4448-HF</a>   | Switching Diode | 1005     | 125mA/80V     |
| <a href="#">CDST-99-G</a>     | Switching Diode | SOT-23   | 200mA/70V     |
| <a href="#">CDSL4148-G</a>    | Switching Diode | SOD-80   | 150mA/75V     |
| <a href="#">CDBQR00340-HF</a> | Schottky Diode  | 0402     | 30mA/40V      |
| <a href="#">CDBU0230R-HF</a>  | Schottky Diode  | 0603     | 200mA/30V     |
| <a href="#">CDBF0520-HF</a>   | Schottky Diode  | 1005     | 500mA/20V     |
| <a href="#">CDBFN140-HF</a>   | Schottky Diode  | SOD-323  | 1A/40V        |
| <a href="#">CDBM140L-HF</a>   | Schottky Diode  | Mini SMA | 1A/40V        |
| <a href="#">2N7002-HF</a>     | MOSFET          | SOT-23   | 250mA/60V     |

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## DC/DC Conversion Unit

| Comchip P/N                | Product          | Package   | Specification |
|----------------------------|------------------|-----------|---------------|
| <a href="#">GBU806-G</a>   | Bridge Rectifier | GBU       | 8A/600V       |
| <a href="#">GBL06-G</a>    | Bridge Rectifier | 2GBJ      | 4A/600V       |
| <a href="#">DF206S-G</a>   | Bridge Rectifier | DFS       | 2A/600V       |
| <a href="#">DB105S-G</a>   | Bridge Rectifier | DBS       | 1A/600V       |
| <a href="#">ABS6-G</a>     | Bridge Rectifier | ABS       | 0.8A/600V     |
| <a href="#">CGRM4007-G</a> | Rectifier        | Mini SMA  | 1A/1000V      |
| <a href="#">CGRA4005-G</a> | Rectifier        | SMA       | 1A/600V       |
| <a href="#">CURA104-G</a>  | Rectifier        | SMA       | 1A/400V       |
| <a href="#">CFRB205-G</a>  | Rectifier        | SMB       | 2A/600V       |
| <a href="#">1N4007-G</a>   | Rectifier        | DO-41     | 1A/1000V      |
| <a href="#">SR10150-G</a>  | Schottky Diode   | ITO-220AB | 10A/150V      |