



Lighting

# Application Brief



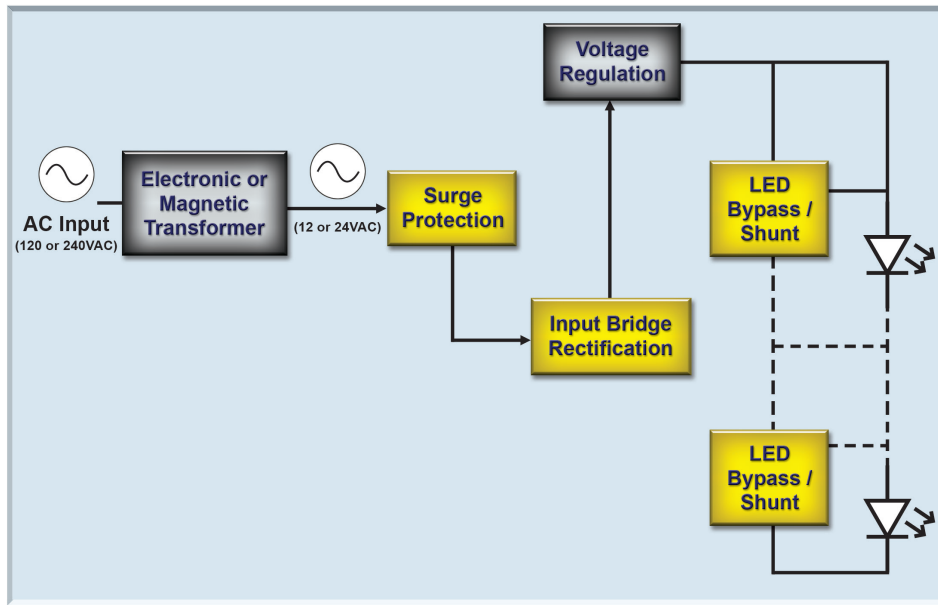
## Low Voltage LED



Low voltage LED solutions are used for interior accent, counter top and display lighting applications. Small form factor and energy efficient semiconductors are critical design elements of these lighting solutions. Central Semiconductor manufactures a wide array of small form factor, low profile discrete semiconductors that optimize energy efficiency for use in these lighting solutions.





For more information visit: [www.centrasemi.com/applications](http://www.centrasemi.com/applications)

## Low Voltage LED Topology






### Surge Protection

#### • Transient Voltage Suppressors (TVS)





-  - 1SMB18CA: 18V stand-off, 600W, bi-directional (SMB)
-  - 1SMC18CA: 18V stand-off, 1500W, bi-directional (SMC)
-  - 1SMB36CA: 36V stand-off, 600W, bi-directional (SMB)
-  - 1SMC36CA: 36V stand-off, 1500W, bi-directional (SMC)

### LED Bypass / Shunt

#### • Current Limiting Diodes (CLDs)













-  - CMJH150: 15mA (SOD-123FL)
-  - CMJH180: 20mA (SOD-123FL)
-  - CMJA5050: Adjustable 50-80mA (DFN123F)

#### • Zener Diodes

-  - CMDZ5242B: 12V, 250mW (SOD-323)
-  - CMZ5927B: 12V, 1.5W (SMA)
-  - CMHZ5252B: 24V, 500mW (SOD-123)
-  - CMOZ24L: 24V, 250mW (SOD-523)

### Input Bridge Rectification

#### • Schottky Bridge Rectifiers (Full Wave)

-  - CBRLDSH2-40: 2.0A, 40V (LPDIP)
-  - CBRLDSH2-60: 2.0A, 60V (LPDIP)
-  - CBRHDSH2-40: 2.0A, 40V (HD DIP)
-  - CBRHDSH2-60: 2.0A, 60V (HD DIP)
-  - CBRDFSH1-40: 1.0A, 40V (BR DFN)
-  - CBRDFSH1-60: 1.0A, 60V (BR DFN)
-  - CBRDFSH1-100: 1.0A, 100V (BR DFN)
-  - CBRDFSH2-40: 2.0A, 40V (BR DFN)
-  - CBRDFSH2-60: 2.0A, 60V (BR DFN)
-  - CBRDFSH2-100: 2.0A, 100V (BR DFN)
-  - CBRDFSH3-40: 3.0A, 40V (BR DFN)
-  - CBRDFSH3-60: 3.0A, 60V (BR DFN)