



Lighting

APPLICATION BRIEF



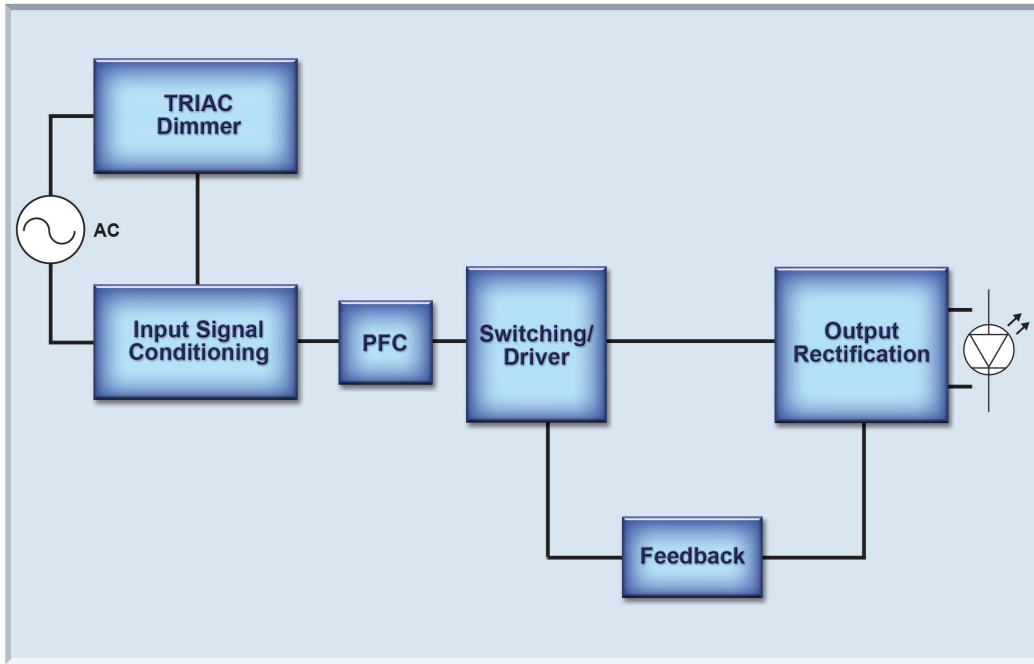
LED Driver with Dimmer



The ability to effectively dim Solid State Lighting (SSL) is a technology challenge that has only recently been conquered. The TRIAC dimmer circuit with Power Factor Correction (PFC) is an example of modern technology making effective use of traditional dimming schemes. Central's comprehensive portfolio facilitates both energy efficiency improvements and component size reductions for today's most demanding dimmable lighting solutions.

For more information visit: www.centrasemi.com/product/leddimmer

Off-Line Driver Topology with TRIAC Dimming and PFC



Input Signal Conditioning

• Bridge Rectifiers (Full Wave)

- CBRHD-04: 0.8A, 400V (HD DIP)
- CBR1-D040S: 1.0A, 400V (SMDIP)
- CBR2-D040S: 2.0A, 400V (SMDIP)

• Bi-Directional Transient Voltage Suppressors

- 1SMB170CA: 600W, 170V (SMB)
- 1SMC170CA: 1.5kW, 170V (SMC)
- 3SMC170CA: 3.0kW, 170V (SMC)

For more information visit: www.centrasemi.com/apps/isc7

weblink scan



Use QR reader for direct link to application web page.

TRIAC Dimmer

• TRIACs

- CQ223-4M: 4.0A, 600V (SOT-223)
- CQD-4M: 4.0A, 600V (DPAK)
- CQDD-8M: 8.0A, 600V (D²PAK)

For more information visit: www.centrasemi.com/apps/td7

Power Factor Correction (PFC)

• Ultra Fast Rectifiers

- CMMR1U-06: 1.0A, 600V, 75ns (SOD-123F)
- CMR1U-06M: 1.0A, 600V, 75ns (SMA)
- CMR3U-06M: 3.0A, 600V, 100ns (SMB)
- CMR3S-06: 3.0A, 600V, 35ns (SMC)
- CMR5U-06: 5.0A, 600V, 100ns (SMC)
- CUDD8-08: 8.0A, 800V, 50ns (D²PAK)

For more information visit: www.centrasemi.com/apps/pfc7








Lighting

LED Driver with Dimmer

Switching / Driver

• Bipolar Power Transistors





-  CZT7090L: 3.0A, 40V Low $V_{CE(SAT)}$ PNP (SOT-223)
-  CZT3090LE: 3.0A, 50V Low $V_{CE(SAT)}$ NPN (SOT-223)
-  CZT5338: 5.0A, 100V NPN (SOT-223)
-  -CTLT953-M833: 5.0A, 100V PNP (TLM833)
-  -CZT853: 6.0A, 100V NPN (SOT-223)

For more information visit: www.centrasemi.com/apps/sd7

Feedback

• Ultra Low Leakage Diodes



-  -CMOD6001: 250mA, 100V (SOD-523)
-  -CMDD6001: 250mA, 100V (SOD-323)

• Zener Diodes








-  -CMOZ3V3 thru CMOZ15V: 350mW, 3.3V -15V (SOD-523)

For more information visit: www.centrasemi.com/apps/fb7

Output Rectification








• Super Fast and Ultra Fast Rectifiers



-  -CMMR1U-06: 1.0A, 600V, 75ns (SOD-123F)
-  -CMR1U-06M: 1.0A, 600V, 75ns (SMA)
-  -CMR3U-06M: 3.0A, 600V, 100ns (SMB)
-  -CMR3S-06: 3.0A, 600V, 35ns (SMC)
-  -CMR5U-06: 5.0A, 600V, 100ns (SMC)

• Schottky Rectifiers



-  -CMLSH1-40: 1.0A, 40V (SOT-563)
-  -CMMSH1-40L: 1.0A, 40V Low V_F (SOD-123F)
-  -CMSH2-40L: 2.0A, 40V Low V_F (SMB)
-  -CMSH3-40: 3.0A, 40V (SMC)
-  -CTLSH3-30M833: 3.0A, 30V (TLM833)
-  -CMSH5-40: 5.0A, 40V (SMC)
-  -CTLSH5-40M833: 5.0A, 40V (TLM833)

For more information visit: www.centrasemi.com/apps/or7

NEW Application Resources

For today's most demanding applications



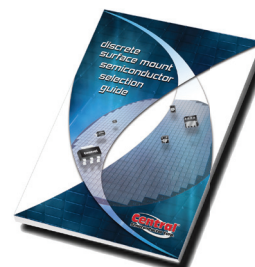
For more information visit the Application Resources section of Central's website at: www.centrasemi.com/product/applications

Samples



To order samples of these devices visit: <http://web.centrasemi.com/search/sample.php>

Literature



New SMD SELECTION GUIDE

Order your selection guide today. Visit: web.centrasemi.com/search/sample.php



Innovative Discrete Semiconductors

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www.centrasemi.com

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PB LED Dimmer Driver (R0)