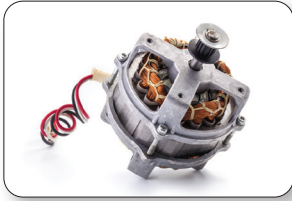




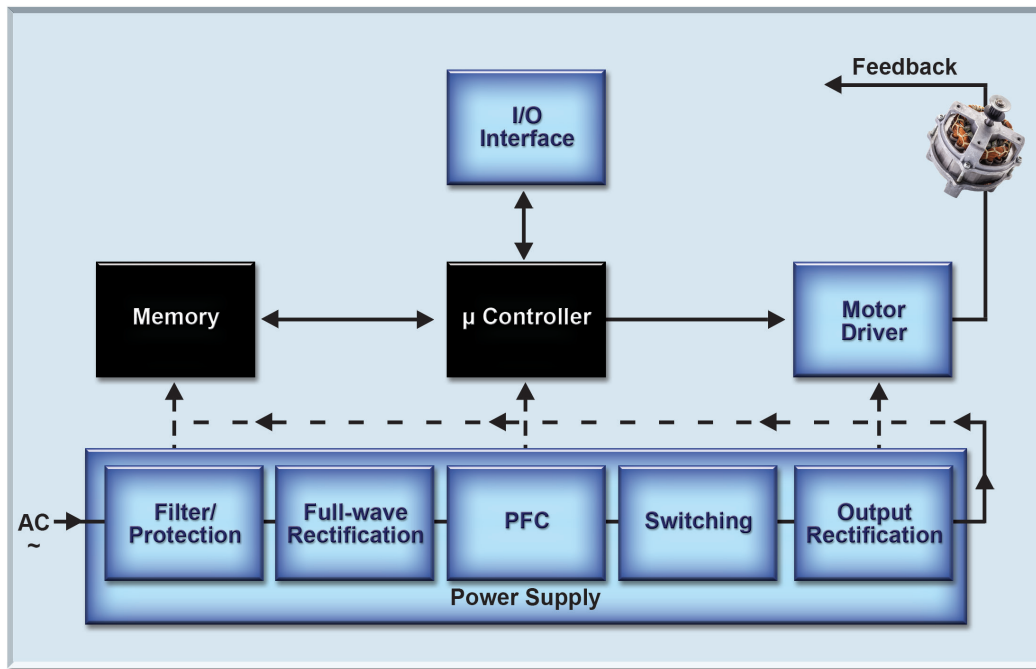
Motor Control Systems



Today's intelligent motor control systems apply power to motors only as needed, in the amount required, and in near perfect unison with the dynamics of the power grid. To this end, Central Semiconductor provides a host of devices that assist in motor control power management, Power Factor Correction (PFC) and control circuit functionality.

For more information visit: www.centrasemi.com/applications





Motor Control Systems Topology



I/O Interface

• ESD Transient Voltage Suppressors










-  - CFTVS5V0LC: 5.0V, 0.9pF, Single, ESD TVS (SOD-882L)
-  - CTLTVS12: 9.0V (stand-off), 14pF, Single, ESD TVS (TLM2D3D6)
-  - CMXTVS5-4: 5.0V, 0.6pF, 4 line ESD TVS Array (SOT-26)
-  - CMNTVS5V0: 5.0V, 5.5pF, 4 line ESD TVS Array (SOT-953)

Motor Driver

• MOSFETs



-  CWDM3011N: 11A, 30V, N-Channel MOSFET (SOIC-8)
-  CWDM3011P: 11A, 30V, P-Channel MOSFET (SOIC-8)
-  CXDM3069N: 6.9A, 30V, N-Channel MOSFET (SOT-89)
-  CXDM4060N: 6.0A, 40V, N-Channel MOSFET (SOT-89)
-  CXDM4060P: 6.0A, 40V, P-Channel MOSFET (SOT-89)
-  CWDM305ND: 5.8A, 30V, Dual, N-Channel MOSFET (SOIC-8)
-  CWDM305PD: 5.3A, 30V, Dual, P-Channel MOSFET (SOIC-8)



Power Supply

Filter / Protection

• Transient Voltage Suppressors (TVSs)



- 3SMC170CA: 3000W Peak, 170V bi-directional, 5% TVS (SMC)
- 1.5SMC170CA: 1500W Peak, 170V bi-directional, TVS (SMC)
- 1.5SMC200CA: 1500W Peak, 200V bi-directional, 5% TVS (SMC)
- 1.5SMC220CA: 1500W Peak, 220V bi-directional, 5% TVS (SMC)

Full-wave Rectification

• Bridge Rectifiers (Full Wave)



- CBRDFA4-100: 4.0A, 1000V full-wave bridge (BR DFN-A)
- CBR6M-L060: 6.0A, 600V full-wave bridge (Case DM)
- CBR8M-L060: 8.0A, 600V full-wave bridge (Case DM)
- CBR25-060P: 25A, 600V full-wave bridge (Case FP)

PFC

• Rectifier



- CHD8-06: 8A, 600V, 25ns HyperFast Rectifier (DPAK)

Switching

• Rectifiers



- CMR1H-04MFL: 1.0A, 400V, 25ns HyperFast Rectifier (SMAFL)
- CMR2S-06: 2.0A, 600V, 30ns SuperFast Rectifier (SMB)
- CMR3S-06: 3.0A, 600V, 35ns SuperFast Rectifier (SMC)

Output Rectification

• Schottky Rectifiers



- CSHD6-40C: 6.0A, 40V, Dual Common Cathode Schottky Rectifier (DPAK)
- CSHDD16-40C: 16A, 40, Dual Common Cathode Schottky Rectifier (D2PAK)
- CZSH10-40C: 10A, 40V, Dual Common Cathode Schottky Rectifier (SOT-223)

• Silicon Carbide Schottky Rectifiers (*bare die only*)



- CPC08-SIC04-650: 4.0A, 650V
- CPC09-SIC06-650: 6.0A, 650V
- CPC10-SIC08-650: 8.0A, 650V
- CPC07-SIC10-650: 10A, 650V
- CPC15-SIC10-650: 10A, 650V*
- CPC11-SIC30-650: 30A, 650V
- CPC12-SIC02-1200: 2.0A, 1200V
- CPC05-SIC05-1200: 5.0A, 1200V
- CPC06-SIC10-1200: 10A, 1200V
- CPC14-SIC10-1200: 10A, 1200V*
- CPC13-SIC50-1200: 50A, 1200V

*CPC14 & CPC15 die processes feature Ni/Au top metallization; all other processes feature Al top metallization

Samples



To order samples of these devices, search by Central part number: www.centalsemi.com/samples