



Eaton lights the way for the automobile industry



HCM1A Family



DRA Family

With the latest advancements in high-power LEDs, automakers are expected to phase in LED lighting throughout all vehicles by 2020. High-power LEDs are an efficient and reliable source of light; however, until recently LED lighting was mainly used on rear vehicle and passenger compartment lighting, as LED drivers were not able to handle the high lumens required for headlights and running lights. Moreover, these drivers did not support ambient temperatures exceeding +125 °C.

Eaton's HCM1A/HCM1AV2, DRA/DRAQ, and MPIAV2 automotive inductors provide a higher luminescence for safety and improved energy efficiency at lower costs. They enable manufacturers to develop higher-power LED headlight clusters that perform well at higher currents in a smaller package.

DRA/DRAQ Inductors

Eaton's DRA product line offers automotive electronics engineers one of the industry's most robust selections of automotive grade inductors with five different mechanical sizes and high inductance/current ranges. DRA inductors can be utilized in both exterior and interior LED lighting applications such as headlamps, tail lamps, and interior lighting.

The DRAQ automotive inductor features coupled windings (single/dual) with a high-power density shielded drum core. LED applications include headlamps, tail lamps, and interior lighting. DRA/DRAQ inductors are AEC-Q200 qualified with maximum operating temperatures of +165°C.

Features/Benefits

- AEC-Q200 qualified
- Rugged construction
- Magnetically shielded, low EMI
- Inductance range from 0.28 µH to 1000 µH
- Current range up to 56 A
- Small footprint SMT package
- Ferrite core material
- Halogen-free, lead-free, RoHS compliant

HCM1A/HCM1AV2 Inductors

Eaton's HCM1A and HCM1AV2 inductors have tight thermal coupling that ensures efficient heat dissipation under high current conditions. They are available in a variety of sizes and higher inductance values, allowing automotive designers to utilize higher voltages needed to drive multiple high-power LED arrays for headlights and daytime running lights.

These high-current power inductors have rugged durability to withstand harsh environmental, electrical, and mechanical conditions. They can be utilized in headlamps, tail lamps, interior lighting and LED lighting.

Features/Benefits

- AEC-Q200 qualified
- Magnetically shielded, low EMI
- Frequency range up to 1 MHz
- Inductance range from 0.1 µH to 100 µH
- Current range from 1.5 A to 118 A
- Small footprint SMT package
- Iron powder and alloy powder core material
- Moisture Sensitivity Level (MSL): 1
- Halogen-free, lead-free, RoHS compliant

MPIAV2 Inductors

Eaton MPIAV2 automotive inductors are AEC-Q200 qualified products ideal for interior and exterior body electronics and lighting systems (e.g., headlamps, tail lamps, interior lighting, and LED lighting). They feature an advanced molded construction with high current handling, improved heat dissipation, rugged durability, and excellent temperature resistance.

Features/Benefits

- AEC-Q200 qualified
- Rugged construction
- Magnetically shielded, low EMI
- Inductance range from 0.28 µH to 1000 µH
- Current range up to 56 A
- Small footprint SMT package
- Ferrite core material
- Halogen-free, lead-free, RoHS compliant

Eaton's automotive-grade products provide the automotive engineer with more innovative solutions, adding flexibility to design, enabling new vehicle features, and enhancing the driving experience.

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