



N-Channel MOSFETs

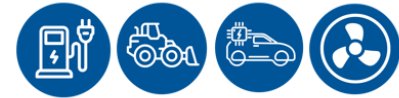
LFPAK8080

40V, 85V, 100V

Sales Dept. 2023.

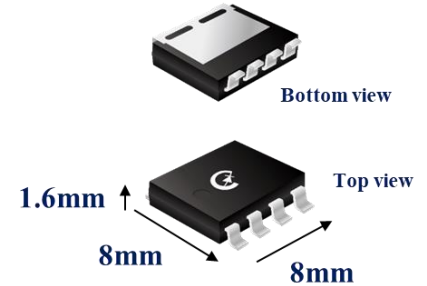


LFAK8080 - LFMND0P7



*Energy Efficiency
& Enhanced Reliability*

1. Eris Tech. has launched innovative high-current, high-thermal-efficiency 40V, 85V, and 100V N-Channel MOSFETs in the LFAK8080 package, catering to the demands of electric vehicle (EV) applications. With a gate drive voltage of 10V, these automotive-grade MOSFETs exhibit a typical $R_{DS(ON)}$ of only $0.54m\Omega$ and a gate charge of 117nC. Such performance greatly enhances system efficiency and significantly reduces power consumption losses in automotive high-power BLDC motor drivers, DC-DC converters, and charging systems.
2. Power Density Advantage - The LFAK8080 package has a PCB area of $64mm^2$, which is 40% smaller than the TO263 (D2PAK) package format. With a height of 1.6mm, it is reduced by 63% compared to the TO-263 package. The copper clip bonding between the die and the terminals helps achieve a low junction-to-case thermal resistance of $0.36^{\circ}C/W$. Therefore, the LFAK8080 can handle high current and provides a higher power density than the TO-263 package.
3. Packaging Advantages: The LFMND0P7 complies with AEC-Q101 automotive specifications, PPAP quality assurance procedures, and is manufactured in an IATF 16949 certified facility. Its gull-wing lead package design facilitates AOI (Automated Optical Inspection), enhancing temperature cycling reliability.



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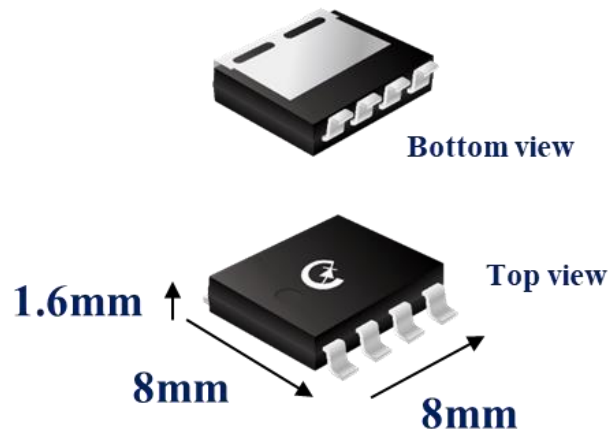
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Feature :

1. AEC-Q101 Qualified
2. 85% Space reduction than D2PAK.
3. Pure Clip design and Low Rthjc
4. Tin Plated Gull Wing Lead
5. Better FOM factor
6. Compatible footprint to market
7. IATF 16949 certified

Benefits :

1. Low RDS(on) improving Efficiency
2. Low Parasitic Inductance
3. Better Thermal Performance
4. High Reliability
5. High Power Density Designs



High Current

Small Size

Low Thermal Resistance

Reduce PCB Size



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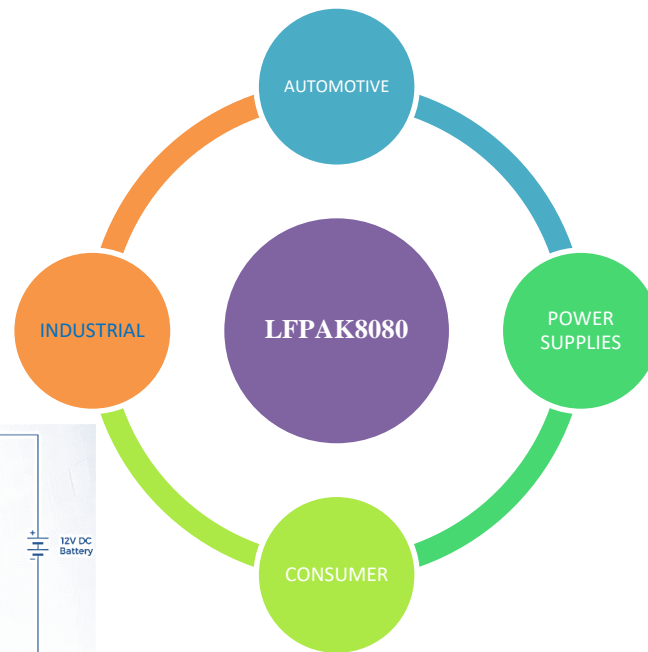
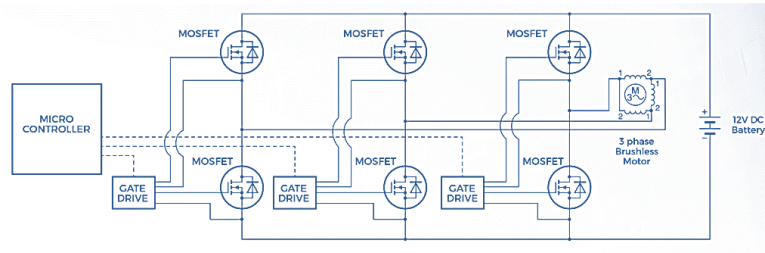


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Application :

1. 12V/24V High Power System
2. High Power DC/DC Converter
3. BMS
4. EV/xEV/Charging system /OBC
5. High Power Current BLDC

Typical Application Schematic



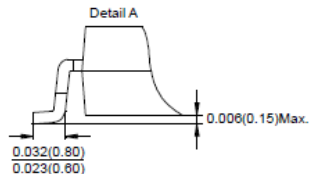
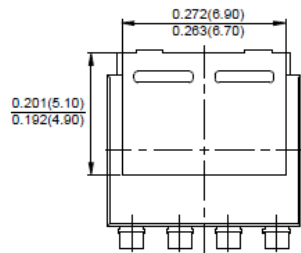
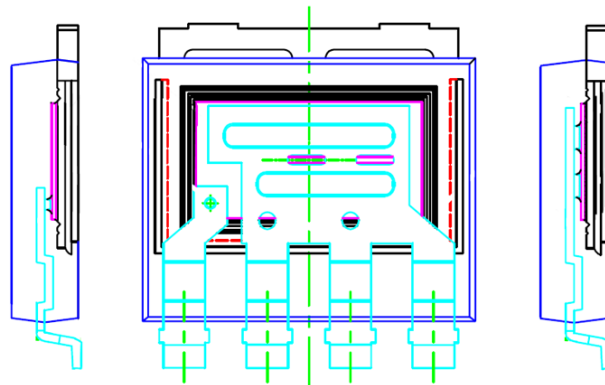
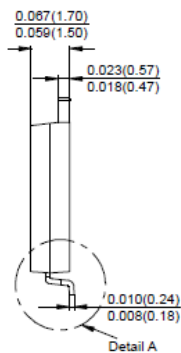
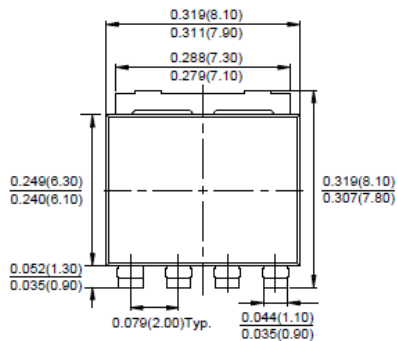
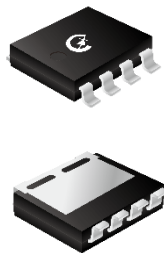
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