

ESD PROTECTION

AEC-Q101-qualified CAN FD protection diodes

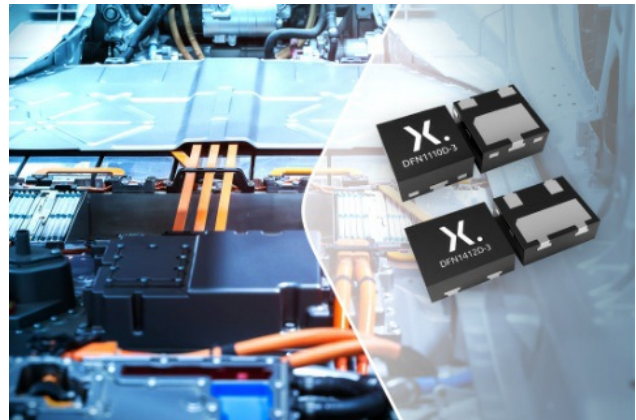
Nexperia has announced leadless ESD-protection semiconductors for CAN FD applications. The products are available in leadless packages with side-wettable flanks that enable AOI (automated optical inspection) tools to be used.

AEC-Q101-qualified, the PESD2CANFDx series parts also offer ESD and RF performance, and save PCB (printed circuit board) space. The company offers silicon-based ESD protection for the CAN FD in both leaded and leadless packages. The DFN1412D-3 and DFN1110D-3 leadless DFN packages with side-wettable flanks occupy 80 % less PCB space than traditional SOT23 and SOT323 packages, explained the company. Despite this, products assembled in this package feature improved thermal behavior due to a larger internal lead frame that includes a heatsink and thermal pad.

The PESD2CANFDx diodes come with clamping voltages of 33-V at IPP = 1 A and dynamic resistance of 0,7 Ω . The products also offer RF-switching parameters featuring a mixed mode insertion loss of +20 dB at 300 MHz.

Nexperia's product manager Lukas Droemer commented: "CAN FD is an important bus in automotive in-vehicle networks but devices must be protected against ESD. Another essential requirement for automotive applications is the ability to use AOI. Our new devices in leadless packages meet both these requirements, providing a high-performance alternative to leaded SMD packages. The PESD2CANFDx series fulfils all CAN (FD) specification requirements and exceeds the requirements of AEC-Q101 by two times."

20 products are available now in the DFN1412D-3 and DFN1110D-3 packages for automotive and industrial applications including Classical CAN/CAN FD, Flexray, Sent, and LVDS.



(Source: Nexperia)

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