

700-V SiC MOSFET Is Military Grade

[Solitron Devices](#)' SD11710 700-V SiC MOSFET is being introduced as industry's first military-grade 700-V SiC device. Packaged in an extremely rugged hermetically sealed TO-258, the SD11710 is built for the most demanding industrial, aerospace and defense applications, according to the vendor. The SD11710 provides an $R_{DS(ON)}$ of 15 m Ω and a continuous drain current rating of 50 A.

Key features include low capacitances and low gate charge, fast switching speed due to low internal gate resistance (ESR), stable operation at a high junction temperature of $T_J(max) = 175^{\circ}C$, a fast and reliable body diode and superior avalanche ruggedness. SiC provides excellent switching performance versus the best-in-class silicon MOSFETs and IGBTs with minimal variation versus temperature. 200 $^{\circ}C$ operation is also available on request.

Rugged packaging combined with high temperature operation make the SD11710 well suited for demanding power supply and motor control applications requiring small size, light weight and high efficiency (see the figure). The SD11710 is available with COTS, TX, TXV and space-level screening. Samples are available from stock. For more information, see the [datasheet](#).



Figure. Packaged in a rugged hermetically sealed TO-258, the SD11710 700-V 15-m Ω SiC MOSFET is built for demanding industrial, aerospace and defense applications.