MITSUBISHI ELECTRIC
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SiC MOSFET Chip Handling Guide

MITSUBISHI ELECTRIC CORPORATION

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Improper transportation, storage, or assembly may result in chip damage and reduced reliability. After shipment from Mitsubishi Electric, wafers and chips should be handled appropriately throughout each process until package assembly and final inspection are completed.

After Shipment from Mitsubishi Electric

Transport-ation	■ Non-compliance with the following precautions may result in chip damage, inverter malfunction, or equipment failure. • Always handle the shipping carton in the specified orientation. • Do not throw, drop, or subject the carton to mechanical shock. • Do not allow the carton to become wet.



Storage	■ Failure to comply with the following precautions may result in assembly defects or degradation of module performance and reliability. • Store the products carefully to prevent exposure to water, vibration, and mechanical shock. • Store the products under appropriate environmental conditions. Recommended storage conditions:5°C ≤ Ta ≤ 30°C, 45% ≤ RH ≤ 70% • After opening the package, store the products in a nitrogen atmosphere and use them as soon as possible. • For chips stored beyond the specified storage life, customers should perform sufficient quality verification and determine whether they are suitable for use. • Do not use containers that are prone to electrostatic charge buildup for transportation or storage.



Return to Storage

Assembly & Inspection	■ Failure to comply with the following precautions may result in serious accidents. • Do not expose chips, assembled modules, or inverters to high-humidity environments (including condensation), organic solvents, corrosive gases, explosive gases, particulate contaminants, or corrosive substances. ■ Failure to comply with the following precautions may result in damage to chips or modules caused by electrostatic discharge (ESD) from personnel or charged packaging materials, or by excessive voltage applied between chip terminals. • Never touch chip or module terminals with bare hands. • Ground all equipment and personnel during module assembly. • Implement ESD control measures, such as installing conductive mats on workbenches and surrounding floor areas. • If a chip or module becomes electrostatically charged, discharge it promptly. • Do not apply a drain-to-source voltage while the gate-to-source terminals are left open.





Sending to the Next Process as a Module

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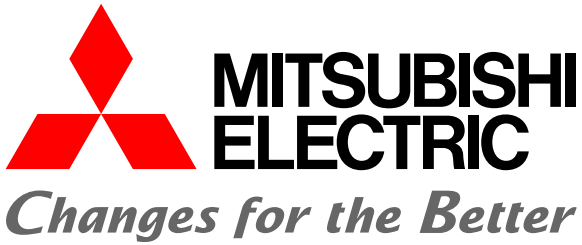
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