Press Release

FOR IMMEDIATE RELEASE

CoolCAD Electronics Expands Silicon Carbide Portfolio with 3.3 kV High-Power, High-Temperature Semiconductor Devices.

Greenbelt, MD — Oct 30, 2025 CoolCAD Electronics, a leader in advanced Silicon Carbide (SiC) device design and manufacturing, today announced an expansion of its SiC product portfolio with the launch of new 3.3 kV high-power, high-temperature MOSFETs and power components engineered for demanding energy, industrial, and transportation applications.

The new 3.3 kV family is optimized for high efficiency, low loss, and long-term reliability in the most extreme operating environments, from grid-connected converters and solid-state circuit breakers to renewable energy inverters and heavy-duty electric vehicles.

“As systems push beyond 1.2 kV and 1.7 kV limits, our customers are looking for SiC solutions that deliver uncompromising performance and reliability at medium voltages,” said Dr. Akin Akturk, CTO of CoolCAD Electronics. “Our 3.3 kV platform bridges that gap, combining best-in-class figures of merit with robust high-temperature operation and scalable packaging options.”

Key Performance Highlights

- 3.3 kV devices available in wafer, die, and various packaged formats
- Ultra-low R_{DSON} of 70 mΩ, enabling exceptional efficiency
- Best-in-class R_{DSON} figure of merit for fast, low-loss switching
- Low leakage on both gate and drain for enhanced reliability
- Low-creepage packages designed for compact, high-voltage assemblies
- Multiple package options: TO-247 (3L / 4L), TOLL, D2PAK, and other TO variants
- Ag-sintered die attach for superior thermal and electrical performance
- High-temperature molding compounds rated for 175 °C, 200 °C, and 230 °C

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With these advancements, CoolCAD extends its SiC leadership into power devices and mission-critical power electronics, enabling higher system power density, faster switching speeds, and greater thermal resilience, even in radiation-rich or high-altitude conditions.

About CoolCAD Electronics

CoolCAD Electronics Inc., headquartered in Greenbelt, Maryland, is an integrated design and manufacturing company specializing in Silicon Carbide (SiC) and wide-bandgap (WBG) semiconductor technologies. The company's expertise spans device design, modeling, fabrication, and packaging, supporting applications in power electronics, sensing, and optoelectronics. CoolCAD's SiC devices are designed and assembled in the USA, supporting next-generation efficiency, ruggedness, and reliability across energy, industrial, and defense sectors.

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