650 V and 1200 V Gen 3 Silicon Carbide (SiC) Schottky Diodes

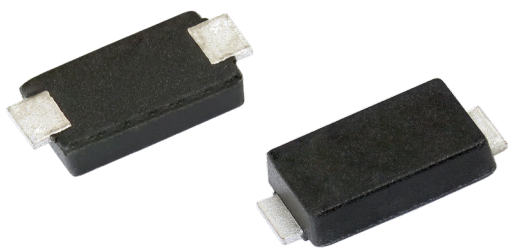
Devices' Package Increases Efficiency While Enhancing Electrical Insulation

ADVANTAGE

1 A and 2 A devices in the compact SlimSMA HV (DO-221AC) package, offer low capacitive charge and high minimum creepage distance of 3.2 mm

KEY PRODUCT FEATURES

- ✓ Low capacitive charge down to 7.2 nC
- ✓ Low forward voltage drop down to 1.30 V
- ✓ Temperature-invariant switching behavior
- ✓ Positive temperature coefficient for easy paralleling
- ✓ Molding compound with a high CTI ≥ 600 ensures excellent electrical insultation



MARKETS AND APPLICATIONS

MOBILITY

- Automotive electrification (e-powertrain)
- Transportation

ENERGY SECTOR

- Storage

INDUSTRIAL

- Drives and tools
- Infrastructure

COMPUTER

- Computer

RESOURCES

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ADDITIONAL BENEFITS

- For space-constrained designs, the diodes offer a low profile of 0.95 mm - compared to 2.3 mm for competing SMA and SMB packages with a similar footprint
- Unlike silicon diodes, these parts maintain a low capacitive charge irrespective of temperature, resulting in faster switching speeds, reduced power losses, and improved efficiency for high frequency applications
- The devices have virtually no recovery tail, which further improves efficiency

KEY SPECIFICATIONS

Part Number	VS-3C01EJ12-M3	VS-3C02EJ07-M3	VS-3C02EJ12-M3
I_F (A)	1	2	2
V_R (V)	1200	650	1200
V_F at I_F (V)	1.35	1.3	1.35
I_R at V_R at 175 °C (µA)	4.5	2	5
Q_C (nC)	7.5	7.2	13
Configuration	SlimSMA HV (DO-221AC)		
Package	Single		