



ON Semiconductor®

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Press Release:

ON Semiconductor Introduces Low-Profile SOD-123FL Packaging to its Portfolio of TVS Components and Schottky Diodes

Fifty newly-packaged devices deliver better thermal performance per unit of utilized board space than alternative packages – making them ideal for portable and wireless applications

PHOENIX, Ariz. – June 24, 2003 – Continuing to deliver products that drive higher performance, ON Semiconductor (Nasdaq: ONNN) today added the SOD-123FL package to its comprehensive portfolio of discrete components. Fifty devices, including Transient Voltage Suppression (TVS) components and Schottky diodes, are now available in the low-profile, flat-lead package. Additional devices will become available in the new packaging later this year.

“Because the SOD-123FL maximizes power dissipation per unit of board space utilized, the package is the ideal choice for TVS components and Schottky diodes necessary in portable and wireless board designs that must meet strict power management and protection requirements,” said Charlotte Diener, ON Semiconductor vice president and general manager of Standard Components.

The SOD-123FL packaged devices are drop-in replacement for the well-established SOD-123 (JEDEC DO219) footprint, yet deliver superior power-handling capability. Comparatively, the Watts/ mm² thermal performance of the SOD-123FL exceeds that of the SOD-123 by 149 percent; it improves the performance of the SMA by 90.5 percent and beats the performance of the PowerMite by 26.5 percent. The profile of the SOD123FL (1 mm maximum) is more than 25 percent lower than a standard SOD123 package – making it ideal for board-space-conscious portable applications.

The SOD-123FL package enables a low forward voltage (V_F) because of its unique lead frame and clip design that delivers optimum power efficiency. The clip-attach internal design provides superior surge-current capability compared to wire bond packages - making it an ideal package choice for transient voltage suppression applications. ON Semiconductor’s low-

leakage current silicon technology has been designed into the new packaging to improve energy savings.

The SOD123FL delivers this enhanced performance in an environmentally friendly, lead-free package platform. This package has a 100 percent tin (Sn) finish on all externally plated surfaces. It is 260° C reflow capable to Moisture Sensitivity Level (MSL) 1 and, it is backward compatible with existing reflow processes.

SOD123FL Devices

ON Semiconductor has released 50 of its proven standard components in the SOD123FL package. The devices currently available include:

- **SMF 5.0**: a series of 5 V to 170 V TVS devices capable of 200 watts (W). These devices are priced between \$0.10 to \$0.15 per unit in 10,000 unit quantities.
- **MBR120VLSFT1**: a 1 amp (A), 20 volt (V) Schottky power rectifier diode with very low forward voltage to help extend battery life for portable applications. The device is priced at **\$0.15** per unit in 10,000 unit quantities.
- **MBR120LSFT1**: a 1 A, 20 V Schottky power rectifier diode with low forward voltage to extend battery life for portable applications. The device is priced at \$0.13 per unit in 10,000 unit quantities.
- **MBR120ESFT1**: a 1 A, 20 V Schottky power rectifier with low leakage. This device is priced at \$0.13 per unit in 10,000 unit quantities.
- **MBR140SFT1**: 1 A, 40 V Schottky power rectifier that is optimized for low forward voltage and low leakage. The device is priced at \$0.13 per unit in 10,000 unit quantities.

For more information visit <http://www.onsemi.com/tech>.

About ON Semiconductor

ON Semiconductor (Nasdaq: ONNN) offers an extensive portfolio of power- and data-management semiconductors and standard semiconductor components that address the design needs of today's sophisticated electronic products, appliances and automobiles. For more information visit ON Semiconductor's Web site at <http://www.onsemi.com>.

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