

60-V SiM400 MOSFET Delivers Space Savings for Small-Signal Applications

Vishay Intertechnology, Inc. (NYSE: VSH) released a 60-V n-channel power MOSFET in the tiny SOT-923 package that will provide dramatic space savings over devices in larger packages such as the SC-70 and SC-89.

The smallest 60-V power MOSFET ever released, the SiM400 in the SOT-923 measures 1 mm by 0.6 mm with a maximum height profile of 0.43 mm. Its footprint dimensions are 77 % smaller than the SC-89, and its height profile is 26 % thinner.

On-resistance for the new device is 3.9 Ω at $V_{GS} = 10$ V, 4.8 Ω at 4.5 V, and 8 Ω at 3.5 V.

The SiM400 will serve in a very wide range of small-signal switching applications where minimal board space is available, including miniaturized motors in digital still and video cameras, electro-luminescent backlighting, and boost dc-to-dc converters, where its miniscule dimensions will help to save space and/or enable greater functionality.

Handheld devices tend to use small-signal switching in conjunction with complex controllers such as power management units (PMUs). The SiM400's low on-resistance ratings down to 3.5 V, which is an exceptionally low gate-to-source value for a 60-V device, and its small package size compared to a SC-89 thus represent important benefits.

The environmentally friendly new device is lead (Pb)-free, halogen-free, and RoHS-compliant. It additionally provides ESD protection up to 1500 V.

Samples and production quantities of the SiM400 are available now, with lead times of 10 to 12 weeks for larger orders. Pricing for U.S. delivery in 100,000-piece quantities starts at \$0.06. Follow Vishay products for power management applications at <http://twitter.com/VishayPowerMgmt> [1].

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[1] <http://twitter.com/VishayPowerMgmt>