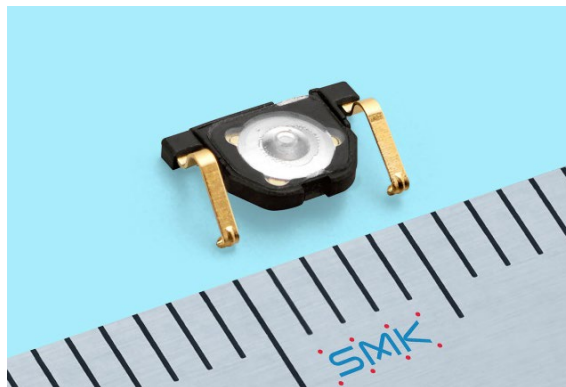


SMK Develops Small Push Switch Featuring Solder-free Mounting with Original Contact Structure



SMK has developed a solderless mountable “Mini One Dome Switch” with spring contact structure for wearable devices and will commence mass production from March 2019.

Since 2006, SMK has been providing spring contact dome switch for the smartphone market. The new switch is specifically designed for wearable devices whose market is expanding rapidly. It achieved 15% lower mounting height than the conventional product and enhanced robustness by enabling it to be mounted deeper in the printed circuit board (PCB), while maintaining the intrinsic performance of the spring contact.

Worn on the body, wearable devices might be dropped or receive a shock from outside. In such cases, the normal switches could be detached from the PCB due to the solder joint collapse, which would lead to failure. On the other hand, SMK’s dome switch provides stable contact reliability as the switch is press-mounted on the PCB, which is a solder-free spring contact structure.

The thin contact push switch with this spring structure can be held perpendicular to the PCB; therefore, it improves an accuracy of the assemble position. Also, it requires no other parts such as FPC to connect the switch to the PCB so that it contributes to reducing a quantity of parts necessary for the assemble product.

SMK intends to promote this product for a wider variety of applications including wearable devices.



【Applications】

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Wearable devices, smartphones, portable audio, PCs, PC peripherals, TVs, DVD players, industrial equipment, office equipment, home appliances, and healthcare products.

Published Date	February 13th, 2018	
Press Release Number	1114FC	
Product Name	Mini One Dome Switch	
Features	<ol style="list-style-type: none"> 1) Achieved increased contact reliability by employing a “spring contact structure” whereby the switch, which is held on the housing, is press-mounted on a PCB. 2) Actuator helps to lessen click feeling changes caused by displacement of position when assembling. 3) Solder-free mounting contributes to environmental protection. 4) The switch can be held perpendicular to the PCB, contributing to the reduced part number, design flexibility, and improved accuracy. 	
Major Specifications	Rating	12V DC, 10mA
	Operating Force	2.2±0.7N
	Travel	0.16±0.1mm
	Operating Life	200,000 cycles
	External Dimensions	5.6mm (W)× 0.95mm (D) × 3.4mm (H)
	Circuit	SPST
	Operating Temperature Range	− 20°C to +70°C
	Storage Temperature Range	− 40°C to +85°C
	Packaging	2,500 units per reel



Start Shipping Sample From	February 2019
Goes Into Mass Production From	March 2019
Production Capacity	1,000,000 units per month
Sample Price	200 yen per unit
Inquiry	For more information, please contact FC Division