



Toshiba starts sample shipment of automotive stepping motor driver

New device offers simple solution for 2-phase constant-current operation

Düsseldorf, Germany, 23 November 2017 – Toshiba Electronics Europe has just launched a new constant current 2-phase stepping motor driver for automotive applications and a wide range of general uses, including adjusting the mirror for projection of heads-up displays, motorcycle valves and valve / damper controllers in HVAC applications.

The TB9120FTG IC provides PWM 2-phase constant current control from a simple clock signal, with no need for an advanced microcontroller (MCU) or dedicated software. Smooth, precise control and lower motor noise are guaranteed by the micro step drive that is selectable for full, half, 1/4, 1/8, 1/16 and 1/32 steps. A mixed decay mode ensures that the current flowing through the motor is stable.

The new IC operates from a single supply voltage in the range 7V to 18V and incorporates DMOS FETs with low on-resistance (R_{ON}) [upper + lower = 0.7Ω at 25°C], which are capable of delivering a maximum current of 1.5A. The device is housed in a small QFN28 type package measuring just 6.0 mm x 6.0 mm.

The TB9120FTG incorporates a variety of error detections including stall detection, thermal shutdown, over-current detection and open load detection and provides a flag output to indicate the presence of any error, and a dedicated pin for stall detection.

The new IC has an operating temperature range of -40 to 125°C, and it will be qualified against AEC-Q100, a certified standard for electronic components for automotive applications.

Sample shipments start in November, with mass production scheduled to start in July 2019.

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About Toshiba Electronics Europe

[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

Formed in 1973 in Neuss, Germany, TEE has headquarters in Düsseldorf, Germany, with branch offices in Germany, France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Akira Morinaga.

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

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