Main Specifications

(Ta=-40 to 125°C)

Part number			TB9033FTG
Standard			Conforming to CXPI (ISO 20794-2 to 4, ISO 14229-8) of the standard for automotive communications protocols
Functions			CXPI interface IC with built-in hardware logics (responder node only)
I/O pins			16 GPIO pins (4.5 to 5.5V) (six pins can be switched to one circuit of 10bit AD converter input and four pins can be switched to four circuits of 8bit PWM output.)
Input functions			• Input monitoring during Sleep Mode • Input chattering filter setting • Switch matrix (max 4×4) setting • Sampling of AD converter moving average (time and number of times can be set)
Output functions			• Output on/off control (time and number of times can be set) • Output control when communication is interrupted • PWM frequency setting
Built-in memory			Non-volatile memory (saving I/O pin settings, rewriteable and passwords configurable)
Fault detection functions			Overheat, overvoltage and low voltage (This product can detect conditions that precede an abnormality and automatically send the data to the commander node.)
Absolute maximum ratings	Power supply voltage V_{VBAT} (V)		-0.3 to 40
Electrical characteristics	VBAT normal operating range V_{VBAT} (V)		6 to 18
	Current consumption (Standby Current) I_{VBAT_SLP} (μA)	Typ.	10
	Operating temperature Ta (°C)		-40 to 125
Communication speed (kbps)		Max	20
Package	Name		P-VQFN28-0606-0.65-003
	Size (mm)		6×6
Reliability test			To be AEC-Q100 (Grade1) qualified