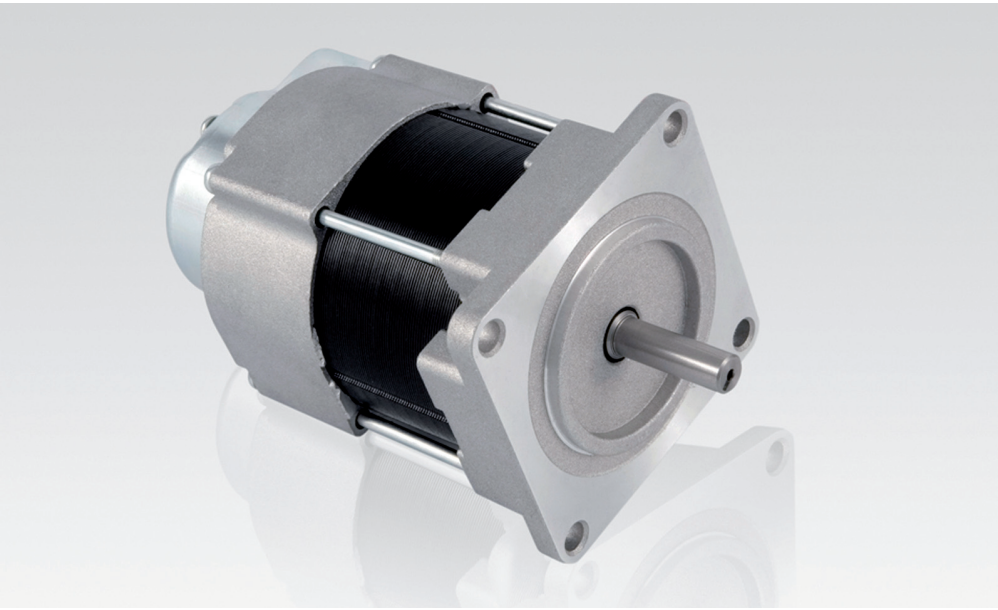
Motor control

Selection guide



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Contents

Microcontrollers

8-bit microcontroller families

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM8S - 8-bit microcontrollers															
32 pins	**STM8S207K6**	•	32	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		25(8)	LQFP32, VQFN32	3.0 to 5.5	
44 pins	**STM8S207S6**	•	32	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		34(8)	LQFP44	3.0 to 5.5	
	STM8S207S8	•	64	4 K	1.5 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		34(8)	LQFP44	3.0 to 5.5	
48 pins	**STM8S207C6**	•	32	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		38(9)	LQFP48	3.0 to 5.5	
	STM8S207C8	•	64	4 K	1.5 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		38(9)	LQFP48	3.0 to 5.5	
	STM8S207CB	•	128	6 K	2 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		38(9)	LQFP48	3.0 to 5.5	
64 pins	**STM8S207R6**	•	32	2 K	1 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		52(9)	LQFP64	3.0 to 5.5	
	STM8S207R8	•	64	4 K	1.5 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		52(9)	LQFP64	3.0 to 5.5	
	STM8S207RB	•	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		52(9)	LQFP64	3.0 to 5.5	
	STM8S208RB	•	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816), 1xCAN		52(9)	LQFP64	3.0 to 5.5	
80 pins	**STM8S207MB**	•	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816)		68(11)	LQFP80	3.0 to 5.5	
	STM8S208MB	•	128	6 K	2 K	16x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 2xUART (IrDA, ISO 7816), 1xCAN		68(11)	LQFP80	3.0 to 5.5	

Microcontrollers

8-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM8S - 8-bit microcontrollers															
32 pins	**STM8S105K4**	•	16	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		25(8)	LQFP32, VQFN32	3.0 to 5.5	
	STM8S105K6	•	32	2 K	1 K	7x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		25(8)	LQFP32, VQFN32	3.0 to 5.5	
44 pins	**STM8S105S4**	•	16	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		34(8)	LQFP44	3.0 to 5.5	
	STM8S105S6	•	32	2 K	1 K	9x10-bit	3x16-bit (8/8/11)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		34(8)	LQFP44	3.0 to 5.5	
48 pins	**STM8S105C4**	•	16	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		38(9)	LQFP48	3.0 to 5.5	
	STM8S105C6	•	32	2 K	1 K	10x10-bit	3x16-bit (9/9/12)	1x8-bit	2xWDG	1xSPI, 1xI²C, 1xUART (IrDA, ISO 7816)		38(9)	LQFP48	3.0 to 5.5	
ST7 - 8-bit microcontrollers															
ST7 application specific															
MC	**ST7MC1K2**	•	8	384		8x10-bit	1x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI	1	17(3)	LQFP32, SDIP32	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts
	ST7MC1K4	•	16	768		8x10-bit	1x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI	1	17(3)	LQFP32, SDIP32	4.5 to 5.5	
	ST7MC2S4	•	16	768		11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	
	ST7MC2R6	•	32	1 K		16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	44(12)	LQFP64	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts, beep[1]

(1) Audio square-wave generator

Microcontrollers

8-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
ST7 - 8-bit microcontrollers															
ST7 application specific															
MC	**ST7MC2S6**	•	32	1 K		11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts
MC	**ST7MC2R7**	•	48	1.5 K		16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	44(12)	LQFP64	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts, beep[1]
MC	**ST7MC2S7**	•	48	1.5 K		11x10-bit	2x16-bit (2/2/1)	1(1/0/1)	WWDG	LINSCI, SPI	1	26(6)	LQFP44	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts
MC	**ST7MC2M9**	•	60	1.5 K		16x10-bit	2x16-bit (2/2/2)	1(2/0/4)	WWDG	LINSCI, SPI	1	60(12)	LQFP80	4.5 to 5.5	Sensorless brushless motor control cell, ICD, ICP, IAP, LVD, CSS/PLL, ROP, RTC, nested interrupts, beep[1]

(1) Audio square-wave generator

Microcontrollers

32-bit microcontroller families

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
36 pins	**STM32F101T4**	•	16	4 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		26(26)	QFN36	2.0 to 3.6	Access line: 36 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F101T6	•	32	6 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		26(26)	QFN36	2.0 to 3.6	
	STM32F101T8	•	64	10 K		10x12-bit	3x16-bit (12/12/12)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		26(26)	QFN36	2.0 to 3.6	
48 pins	**STM32F101C4**	•	16	4 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	
	STM32F101C6	•	32	6 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	
	STM32F101C8	•	64	10 K		10x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	
	STM32F101CB	•	128	16 K		10x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	
64 pins	**STM32F101R4**	•	16	4 K		16x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
64 pins	**STM32F101R6**	•	32	6 K		16x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	Access line: 36 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F101R8	•	64	10 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F101RB	•	128	16 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F101RC	•	256	32 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F101RD	•	384	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F101RE	•	512	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
100 pins	**STM32F101V8**	•	64	10 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		80(80)	LQFP100	2.0 to 3.6	Access line: 36 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F101VB	•	128	16 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		80(80)	LQFP100	2.0 to 3.6	
	STM32F101T4	•	256	32 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		80(80)	LQFP100	2.0 to 3.6	
	STM32F101VD	•	384	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		80(80)	LQFP100	2.0 to 3.6	
	STM32F101VE	•	512	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		80(80)	LQFP100	2.0 to 3.6	
144 pins	**STM32F101ZC**	•	256	32 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		112(112)	LQFP144	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
144 pins	**STM32F101ZD**	•	384	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		112(112)	LQFP144	2.0 to 3.6	Access line: 36 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F101ZE	•	512	48 K		16x12-bit	6x16-bit (16/16/16)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816)		112(112)	LQFP144	2.0 to 3.6	
48 pins	**STM32F102C4**	•	16	4 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB		36(36)	LQFP48	2.0 to 3.6	USB Access line: 48 MHz CPU speed, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F102C6	•	32	6 K		10x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB		36(36)	LQFP48	2.0 to 3.6	
	STM32F102C8	•	64	10 K		10x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816), USB		36(36)	LQFP48	2.0 to 3.6	
	STM32F102CB	•	128	16 K		10x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816), USB		36(36)	LQFP48	2.0 to 3.6	
64 pins	**STM32F102R4**	•	16	4 K		16x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB		51(51)	LQFP64	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
64 pins	**STM32F102R6**	•	32	6 K		16x12-bit	2x16-bit (8/8/8)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB		51(51)	LQFP64	2.0 to 3.6	USB Access line: 48 MHz CPU speed, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, -40 to 85 °C
	STM32F102R8	•	64	10 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816), USB		51(51)	LQFP64	2.0 to 3.6	
	STM32F102RB	•	128	16 K		16x12-bit	3x16-bit (12/12/12)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816), USB		51(51)	LQFP64	2.0 to 3.6	
36 pins	**STM32F103T4**	•	16	6 K		10x12-bit	3x16-bit (12/12/14)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB, CAN		26(26)	QFN36	2.0 to 3.6	Performance line: 72 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, 1 x high-speed USART 4.5 Mbit/s, motor control oriented PWM, 3 x ADC (triple sample and hold capability), -40 to 85 °C or -40 to 105 °C
	STM32F103T6	•	32	10 K		10x12-bit	3x16-bit (12/12/14)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB, CAN		26(26)	QFN36	2.0 to 3.6	
	STM32F103T8	•	64	20 K		10x12-bit	4x16-bit (16/16/18)		2 x WDG, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB, CAN		26(26)	QFN36	2.0 to 3.6	
48 pins	**STM32F103C4**	•	16	6 K		10x12-bit	3x16-bit (12/12/14)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB, CAN		36(36)	LQFP48	2.0 to 3.6	
	STM32F103C6	•	32	10 K		10x12-bit	3x16-bit (12/12/14)		2 x WDG, RTC, 24-bit down counter	1xSPI, 1xI²C, 2xUSART (IrDA, ISO 7816), USB, CAN		36(36)	LQFP48	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
48 pins	**STM32F103C8**	•	64	20 K		10x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	Performance line: 72 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, 1 x high-speed USART 4.5 Mbit/s, motor control oriented PWM, 3 x ADC (triple sample and hold capability), -40 to 85 °C or -40 to 105 °C
	STM32F103CB	•	128	20 K		10x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		36(36)	LQFP48	2.0 to 3.6	
64 pins	**STM32F103R4**	•	16	6 K		16x12-bit	3x16-bit (12/12/14)		2 x WDG, RTC, 24-bit down counter	1xSPI, 2xI²C, 2xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F103R6	•	32	10 K		16x12-bit	3x16-bit (12/12/14)		2 x WDG, RTC, 24-bit down counter	1xSPI, 2xI²C, 2xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F103R8	•	64	20 K		16x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F103RB	•	128	20 K		16x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		51(51)	LQFP64	2.0 to 3.6	
	STM32F103RC	•	256	48 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²S, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		51(51)	LQFP64	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
64 pins	**STM32F103RD**	•	384	64 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²S, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		51(51)	LQFP64	2.0 to 3.6	
64 pins	**STM32F103RE**	•	512	64 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²S, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		51(51)	LQFP64	2.0 to 3.6	Performance line: 72 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, 1 x high-speed USART 4.5 Mbit/s, motor control oriented PWM, 3 x ADC (triple sample and hold capability), -40 to 85 °C or -40 to 105 °C
100 pins	**STM32F103V8**	•	64	20 K		16x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		80(80)	LQFP100, BGA100	2.0 to 3.6	
100 pins	**STM32F103VB**	•	128	20 K		16x12-bit	4x16-bit (16/16/18)		2 x WDG, RTC, 24-bit down counter	2xSPI, 2xI²C, 3xUSART (IrDA, ISO 7816)		80(80)	LQFP100, BGA100	2.0 to 3.6	
100 pins	**STM32F103VC**	•	256	48 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		80(80)	LQFP100, BGA100	2.0 to 3.6	
100 pins	**STM32F103VD**	•	384	64 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		80(80)	LQFP100, BGA100	2.0 to 3.6	

Microcontrollers

32-bit microcontroller families (cont'd)

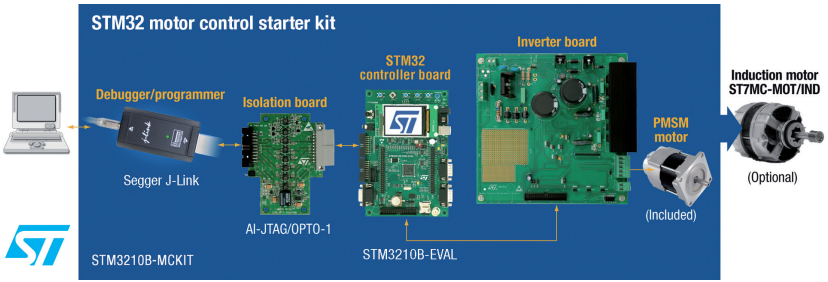
	Part numbers	Flash	Program memory (Kbytes)	RAM (bytes)	Data EEPROM (bytes)	A/D inputs	Timer functions			Serial interfaces	LVD levels	I/Os (High sink)	Packages	Supply voltage (V)	Special features
							12 or 16-bit {IC/OC/PWM}	8-bit {IC/OC/PWM}	Others						
STM32 (ARM® Cortex™-M3) - 32-bit microcontrollers															
100 pins	**STM32F103VE**	•	512	64 K		16x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		80(80)	LQFP100, BGA100	2.0 to 3.6	Performance line: 72 MHz CPU speed, EMI (100 and 144 pins), 2-channel DAC, V_{bat} pin, low-power features, embedded POR, PDR and PVD, 8 MHz and 40 kHz internal RC oscillators, 4-16 MHz main oscillator, dedicated 32 kHz oscillator, 1 x high-speed USART 4.5 Mbit/s, motor control oriented PWM, 3 x ADC (triple sample and hold capability), -40 to 85 °C or -40 to 105 °C
144 pins	**STM32F103ZC**	•	256	48 K		21x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		112(112)	LQFP144, BGA144	2.0 to 3.6	
	STM32F103ZD	•	384	64 K		21x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		112(112)	LQFP144, BGA144	2.0 to 3.6	
	STM32F103ZE	•	512	64 K		21x12-bit	8x16-bit (24/24/28)		2 x WDG, RTC, 24-bit down counter, 2x16-bit basic timers	3xSPI, 2xI²C, 5xUSART/UART (IrDA, ISO 7816), SDIO, USB, CAN		112(112)	LQFP144, BGA144	2.0 to 3.6	

Microcontrollers

Development tools

STM32 motor control starter kit

Complete development platform with ready-to-run motor control demo for quick, easy motor control feature evaluation with the STM32 (dedicated peripherals, dual ADC, sensorless mode, Cortex™-M3 core). The kit allows rapid implementation of sensor and sensorless vector-based control for three-phase PMSM and AC induction motors. It includes a PMSM motor, motor control board, device-specific evaluation board, opto-isolation board, J-Link (USB/ JTAG), motor control GUI, application and C sources. ST order code: STM3210B-MCKIT



Part number	Description
STM3210B MC library	Optimized, documented C firmware libraries for control of 3-phase PMSM or AC induction brushless motors. In torque or speed control with STM32, sensor mode, sensorless for PMSM. These are the standalone libraries of the STM3210B-MCKIT.
AI-JTAG/OPTO-1	The isolation board included in the STM3210B-MCKIT can also be ordered separately. It provides galvanic isolation between the J-Link from Segger and any high-voltage target board. The isolation board has two JTAG connectors (in/out). Available from distributors and ST sales offices.
STM3210B-MCKIT	Demonstration, evaluation and development kit for STM32 includes firmware, LCD user interface, STM3210B-EVAL board (control board), 7 A three-phase inverter board, isolation board (AI-JTAG/OPTO-1), Segger J-Link debugger/programmer and 24 VDC Shinano PMSM motor. Available from distributors and ST sales offices.
ST7MC-MOT/IND	240 V/800 W Selni 3-phase induction motor for use with STM3210B-MCKIT, or with the ST7MC-KIT using induction motor default values (for evaluation purposes).

ST7MC motor control starter kit

Complete platform for exploring and implementing the motor control features of the ST7MC family. ST order code: ST7MC-KIT/BLDC

Power

Power MOSFETs

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STV300NH02L	STripFET™ III	Brushed DC motor, brushless DC PMSM, high-frequency PWM universal motor drive, stepper motor	24	280	0.0015	PowerSO-10
STD150NH02LT4/-1	STripFET III		24	60	0.0035	DPAK/IPAK
STD100NH02LT4	STripFET III		24	60	0.0048	DPAK
STD17NF03LT4	STripFET II		30	17	0.05	DPAK
STN4NF03L	STripFET II		30	6.5	0.05	SOT-223
STD30NF03LT4	STripFET II		30	30	0.025	DPAK
STP40NF03L	STripFET II		30	40	0.022	TO-220
STB55NF03LT4	STripFET II		30	55	0.013	D²PAK
STD40NF3LLT4	STripFET II		30	40	0.011	DPAK
STL55NH3LL	STripFET III		30	50	0.0105	PowerFLAT™ 6 x 5
STL60NH3LL	STripFET III		30	55	0.009	PowerFLAT 6 x 5
STB85NF3LLT4	STripFET II		30	85	0.008	D²PAK
STL65N3LLH5	STripFET III		30	60	0.0075	PowerFLAT 6 x 5
STD100N3LF3	STripFET III		30	80	0.0055	DPAK
STU85NL3H5	STripFET V		30	80	0.0054	IPAK
STD85NL3H5	STripFET V		30	80	0.005	DPAK
STB200NF03T4	STripFET II		30	120	0.0036	D²PAK
STL100NH3LL	STripFET III		30	100	0.0035	PowerFLAT 6 x 5

Power

Power MOSFETs (cont'd)

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STL150N3LLH5	STripFET V	Brushed DC motor, brushless DC PMSM, high-frequency PWM universal motor drive, stepper motor	30	150	0.002	PowerFLAT 6 x 5
STP62NS04Z	SAFeFET™		33 (clamped)	62	0.015	TO-220
STP75NS04Z	SAFeFET		33 (clamped)	80	0.011	TO-220
STP100NF04	STripFET II		40	120	0.0046	TO-220
STP120NF04	STripFET II		40	120	0.0046	TO-220
STP200NF04	STripFET II		40	120	0.0037	TO-220
STP200NF04T4	STripFET II		40	120	0.0037	TO-220
STP270N4F3	STripFET III		40	120	0.0029	TO-220
STB270N4F3	STripFET III		40	160	0.0025	D²PAK
STV270N4F3	STripFET III		40	200	0.0015	PowerSO-10™
STD60NF55LT4	STripFET II		55	60	0.015	DPAK
STB60N55F3	STripFET III		55	80	0.0085	D²PAK
STD60N55F3	STripFET III		55	80	0.0085	DPAK
STB140NF55T4	STripFET II		55	80	0.008	D²PAK
STP140NF55	STripFET II		55	80	0.008	TO-220
STB80NF55-06T4	STripFET II		55	80	0.0065	D²PAK
STB150NF55T4	STripFET II		55	120	0.006	D²PAK
STP150NF55	STripFET II		55	120	0.006	TO-220

Power

Power MOSFETs (cont'd)

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STP180N55F3	STripFET III	Brushed DC motor, brushless DC PMSM, high-frequency PWM universal motor drive, stepper motor	55	120	0.0038	TO-220
STB180N55F3	STripFET III		55	120	0.0035	D²PAK
STV200N55F3	STripFET III		55	150	0.0025	PowerSO-10
STV250N55F3	STripFET III		55	250	0.0022	PowerSO-10
STD12NF06LT4	STripFET II		60	12	0.1	DPAK
STD12NF06T4	STripFET II		60	12	0.1	DPAK
STD20NF06LT4	STripFET II		60	20	0.04	DPAK
STD20NF06T4	STripFET II		60	20	0.04	DPAK
STP36NF06	STripFET II		60	30	0.04	TO-220
STD30NF06LT4	STripFET II		60	28	0.028	DPAK
STP45NF06	STripFET II		60	38	0.028	TO-220
STD35NF06T4	STripFET II		60	35	0.02	DPAK
STD35NF06LT4	STripFET II		60	35	0.0195	DPAK
STB55NF06LT4	STripFET II		60	55	0.018	D²PAK
STP55NF06	STripFET II		60	55	0.018	TO-220
STD60NF06T4	STripFET II		60	60	0.016	DPAK
STB60NF06LT4	STripFET II		60	60	0.014	D²PAK
STB75NF75LT4	STripFET II		75	75	0.011	D²PAK

Power

Power MOSFETs (cont'd)

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STB140NF75T4	STripFET II	Brushed DC motor, brushless DC PMSM, high-frequency PWM universal motor drive, stepper motor	75	120	0.0075	D²PAK
STP140NF75	STripFET II		75	120	0.0075	TO-220
STP160N75F3	STripFET III		75	120	0.004	TO-220
STW160N75F3	STripFET III		75	75	0.004	TO-247
STB160N75F3	STripFET III		75	75	0.0037	D²PAK
STB30NF10T4	STripFET II		100	35	0.045	D²PAK
STD25NF10T4	STripFET II		100	25	0.038	DPAK
STB35NF10T4	STripFET II		100	40	0.035	D²PAK
STB40NF10LT4	STripFET II		100	40	0.033	D²PAK
STP40NF10L	STripFET II		100	40	0.033	TO-220
STP40NF12	STripFET II		120	40	0.032	TO-220
STB40NF10T4	STripFET II		100	40	0.028	D²PAK
STP40NF10	STripFET II		100	40	0.028	TO-220
STB60NF10T4	STripFET II		100	80	0.023	D²PAK
STP60NF10	STripFET II		100	80	0.023	TO-220
STD60N10	Low voltage		100	60	0.0195	DPAK
STP70N10	Low voltage		100	65	0.0195	TO-220
STP80NF10/FP	STripFET II		100	80	0.015	TO-220/FP

Power

Power MOSFETs (cont'd)

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STB80NF10	STripFET II	Brushed DC motor, brushless DC PMSM, high-frequency PWM universal motor drive, stepper motor	100	80	0.015	D²PAK
STP80NF12	STripFET II		120	80	0.018	TO-220
STD17NF25	STripFET II	Brushless AC PMSM, stepper motor	250	15.7	0.165	DPAK
STP12NK30Z	SuperMESH™		300	9	0.4	TO-220
STP7NK30Z	SuperMESH		300	5.7	0.9	DPAK
STD4NK50ZD/-1	SuperFREDmesh™		500	3	2.7	DPAK/IPAK
STP4NK50ZD	SuperFREDmesh		500	3	2.7	TO-220
STD6NK50ZT4	SuperMESH		500	5.6	1.2	DPAK
STB9NK50ZT4	SuperMESH		500	7.2	0.85	D²PAK
STP12NM50N	MDmesh™ II		500	11	0.38	TO-220
STP14NK50Z	SuperMESH		500	14	0.38	TO-220
STP20NM50FD	FDmesh™		500	20	0.25	TO-220
STB21NM60N	MDmesh II		600	17	0.24	D²PAK
STP21NM50N	MDmesh II		500	18	0.19	TO-220
STW29NK50ZD	SuperFREDmesh		500	29	0.13	TO-247
STW45NM50FD	SuperFREDmesh		500	45	0.1	TO-247

Power

Power MOSFETs (cont'd)

Part Number	Description	Motor type	BV_{DSS} (V)	I_D (A)	$R_{DS(on)}$ max @ 10 V (Ω)	Package
STY60NM50	MDmesh II	Brushless AC PMSM, stepper motor	500	60	0.05	Max247™
STD5NK52ZD/-1	SuperFREDmesh		520	4.4	1.5	DPAK/IPAK
STP5NK52ZD	SuperFREDmesh		520	4.4	1.5	TO-220
STB8NM60D	FDmesh		600	8	1	D²PAK
STP13NK60Z	SuperMESH		600	13	0.55	TO-220
STP14NK60Z	SuperMESH		600	13.5	0.5	TO-220
STD11NM60ND	FDmesh II		600	10	0.45	DPAK
STP15NM60ND	FDmesh II		600	14	0.299	TO-220
STP21NM60N	MDmesh II		600	17	0.24	TO-220
STP21NM60ND	FDmesh II		600	17	0.22	TO-220
STP23NM60ND	FDmesh II		600	19	0.18	TO-220
STP25NM60ND	FDmesh II		600	21	0.16	TO-220
STP30NM60ND	FDmesh II		600	25	0.13	TO-220
STW43NM60ND	FDmesh II		600	35	0.095	TO-247
STW55NM60ND	FDmesh II		600	51	0.06	TO-247
STD6N62K3	SuperMESH3		620	1.5	1.28	DPAK

Power

IGBTs

Part number	Description	Breakdown voltage $V_{(br)ces}$ (V)	I_c @ 100 °C (A)	$V_{CE(sat)}$ (V) typ		Co-packed diode	Package	Motor type
				@ V_{GE} = 15 V Tj = 25 °C	@ V_{GE} = 15 V Tj = 125 °C			
STGB3NB60SD	Low drop	600	3	1.2 @ Ic = 3 A	1.1 @ Ic = 3 A	Yes	D²PAK	High-frequency PWM universal motor drive, single-phase induction motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM, switched reluctance motor
STGD3NB60SD	Low drop	600	3	1.2 @ Ic = 3 A	1.1 @ Ic = 3 A	Yes	DPAK	
STGD7NB60S	Low drop	600	7	1.2 @ Ic = 7 A	1.1 @ Ic = 7 A	No	DPAK	
STGF10NB60S	Low drop	600	7	1.35 @ Ic = 10 A	1.25 @ Ic = 10 A	No	TO-220 FP	
STGB10NB60S	Low drop	600	10	1.35 @ Ic = 10 A	1.25 @ Ic = 10 A	No	D²PAK	
STGP10NB60S(D)	Low drop	600	10	1.35 @ Ic = 10 A	1.25 @ Ic = 10 A	No (Yes)	TO-220	
STGF20NB60S	Low drop	600	13	1.25 @ Ic = 20 A	1.2 @ Ic = 20 A	No	TO-220 FP	
STGW35NB60S(D)	Low drop	600	35	1.25 @ Ic = 20 A	1.2 @ Ic = 20 A	No (Yes)	TO-247	
STGP19NC60SD	Medium frequency	600	20	1.55 @ Ic = 12 A	1.35 @ Ic = 12 A	Yes	TO-220	
STGF6NC60HD	Very fast	600	4	1.9 @ Ic = 3 A	1.7 @ Ic = 3 A	Yes	TO-220 FP	
STGB6NC60H(D)	Very fast	600	6	2.1 @ Ic = 6 A	1.6 @ Ic = 6 A	No (Yes)	D²PAK	
STGD6NC60H(D)	Very fast	600	6	1.9 @ Ic = 3 A	1.7 @ Ic = 3 A	No (Yes)	DPAK	
STGP6NC60H(D)	Very fast	600	6	1.9 @ Ic = 3 A	1.7 @ Ic = 3 A	No (Yes)	TO-220	
STGF7NC60HD	Very fast	600	6	1.85 @ Ic = 7 A	1.7 @ Ic = 7 A	Yes	TO-220 FP	
STGB10NC60HD	Very fast	600	10	1.9 @ Ic = 5 A	1.7 @ Ic = 5 A	Yes	D²PAK	
STGD10NC60H(D)	Very fast	600	10	1.9 @ Ic = 5 A	1.7 @ Ic = 5 A	No (Yes)	DPAK	
STGF10NC60HD	Very fast	600	10	1.9 @ Ic = 5 A	1.7 @ Ic = 5 A	Yes	TO-220 FP	
STGP10NC60H(D)	Very fast	600	10	1.9 @ Ic = 5 A	1.7 @ Ic = 5 A	No (Yes)	TO-220	

Power

IGBTs (cont'd)

Part number	Description	Breakdown voltage $V_{(br)ces}$ (V)	I_c @ 100 °C (A)	$V_{CE(sat)}$ (V) typ		Co-packed diode	Package	Motor type
				@ V_{GE} = 15 V Tj = 25 °C	@ V_{GE} = 15 V Tj = 125 °C			
STGB7NC60HD	Very fast	600	14	1.85 @ Ic = 7 A	1.7 @ Ic = 7 A	Yes	D²PAK	High-frequency PWM universal motor drive, single-phase induction motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM, switched reluctance motor
STGD7NC60H	Very fast	600	14	1.85 @ Ic = 7 A	1.7 @ Ic = 7 A	No	DPAK	
STGP7NC60H(D)	Very fast	600	14	1.85 @ Ic = 7 A	1.7 @ Ic = 7 A	No (Yes)	TO-220	
STGB19NC60HD	Very fast	600	19	1.8 @ Ic = 12 A	1.6 @ Ic = 12 A	Yes	D²PAK	
STGF19NC60HD	Very fast	600	19	1.8 @ Ic = 12 A	1.6 @ Ic = 12 A	Yes	TO-220 FP	
STGP19NC60H(D)	Very fast	600	19	1.8 @ Ic = 12 A	1.6 @ Ic = 12 A	No (Yes)	TO-220	
STGW19NC60HD	Very fast	600	19	1.8 @ Ic = 12 A	1.6 @ Ic = 12 A	Yes	TO-247	
STGB20NC60V	Very fast	600	30	1.8 @ Ic = 20 A	1.7 @ Ic = 20 A	No	D²PAK	
STGP20NC60V	Very fast	600	30	1.8 @ Ic = 20 A	1.7 @ Ic = 20 A	No	TO-220	
STGW20NC60V(D)	Very fast	600	30	1.8 @ Ic = 20 A	1.7 @ Ic = 20 A	No (Yes)	TO-247	
STGW30NC60VD	Very fast	600	40	1.8 @ Ic = 20 A	1.7 @ Ic = 20 A	Yes	TO-247 LL	
STGW39NC60V(D)	Very fast	600	40	1.8 @ Ic = 30 A	1.7 @ Ic = 30 A	No (Yes)	TO-247	
STGW40NC60V	Very fast	600	50	1.9 @ Ic = 40 A	1.7 @ Ic = 40 A	No	TO-247	
STGY40NC60VD	Very fast	600	50	1.9 @ Ic = 40 A	1.7 @ Ic = 40 A	Yes	Max247	
STGF8NC60KD	Very fast short-circuit rugged	600	4	2.2 @ Ic = 3 A	1.8 @ Ic = 3 A	Yes	TO-220 FP	
STGB8NC60K(D)	Very fast short-circuit rugged	600	8	2.2 @ Ic = 3 A	1.8 @ Ic = 3 A	No (Yes)	D²PAK	
STGD8NC60KD	Very fast short-circuit rugged	600	8	2.2 @ Ic = 3 A	1.8 @ Ic = 3 A	Yes	DPAK	
STGP8NC60K(D)	Very fast short-circuit rugged	600	8	2.2 @ Ic = 3 A	1.8 @ Ic = 3 A	No (Yes)	TO-220	

Power

IGBTs (cont'd)

Part number	Description	Breakdown voltage $V_{(br)ces}$ (V)	I_c @ 100 °C (A)	$V_{CE(sat)}$ (V) typ		Co-packed diode	Package	Motor type
				@ V_{GE} = 15 V Tj = 25 °C	@ V_{GE} = 15 V Tj = 125 °C			
STGF10NC60KD	Very fast short-circuit rugged	600	6	2.2 @ Ic = 5 A	1.8 @ Ic = 5 A	Yes	TO-220 FP	High-frequency PWM universal motor drive, single-phase induction motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM, switched reluctance motor
STGD10NC60K(D)	Very fast short-circuit rugged	600	10	2.2 @ Ic = 5 A	1.8 @ Ic = 5 A	No (Yes)	DPAK	
STGP10NC60K(D)	Very fast short-circuit rugged	600	10	2.2 @ Ic = 5 A	1.8 @ Ic = 5 A	No (Yes)	TO-220	
STGF14NC60KD	Very fast short-circuit rugged	600	7	2.0 @ Ic = 7 A	1.8 @ Ic = 7 A	Yes	TO-220 FP	
STGB14NC60K(D)	Very fast short-circuit rugged	600	14	2.0 @ Ic = 7 A	1.8 @ Ic = 7 A	No (Yes)	D²PAK	
STGD14NC60K	Very fast short-circuit rugged	600	14	2.0 @ Ic = 7 A	1.8 @ Ic = 7 A	No	DPAK	
STGP14NC60KD	Very fast short-circuit rugged	600	14	2.0 @ Ic = 7 A	1.8 @ Ic = 7 A	Yes	TO-220	
STGF19NC60KD	Very fast short-circuit rugged	600	10	2.0 @ Ic = 12 A	1.8 @ Ic = 12 A	Yes	TO-220 FP	
STGB19NC60K(D)	Very fast short-circuit rugged	600	20	2.0 @ Ic = 12 A	1.8 @ Ic = 12 A	No (Yes)	D²PAK	
STGP19NC60K(D)	Very fast short-circuit rugged	600	20	2.0 @ Ic = 12 A	1.8 @ Ic = 12 A	No (Yes)	TO-220	
STGB30NC60K	Very fast short-circuit rugged	600	26	2.1 @ Ic = 20 A	1.9 @ Ic = 20 A	No	D²PAK	
STGP30NC60K	Very fast short-circuit rugged	600	26	2.1 @ Ic = 20 A	1.9 @ Ic = 20 A	No	TO-220	
STGW30NC60KD	Very fast short-circuit rugged	600	28	2.1 @ Ic = 20 A	1.9 @ Ic = 20 A	Yes	TO-247	
STGW40NC60KD	Very fast short-circuit rugged	600	38	2.1 @ Ic = 30 A	1.9 @ Ic = 30 A	Yes	TO-247	
STGW30N120KD	Very fast short-circuit rugged	1200	30	2.8 @ Ic = 20 A	2.7 @ Ic = 20 A	Yes	TO-247	Three-phase induction motor, brushless DC PMSM, brushless AC PMSM, switched reluctance motor

Power

IGBT modules

Part number	Description	Breakdown voltage $V_{(br)ces}$ (V)	I_c @ 80 °C (A)	$V_{CE(sat)}$ (V) typ		Package	Motor type
				@ V_{GE} = 15 V Tj = 25 °C	@ V_{GE} = 15 V Tj = 125 °C		
STG3P2M10N60B	1-phase bridge rectifier + 3-phase inverter	600	10	1.85 @ Ic = 7 A	1.7 @ Ic = 7 A	SEMITOP®2	High-frequency PWM universal motor drive, single-phase induction motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM, switched reluctance motor
STG3P3M25N60	3-phase inverter	600	25	1.85 @ Ic = 20 A	1.7 @ Ic = 20 A	SEMITOP3	

AC switches

Part number	Description	RMS on-state current	V_{rrm}, V_{drm} (V)	V_{tm} (V) @ I_{tm} (A)	I_{gt} (mA)	Package	Motor type
ACS120-7ST	ACS switch	2	700	1.3 @ 2.8	10	TO-220AB	Universal motor, single-phase induction motor
ACST4-7SB/FP	ACST switch	4	700	1.5 @ 5.6	10	DPAK/TO-220FPAB	Universal motor, single-phase induction motor
ACST6-7ST/G	ACST switch	6	700	1.4 @ 2.1	10	TO-220AB/D²PAK	Universal motor, single-phase induction motor
ACST8-8CFP/CG	ACST switch	8	800	1.5 @ 11	30	TO-220FPAB/D²PAK	Universal motor, single-phase induction motor
ACS102-6TA/T1	ACS switch	0.2	600	1.1 @ 0.3	5	TO-92/SO-8	Universal motor, single-phase induction motor
ACS302-5T3	ACS switch	0.2	500	1.2 @ 0.3	5	SO-20	Universal motor, single-phase induction motor
ACS108-6A/SN	ACS switch	0.8	600	1.3 @ 1.1	10	TO-92/SOT-223	Universal motor, single-phase induction motor
ACS110-7SB2/N	ACS switch	1	700	1.3 @ 1.4	10	DIP-8/SOT-223	Universal motor, single-phase induction motor

Power

Triacs

Part number	Description	RMS on-state current	V_{rrm}, V_{drm} (V)	V_{tm} (V) @ I_{tm} (A)	I_{gt} (mA)	Package	Motor type
BTB08-600SW	Logic level Triac	8	600	1.55 @ 11	10	TO-220AB	Universal motor, single-phase induction motor
BTB08-600CW	Snubberless Triac	8	600	1.55 @ 11	35	TO-220AB	Universal motor, single-phase induction motor
BTB12-600CW	Snubberless Triac	12	600	1.55 @ 17	35	TO-220AB	Universal motor, single-phase induction motor
BTB16-600CW	Snubberless Triac	16	600	1.55 @ 22.5	35	TO-220AB	Universal motor, single-phase induction motor
BTB24-600CW	Snubberless Triac	25	600	1.55 @ 35	35	TO-220AB	Universal motor, single-phase induction motor
BTB26-600BW	Snubberless Triac	25	600	1.55 @ 35	50	TOP3	Universal motor, single-phase induction motor
T1635H-6T	High Tj snubberless Triac	16	600	1.85 @ 16	35	TO-220AB	Universal motor, single-phase induction motor
T1635H-6I	High Tj snubberless Triac	16	600	1.85 @ 16	35	TO-220INS	Universal motor, single-phase induction motor
T1035H-6T	High Tj snubberless Triac	10	600	1.85 @ 10	35	TO-220AB	Universal motor, single-phase induction motor
T1035H-6I	High Tj snubberless Triac	10	600	1.55 @ 10	35	TO-220INS	Universal motor, single-phase induction motor
T1235-600G	High-performance module	12	600	1.55 @ 17	35	D²PAK	Universal motor, single-phase induction motor
T1635-600G	High-performance module	16	600	1.55 @ 22.5	35	D²PAK	Universal motor, single-phase induction motor
T2535-600G	High-performance module	25	600	1.55 @ 35	35	D²PAK	Universal motor, single-phase induction motor
Z00607MA	Standard Triac	0.8	600	1.5 @ 1.1	7	TO-92	Multiple-winding induction motor (fans)

Power

Diacs

Part number	Description	VBO (nom) (V)	V_{bo} min (V)	V_{bo} max (V)	I_{bo} max (µA)	Package	Motor type
DB3	Diac	32	28	36	50	DO-35	Universal motor

Ultrafast rectifiers

Part number	Description	IF (av) (A)	V_{rm} (V)	V_f (V) @ I_f (A)	t_{rr} max (ns) 50 A/µs	Package	Motor type
STTH3R06	600 V Turbo 2	3	600	1.25 @ 3	30	DO-201AD	Three-phase motor
STTH506D	600 V Turbo 2	5	600	1.4 @ 5	50	TO-220AC	Three-phase motor
STTH806D	600 V Turbo 2	8	600	1.4 @ 8	50	TO-220AC	Three-phase motor
STTH803D	300 V	8	300	1 @ 8	35	TO-220AC	Three-phase motor
STTH506D	600 V Turbo 2	5	600	1.4 @ 5	50	TO-220AC	Brushed DC motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM
STTH15R06D	600 V Turbo 2	15	600	1.8 @ 15	40	TO-220AC	Brushed DC motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM
STTH806D	600 V Turbo 2	8	600	1.4 @ 8	50	TO-220AC	Brushed DC motor, three-phase induction motor, brushless DC PMSM, brushless AC PMSM
STTH8L06D	600 V Turbo 2	8	600	1.05 @ 8	105	TO-220AC	Freewheel for PWM motor drive
STTH8L06FP	600 V Turbo 2	8	600	1.05 @ 8	105	TO-220FPAC	Freewheel for PWM motor drive
STTH3006D	600 V Turbo 2	2 x 30	600	1.4 @ 30	70	TO-220AC	Freewheel for PWM motor drive

Power

Protection devices - Transil™

Part number	Description	Power (W)	V_{rm} (V)	V_{br} (V) @ 1mA	V_{cl} (V) @ I_{pp} (A)	Package	Motor type
SMBJ15A-TR	600 W Transil diode	600	15	16.7	24.4 @ 25.1	SMB	DC inverters, switches or IC protections for all motor types
SMBJ28A-TR	600 W Transil diode	600	28	31.1	45.4 @ 13.8	SMB	
SMBJ48A-TR	600 W Transil diode	600	48	53.3	77.4 @ 8.1	SMB	
SMCJ15A-TR	1500 W Transil™ diode	1500	15	16.7	24.4 @ 64	SMC	
SMCJ188A-TR	1500 W Transil™ diode	1500	188	209	328 @ 4.6	SMC	
BZW06-376B	600 W Transil™ diode	600	376	418	603 @ 1.3	F126	
SMBJ58A-TR	600 W Transil diode	600	58	67.8	121 @ 33	SMB	
SMA6J58-TR	600 W Transil diode	600	58	67.8	100 @ 33	SMA	
SMBJ188A-TR	600 W Transil diode	600	188	220	388 @ 10.3	SMB	
SMA6J188A-TR	600 W Transil diode	600	188	220	323 @ 10.3	SMA	

Analog

ASSP for motor control - controllers

Part number	Package	Supply voltage (V)	Features	Stepping mode	Application
L297D	SO-20	5	PWM current controller, stepper motor sequence generator, enable input, reset and home input	Full step, half step, wave mode	Stepper
L297	DIP-20	5	PWM current controller, stepper motor sequence generator, enable input, reset and home input	Full step, half step, wave mode	Stepper

Analog

ASSP for motor control - controllers (cont'd)

Part number	Package	Supply voltage (V)	Features	Stepping mode	Application
L6506D	SO-20	5	PWM current controller, enable pin, sync pin	-	DC and stepper motor
L6506	DIP-18	5	PWM current controller, enable pin, sync pin	-	DC and stepper motor

ASSP for motor control - integrated power stages

Part number	Package	Description	Supply voltage range (V)	Max RMS current capability (A)	Typ $R_{DS(on)}$ (Ω)	Typ $V_{CE(sat)}$ (V)	Features	Application
L6201	SO-20	DMOS full-bridge driver	12 to 48	1	0.3	-	Cross-conduction protection, thermal shut down, enable pin, sense pin	DC and stepper motor
L6201PS	PowerSO-20	DMOS full-bridge driver	12 to 48	4	0.3	-		DC and stepper motor
L6202	PowerDIP-18	DMOS full-bridge driver	12 to 48	1.5	0.3	-		DC and stepper motor
L6203	MULTIWATT11	DMOS full-bridge driver	12 to 48	4	0.3	-		DC and stepper motor
L293B	DIP-16	Dual bipolar full-bridge	4.5 to 36	1 each channel	-	1.2	Over-temperature protection, chip enable	DC and stepper motor
L293E	DIP-20	Dual bipolar full-bridge	4.5 to 36	1 each channel	-	1.2	Over-temperature protection, Chip enable, sense inputs	DC and stepper motor
L293D	DIP-16	Dual bipolar full-bridge	4.5 to 36	0.6 each channel	-	1.2	Over-temperature protection, enable facility	DC and stepper motor
L293DD	SO-20	Dual bipolar full-bridge	4.5 to 36	0.6 each channel	-	1.2		DC and stepper motor
L2293Q	QFN32L (5x5)	Dual bipolar full-bridge	2.8 to 36	0.6 each channel	-	1.2		DC and stepper motor
L298N	MULTIWATT15 Vert.	Dual bipolar full-bridge	4.8 to 46	2 each channel	-	2		DC and stepper motor
L298HN	MULTIWATT15 Horiz.	Dual bipolar full-bridge	4.8 to 46	2 each channel	-	2		DC and stepper motor
L298P	PowerSO-20	Dual bipolar full-bridge	4.8 to 46	2 each channel	-	2		DC and stepper motor

Analog

ASSP for motor control - integrated power stages (cont'd)

Part number	Package	Description	Supply voltage range (V)	Max RMS current capability (A)	Typ $R_{DS(on)}$ (Ω)	Typ $V_{CE(sat)}$ (V)	Features	Application
L6225D	SO-20	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-	Over-temperature, overcurrent protection, UVLO, enhanced power package (PD)	DC and stepper motor
L6225PD	PowerSO-20	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6225N	DIP-20	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6226D	SO-24	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-	Over-temperature protection, adjustable overcurrent protection, UVLO, enhanced power package (PD)	DC and stepper motor
L6226PD	PowerSO-36	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6226N	DIP-24	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6226Q	QFN32L (5x5)	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6227D	SO-24	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-	Over-temperature protection, overcurrent protection, UVLO, dual independent PWM current controller, enhanced power package (PD)	DC and stepper motor
L6227PD	PowerSO-36	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6227N	DIP-24	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6227Q	QFN32L (5x5)	Dual DMOS full-bridge	8 to 52	1.4 each channel	0.7	-		DC and stepper motor
L6205D	SO-20	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-	Over-temperature protection, adjustable overcurrent protection, UVLO, enhanced power package (PD)	DC and stepper motor
L6205PD	PowerSO-20	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6205N	DIP-20	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6206D	SO-24	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6206PD	PowerSO-36	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6206N	DIP-24	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor

Analog

ASSP for motor control - integrated power stages (cont'd)

Part number	Package	Description	Supply voltage range (V)	Max RMS current capability (A)	Typ $R_{DS(on)}$ (Ω)	Typ $V_{CE(sat)}$ (V)	Features	Application
L6207D	SO-24	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-	Over-temperature protection, overcurrent protection, UVLO, dual independent PWM current controller, enhanced power package (PD)	DC and stepper motor
L6207PD	PowerSO-36	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6207N	DIP-24	Dual DMOS full-bridge	8 to 52	2.8 each channel	0.3	-		DC and stepper motor
L6234	DIP-20	Three DMOS half-bridge	7 to 52	2.8 each channel	0.3	-	Over-temperature protection, cross-conduction protection, input and enable pin available for each channel, enhanced power package (PD)	Three-phase motor driver
L6234PD	PowerSO-20	Three DMOS half-bridge	7 to 52	2.8 each channel	0.3	-		Three-phase motor driver

ASSP for motor control - drivers

Part number	Package	Description	Supply voltage range (V)	Max RMS current capability (A)	Typ $R_{DS(on)}$ (Ω)	Features	Stepping mode
L6228D	SO-24	Fully integrated stepper motor driver	8 to 52	1.4 each channel	0.7	Over-temperature protection, non-dissipative overcurrent protection, UVLO, dual independent PWM current controller, fast/slow decay mode selection, decoding logic for stepper motor, integrated fast freewheeling diodes	Full step, half step, wave mode, microstepping capability with two 90° sine wave voltage inputs
L6228PD	PowerSO-36		8 to 52	1.4 each channel	0.7		
L6228N	DIP-24		8 to 52	1.4 each channel	0.7		
L6228Q	QFN32L (5x5)		8 to 52	1.4 each channel	0.7		
L6208D	SO-2 4		8 to 52	2.8 each channel	0.3		
L6208PD	PowerSO-36		8 to 52	2.8 each channel	0.3		
L6208N	DIP-24		8 to 52	2.8 each channel	0.3		

Analog

ASSP for motor control - drivers (cont'd)

Part number	Package	Description	Supply voltage range (V)	Max RMS current capability (A)	Typ $R_{DS(on)}$ (Ω)	Features	Stepping mode
L6229D	SO-24	Fully integrated 3 phase BLDC motor driver	8 to 52	1.4 each channel	0.7	Over-temperature protection, non-dissipative overcurrent protection, UVLO, PWM current controller, tacho output for speed loop, diagnostic output, brake function, 60 °C and 120 °C Hall effect decoding logic, integrated fast freewheeling diodes	
L6229PD	PowerSO-36		8 to 52	1.4 each channel	0.7		
L6229N	DIP-24		8 to 52	1.4 each channel	0.7		
L6235D	SO-24		8 to 52	2.8 each channel	0.3		
L6235PD	PowerSO-36		8 to 52	2.8 each channel	0.3		
L6235N	DIP-24		8 to 52	2.8 each channel	0.3		

MOSFET/IGBT drivers - triple low-side drivers

Part number	Package	V_{CC} (V)	Output source / sink current (A)	Features
TD310ID	SO-16	18	0.6 each channel	Sense comparator, uncommitted op-amp, adjustable UVLO, standby mode, channel paralleling capability
TD310IN	DIP-16	18	0.6 each channel	Sense comparator, uncommitted op-amp, adjustable UVLO, standby mode, channel paralleling capability

MOSFET/IGBT drivers - single drivers

Part number	Package	V_{CC} (V)	Output source / sink current (A)	Features
TD220ID	SO-8	18	-1/1 peak, -0.2/0.2 continuous	3.3 V voltage regulator, UVLO protection, low start-up current
TD220IDT	DIP-8	18	-1/1 peak, -0.2/0.2 continuous	3.3 V voltage regulator, UVLO protection, low start-up current

Analog

MOSFET/IGBT drivers - single drivers (cont'd)

Part number	Package	V_{CC} (V)	Output source / sink current (A)	Features
TD221ID	SO-8	18	-1/1 peak, -0.2/0.2 continuous	5 V voltage regulator, UVLO protection, low start-up current
TD221IDT	DIP-8	18	-1/1 peak, -0.2/0.2 continuous	5 V voltage regulator, UVLO protection, low start-up current
TD350ID	SO-14	28	0.75 to 1.2	UVLO protection, active Miller clamp feature, desaturation detection, fault status output, input compatible with pulse transformer or optocoupler, separate sink and source output
TD351ID	SO-8	28	0.75 to 1.0	UVLO protection, active Miller clamp feature, input compatible with pulse transformer or optocoupler
TD351IN	DIP-8	28	0.75 to 1.0	UVLO protection, active Miller clamp feature, input compatible with pulse transformer or optocoupler
TD352ID	SO-8	28	0.75 to 1.0	UVLO protection, active Miller clamp feature, adjustable and accurate turn-on delay, desaturation detection
TD352IN	DIP-8	28	0.75 to 1.0	UVLO protection, active Miller clamp feature, adjustable and accurate turn-on delay, desaturation detection

MOSFET/IGBT drivers - high-voltage half-bridge drivers

Part number	Package	Output voltage V_{out} (V)	Output source / sink current (mA)	V_{CC} (V)	Deadtime	Features
L6384ED	SO-8	600	400 /-650	18	Set by external R 0.5 - 5 ms	Single input plus SD, dual function DT/SD, integrated bootstrap diode, V_{CC} clamp, low-side UVLO
L6384E	DIP-8	600	400 /-650	18	Set by external R 0.5 - 5 ms	
L6385ED	SO-8	600	400 /-650	18	No	Dual inputs, integrated bootstrap diode, high-side and low-side UVLO
L6385E	DIP-8	600	400 /-650	18	No	
L6386ED	SO-14	600	400 /-650	18	Internal 100 ns	Dual inputs, integrated bootstrap diode, high-side (11.9 V) and low-side (12 V) UVLO, sense comparator, dedicated SD pin, two NC pins between OUT and LVG
L6386AD	SO-14	600	400 /-650	18	Internal 100 ns	Dual inputs, Integrated bootstrap diode, high-side (9.5 V) and low-side (9.6 V) UVLO, sense comparator, dedicated SD pin, two NC pins between OUT and LVG

Analog

MOSFET/IGBT drivers - high-voltage half-bridge drivers (cont'd)

Part number	Package	Output voltage V_{out} (V)	Output source / sink current (mA)	V_{CC} (V)	Deadtime	Features
L6386E	DIP-14	600	400 /-650	18	Internal 100 ns	Dual inputs, integrated bootstrap diode, high-side (11.9 V) and low-side (12 V) UVLO, sense comparator, dedicated SD pin, two NC pins between OUT and LVG
L6387ED	SO-8	600	400 /-650	18	Internal 100 ns	Dual inputs, integrated bootstrap diode, low-side UVLO, interlocking logic for cross-conduction prevention
L6387E	DIP-8	600	400 /-650	18	Internal 100 ns	
L6388ED	SO-8	600	400 /-650	18	Fixed 320 ns	Dual inputs, integrated bootstrap diode, high-side and low-side UVLO, 3.3 V, 5 V, 15 V logic compatible, interlocking logic for cross-conduction prevention
L6388E	DIP-8	600	400 /-650	18	Fixed 320 ns	
L6390	DIP-16	600	270 /-430	20	Adjustable (0.5 to 5 µs)	Dual out-of-phase inputs, integrated bootstrap diode, 3.3 V, 5 V, 15 V logic compatible, interlocking logic for cross-conduction prevention, comparator for protections, op-amp for advanced current sensing, smart / fast shutdown internal block, dedicated pin for external SD, undervoltage lockout on V_{Boot} and V_{CC}
L6390D	SO-16	600	270 /-430	20	Adjustable (0.5 to 5 µs)	
L6392	DIP-14	600	270 /-430	20	Adjustable (0.5 to 5 µs)	Dual out-of-phase inputs, integrated bootstrap diode, 3.3 V, 5 V, 15 V logic compatible, interlocking logic for cross-conduction prevention, op-amp for advanced current sensing, dedicated pin for external SD, undervoltage lockout on V_{Boot} and V_{CC}
L6392D	SO-14	600	270 /-430	20	Adjustable (0.5 to 5 µs)	
L6393	DIP-14	600	270 /-430	20	Adjustable (0.5 to 5 µs)	Single input, integrated bootstrap diode, 3.3 V, 5 V, 15 V logic compatible, interlocking logic for cross-conduction prevention, comparator for protections, dedicated pin for external SD, undervoltage lockout on V_{Boot} and V_{CC}
L6393D	SO-14	600	270 /-430	20	Adjustable (0.5 to 5 µs)	

Power management - voltage regulators

Part number	Description	Temperature (°C) max	I_{out} (A)	Package
L78xx	Standard positive-voltage regulator	150	1.5	TO-220, DPAK, D^2PAK
LM317xx	1.2 V to 37 V adjustable standard positive-voltage regulator	125	1.5	TO-220, TO-220 isolated, D^2PAK

Analog

Power management - voltage regulators (cont'd)

Part number	Description	Temperature (°C) max	I_{out} (A)	Package
LD1084/5/6xx	5/3/1.5 A low-drop positive-voltage regulator	125	5/3/1.5	TO-220, D^2PAK
ST1S10xx	Switching step-down voltage regulator	85	3	MLP3x3

Power management - microprocessor supervisors

Part number	Description	Watchdog timeout (s)	Reset pulse width min (ms)	Voltage threshold (V)	Temperature range (°C)	Package
STM6321xWY6F	Watchdog with open-drain low reset	1.6	140	4.63, 4.38, 3.08, 2.93, 2.63	-40 to +85	SOT23-5
STM6822xWY6F	Watchdog with open-drain low reset and manual reset	1.6	140	4.63, 4.38, 3.08, 2.93, 2.64	-40 to +85	SOT23-5
STM6823xWY6F	Watchdog with push-pull low reset and manual reset	1.6	140	4.63, 4.38, 3.08, 2.93, 2.65	-40 to +85	SOT23-5
STM6824xWY6F	Watchdog with push-pull low reset	1.6	140	4.63, 4.38, 3.08, 2.93, 2.66	-40 to +85	SOT23-5
STWD100NPWY3F	Watchdog with chip enable with voltage range 2.7 to 5.5 V	3.4	140		-40 to +125	SOT23-5

Power management - reset ICs

Part number	Description	Reset pulse width (ms)	Voltage threshold (V)	Temperature range (°C)	Package
STM809xWX6F	Reset circuit	140	4.63, 4.38, 3.08, 2.93, 2.63	-40 to +85	SOT23-3
STM1813xWX6F	Low-power reset circuit	100	4.63, 4.38	-40 to +105	SOT23-3
STM1818xWX6F	Low-power reset circuit	100	3.08, 2.93, 2.63	-40 to +105	SOT23-3

Analog

Power management - voltage detectors

Part number	Description	Reset pulse width	Voltage threshold	Temperature range (°C)	Package
STM1061Nxy	Low-power voltage detector		1.6 V to 5.5 V by increments of 0.1 V	-40 to +85	SOT23-3

Temperature sensors

Part number	Description	Accuracy	Operating voltage (V)	Operating temperature (°C)	Package
STLM20W87F	Analog temperature sensor	+/-1.5 °C @ 25 °C	2.4 to 5.5	-55 to +130	SC70-5
STTS75M2	Digital temperature sensor	+/- 2 °C across - 25 to 100 °C	2.7 to 5.5	-55 to + 125	SO-8

Silicon oscillators

Part number	Description	Frequency (MHz)	Accuracy	Voltage (V)	Temperature range (°C)	Package
STCL1120YBFCWY5	High-frequency silicon oscillator	12	+/-1.5%	4.5 to 5.5	-20 to +85	SOT23-5

Analog

Operational amplifiers

Part number	Description	Input/output(2)	Supply voltage min-max (V)	Input offset voltage max (mV)	Slew rate typ (µV/s)	GBP (typ (MHz)	I_{cc} typ per operator (mA)	Package
TSV992	Low-voltage CMOS input, rail-to-rail op-amp	RR/RR	2.5 to 5.5	1.5/4.5	10	20	0.82	SO8, MSO8
TSV994	Low-voltage CMOS input, rail-to-rail op-amp	RR/RR	2.5 to 5.5	1.5/4.5	10	20	0.82	SO14, TSSOP14
TSH24	High-performance bipolar op-amp	S-/STD	3 to 30	2.5	15	25	2.15	DIP14, SO14
TSH22	High-performance bipolar op-amp	S-/STD	3 to 30	2.5	15	25	2.15	DIP8, SO8
TS274	Micropower op-amp with wide range of input offset voltages	S-/STD	3 to 16	10/5	5.5	3.5	1	DIP14, SO14
TS272	Micropower op-amp with wide range of input offset voltages	S-/STD	3 to 16	10/5/2	5.5	3.5	1	DIP8, SO8

Current-sensing amplifiers

Part number	Description	Gain	Common-mode operating voltage (V)	Supply voltage operating range (V)	Maximum supply current (µA)	Operating temperature (°C)	Package
TSC101AIYLT	High-side current-sense amplifier	20 V/V	2.8 to 30	4 to 24	300	-40 to +125	SOT23-5
TSC101BIYLT	High-side current-sense amplifier	50 V/V	2.8 to 30	4 to 24	300	-40 to +125	SOT23-5
TSC101CIYLT	High-side current-sense amplifier	100 V/V	2.8 to 30	4 to 24	300	-40 to +125	SOT23-5
TSC102IY(3)	High-side current-sense amplifier plus signal conditioning amplifier	20 V/V, adjustable	2.8 to 30	3.5 to 5.5	450	-40 to +125	TSSOP8, SO8

(2) STD: Standard, S-: single supply, negative rail, RR: rail-to-rail
(3) Full Production Q1 09

Analog

Comparators

Part number	Description	Input/output(2)	Supply voltage min-max (V)	Input offset voltage max (mV)	Supply current I_{cc} (typ) (µA)	Response time (µs)	Package
TS374	Low-power CMOS voltage comparator	S-/STD	3 to 16	10	150	0.6	DIP8, SO8
TS372	Low-power CMOS voltage comparator	S-/STD	3 to 16	10	150	0.6	DIP14, SO14

MEMS

Part number	Full Scale (g)	V_{dd} (V)	Number of axes	Bandwidth (Hz)	Output(5)	Package
LIS244AL	±2	3.0	2	2.0	Analog	LGA 4x4x1.5 mm^3
LIS244ALH	±2/±6	3.3	2	2.0	Analog	LGA 4x4x1.5 mm^3
LIS344AL	±3.5	3.0	3	2.0	Analog	LGA 4x4x1.5 mm^3
LIS344ALH	±2/±6	3.3	3	1.8	Analog	LGA 4x4x1.5 mm^3
LIS302SG(4)	±2	3.3	3	2.0	Analog	LGA 3x5x1 mm^3
LIS302DL	±2/±8	2.5	3	400(6)	Digital (8 bit)	LGA 3x5x0.9
LIS3LV02DL	±2/±6	2.5	3	2560(6)	Digital (12 bit)	LGA

(2) STD: Standard, S-: single supply, negative rail, RR: rail-to-rail
(4) Available in two other configurations: LIS302SG2 and LIS302SG3. Differences include calibration/operating voltage and sensitivity values.
(5) Ratiometric to supply voltage
(6) Output data rate (ODR)

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