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### What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

### Applications of "[Embedded - Microcontrollers](#)"

#### Details

Product Status	Obsolete
Core Processor	C166SV2
Core Size	16/32-Bit
Speed	80MHz
Connectivity	CANbus, EBI/EMI, I <sup>2</sup> C, LINbus, SPI, SSC, UART/USART, USI
Peripherals	I <sup>2</sup> S, POR, PWM, WDT
Number of I/O	38
Program Memory Size	320KB (320K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	42K x 8
Voltage - Supply (Vcc/Vdd)	3V ~ 5.5V
Data Converters	A/D 9x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 125°C (TA)
Mounting Type	Surface Mount
Package / Case	64-LQFP Exposed Pad
Supplier Device Package	PG-LQFP-64-22
Purchase URL	<a href="https://www.e-xfl.com/product-detail/infineon-technologies/xc2030n40f80laakxuma1">https://www.e-xfl.com/product-detail/infineon-technologies/xc2030n40f80laakxuma1</a>



Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 8-bit</b>				
<b>XC800 Family</b>				
<b>XC866L Series</b>				
(cont'd)				
SAK-XC866L-4FRA 3V BE-Step	SP000442054	XC866L4FRA3VBEKXUMA1	PG-TSSOP-38-1	as SAK-XC866L-4FRA, 3-V power supply, tape & reel
SAL-XC866L-4FRA 3V BE-Step	SP000908378	XC866L4FRA3VBELXUMA1	PG-TSSOP-38-1	as SAK-XC866L-4FRA 3V, -40°C to 150°C, tape & reel
SAL-XC866L-4FRA 5V BE-Step	SP000876778	XC866L4FRA5VBELXUMA1	PG-TSSOP-38-1	as SAL-XC866L-4FRA, 5-V power supply, tape & reel
SAK-XC866L-4FRI BE-Step	SP000245787	XC866L4FRIBEKXUMA1	PG-TSSOP-38-1	as SAK-XC866L-4FRA, industry quality level, tape & reel

**XC874 Series**

SAK-XC874-13FVA 5V AC-Step	SP000858084	XC87413FVA5VACKXUMA1	PG-VQFN-48-1	High performance XC800 core, based on industry standard 8051 architecture, 52-Kbyte flash memory, automotive quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, 26.7-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC874-16FVA 5V AC-Step	SP000858096	XC87416FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874CM-13FVA 5V, 64-Kbyte flash memory, tape & reel
SAK-XC874CLM-16FVA5V AC-Step	SP000858092	XC874CLM16FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874-13FVA 5V, 64-Kbyte flash memory, with LIN BSL support , with CAN- and MDU module, tape & reel
SAK-XC874CM-13FVA 5V AC-Step	SP000793736	XC874CM13FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874CLM-16FVA 5V, 52-Kbyte flash memory, no LIN BSL support, tape & reel
SAK-XC874CM-16FVA 5V AC-Step	SP000858090	XC874CM16FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874CM-13FVA 5V, 64-Kbyte flash memory, tape & reel
SAK-XC874LM-13FVA 5V AC-Step	SP000858082	XC874LM13FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874CLM-16FVA 5V, 52-Kbyte flash memory, no CAN module, tape & reel
SAK-XC874LM-16FVA 5V AC-Step	SP000858086	XC874LM16FVA5VACKXUMA1	PG-VQFN-48-1	as SAK-XC874LM-13FVA 5V, 64-Kbyte flash memory, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 8-bit</b>				
<b>XC800 Family</b>				
<b>XC886CM Series</b>				
(cont'd)				
SAL-XC886CM-8FFA AC-Step	SP000844270	XC886CM8FFA5VACLXUMA1	PG-TQFP-48	as SAA-XC886CM-8FFA, -40°C to 150°C, tape & reel
SAK-XC886CM-8FFA 5V AC-Step	SP000606964	XC886CM8FFA5VACKXUMA1	PG-TQFP-48	as SAF-XC886CM-8FFA, 40°C to 125°C, tape & reel
SAF-XC886CM-8FFI 5V AC-Step	SP000607014	XC886CM8FFI5VACFXUMA1	PG-TQFP-48	as SAF-XC886CM-8FFA, industry quality level, tape & reel
SAF-XC886CM-8RFA AA-Step	SP000235443	XC886CM8RFAAAFZZA1	PG-TQFP-48	as SAF-XC886CM-6RFA, 32-Kbyte ROM, tape & reel
SAK-XC886CM-8RFA 5V AA-Step	SP000245801	XC886CM8RFA5VAAKZZA1	PG-TQFP-48	as SAF-XC886CM-8RFA, 5-V power supply, -40°C to 125°C, tape & reel

**XC886LM Series**

SAF-XC886LM-6FFA 5V AC-Step	SP000657428	XC886LM6FFA5VACFXUMA1	PG-TQFP-48	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support and MDU module, 5-V power supply, -40°C to 85°C, tape & reel
SAK-XC886LM-6FFA 5V AC-Step	SP000606754	XC886LM6FFA5VACKXUMA1	PG-TQFP-48	as SAF-XC886LM-6FFA, -40°C to 125°C, tape & reel
SAF-XC886LM-6FFI 5V AC-Step	SP000607050	XC886LM6FFI5VACFXUMA1	PG-TQFP-48	as SAK-XC886LM-6FFA, industry quality level, -40°C to 85°C, tape & reel
SAA-XC886LM-8FFA AC-Step	SP000368485	XC886LM8FFA5VACAXUMA1	PG-TQFP-48	as SAK-XC886LM-6FFA, 32-Kbyte flash memory, -40°C to 140°C, tape & reel
SAK-XC886LM-8FFA 5V AC-Step	SP000606752	XC886LM8FFA5VACKXUMA1	PG-TQFP-48	as SAA-XC886LM-8FFA, 5-V power supply, -40°C to 125°C, tape & reel
SAL-XC886LM-8FFA 5V AC-Step	SP000844272	XC886LM8FFA5VACLXUMA1	PG-TQFP-48	as SAK-XC886LM-8FFA, -40°C to 150°C, tape & reel
SAF-XC886LM-8FFI 5V AC-Step	SP000607052	XC886LM8FFI5VACFXUMA1	PG-TQFP-48	as SAF-XC886LM-8FFI, industry quality level, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 16-bit</b>				
<b>XE166 Family</b>				
<b>XE162 Series</b>				
(cont'd)				
■ SAF-XE162HN-24F80L AA-Step	SP000518068	XE162HN24F80LAAFXUMA1	PG-LQFP-64-13	as SAF-XE162HN-16F80L, 192-Kbyte on-chip program memory (flash memory), tape & reel
SAK-XE162HN-24F80L AA-Step	SP000692014	XE162HN24F80LAAKXUMA1	PG-LQFP-64-13	as SAF-XE162HN-24F80L, -40°C to 125°C, tape & reel
■ SAK-XE162HN-40F80L AA-Step	SP000692016	XE162HN40F80LAAKXUMA1	PG-LQFP-64-13	as SAF-XE162FN-24F80L, 320-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 16-bit</b>				
<b>XE166 Family</b>				
<b>XE164G Series</b>				
■ SAF-XE164G-24F66L AC-Step	SP000363797	XE164G24F66LACFXQMA1	PG-LQFP-100-3	Real time signal controller High performance CPU with five-stage pipeline, 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare unit (CAPCOM2), two capture/compare units (CCU6), 6+ 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XE164G-24F66L AC-Step	SP000363795	XE164G24F66LACFXUMA1	PG-LQFP-100-3	as SAF-XE164G-24F66L, tape & reel
■ SAF-XE164G-48F66L AC-Step	SP000363787	XE164G48F66LACFXQMA1	PG-LQFP-100-3	as SAF-XE164G-24F66L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tray
■ SAF-XE164G-96F66L AC-Step	SP000363764	XE164G96F66LACFXQMA1	PG-LQFP-100-3	as SAF-XE164G-24F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
■ SAF-XE164GM-24F80L AA-Step	SP000397568	XE164GM24F80LAAFUMA1	PG-LQFP-100-8	as SAF-XE164G-24F66, Base Line memory protection unit (MPU), 80-MHz clock frequency, tape & reel
■ SAF-XE164GM-72F80L AA-Step	SP000397564	XE164GM72F80LAAFUMA1	PG-LQFP-100-8	as SAF-XE164GM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
■ SAK-XE164GM-72F80L AA-Step	SP000628618	XE164GM72F80LAAKXUMA1	PG-LQFP-100-8	as SAF-XE164GM-72F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 16-bit</b>				
<b>XE166 Family</b>				
<b>XE167F Series</b>				
(cont'd)				
■ SAF-XE167FM-72F80L AA-Step	SP000397582	XE167FM72F80LAAFQUMA1	PG-LQFP-144-13	as SAF-XE167FH-200F100L, Base Line 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), memory protection unit (MPU), five Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
■ SAK-XE167FM-72F80L AA-Step	SP000966480	XE167FM72F80LAAKXQMA1	PG-LQFP-144-13	as SAF-XE167FM-72F80L, -40°C to 125°C, tray
■ SAK-XE167FM-72F80L AA-Step	SP000628636	XE167FM72F80LAAKXUMA1	PG-LQFP-144-13	as SAK-XE167FM-72F80L, tape & reel
<b>XE167G Series</b>				
■ SAF-XE167G-72F66L AC-Step	SP000363815	XE167G72F66LACFXQMA1	PG-LQFP-144-4	Real time signal controller 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare unit (CAPCOM2), two capture/compare units (CCU6), 8 + 8-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XE167G-96F66L AC-Step	SP000363805	XE167G96F66LACFXQMA1	PG-LQFP-144-4	as SAF-XE167G-72F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 16-bit</b>				
<b>XC2000 Family</b>				
<b>XC23xx Series (Safety)</b>				
(cont'd)				
SAF-XC2336A-56F80L AA-Step	SP000722428	XC2336A56F80LAAFUMA1	PG-LQFP-64-6	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM (PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 7 + 2-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XC2336B-40F20L AA-Step	SP000559070	XC2336B40F20LAAKUMA1	PG-LQFP-64-6	as SAF-XC2336A-56F80L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM (PSRAM), 20-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2336B-40F66L AA-Step	SP000541986	XC2336B40F66LAAKUMA1	PG-LQFP-64-6	as SAK-XC2336B-40F20L, 66-MHz clock frequency, tape & reel
SAK-XC2336B-40F80L AA-Step	SP000541980	XC2336B40F80LAAKUMA1	PG-LQFP-64-6	as SAK-XC2336B-40F20L, 80-MHz clock frequency, tape & reel
SAH-XC2336B-40F80L AA-Step	SP000847032	XC2336B40F80LAAHXUMA1	PG-LQFP-64-6	as SAK-XC2336B-40F80L, -40°C to 110°C, tape & reel

SMD = Surface Mounted Device



# Microcontrollers

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Microcontrollers, 16-bit</b>				
<b>XC2000 Family</b>				
<b>XC23xx Series (Safety)</b>				
(cont'd)				
SAH-XC2361B-40F66L AA-Step	SP000365913	XC2361B40F66LAAHXUMA1	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM (PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 110°C, tape & reel
SAH-XC2361B-40F80L AA-Step	SP000524448	XC2361B40F80LAAHXUMA1	PG-LQFP-100-8	as SAH-XC2361B40F66L, 80-MHz clock frequency, tape & reel
SAK-XC2361E-136F128L AA-Step	SP000886966	XC2361E136F128LAAKXUMA1	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 1,088-Kbyte on-chip program memory, 90-Kbyte on-chip program/data SRAM (PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, three Full-CAN nodes, six serial interface channels, 128-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Data			
				$V_{DS}$ V	$R_{DS(on) max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## N-Channel MOSFETs

500V  
CE Series

◆	IPA50R190CE	SP000848220	IPA50R190CEXKSA1	TO-220 FullPAK	500	190	2.5 ... 3.5	18.5
◆	IPA50R280CE	SP000848218	IPA50R280CEXKSA1	TO-220 FullPAK	500	280	2.5 ... 3.5	13.0
◆	IPA50R380CE	SP000848216	IPA50R380CEXKSA1	TO-220 FullPAK	500	380	2.5 ... 3.5	9.9
◆	IPA50R500CE	SP000939320	IPA50R500CEXKSA1	TO-220 FullPAK	500	500	2.5 ... 3.5	7.6
◆	IPA50R650CE	SP000992086	IPA50R650CEXKSA1	TO-220 FullPAK	500	650	2.5 ... 3.5	6.1
◆	IPA50R800CE	SP000992084	IPA50R800CEXKSA1	TO-220 FullPAK	500	800	2.5 ... 3.5	5.0
◆	IPA50R950CE	SP000939328	IPA50R950CEXKSA1	TO-220 FullPAK	500	950	2.5 ... 3.5	4.3
◆	IPD50R280CE	SP000992082	IPD50R280CEBTMA1	DPAK	500	280	2.5 ... 3.5	13.0
◆▼	IPD50R380CE	SP001117698	IPD50R380CEATMA1	DPAK	500	380	2.5 ... 3.5	9.9
◆	IPD50R380CE	SP000992080	IPD50R380CEBTMA1	DPAK	500	380	2.5 ... 3.5	9.9
◆▼	IPD50R500CE	SP001117704	IPD50R500CEATMA1	DPAK	500	500	2.5 ... 3.5	7.6
◆	IPD50R500CE	SP000988424	IPD50R500CEBTMA1	DPAK	500	500	2.5 ... 3.5	7.6
◆▼	IPD50R650CE	SP001117708	IPD50R650CEATMA1	DPAK	500	650	2.5 ... 3.5	6.1
◆	IPD50R650CE	SP000992078	IPD50R650CEBTMA1	DPAK	500	650	2.5 ... 3.5	6.1
◆▼	IPD50R800CE	SP001117710	IPD50R800CEATMA1	DPAK	500	800	2.5 ... 3.5	5.0
◆	IPD50R800CE	SP000992076	IPD50R800CEBTMA1	DPAK	500	800	2.5 ... 3.5	5.0
◆	IPD50R950CE	SP000992070	IPD50R950CEBTMA1	DPAK	500	950	2.5 ... 3.5	4.3
◆	IPD50R1K4CE	SP000992072	IPD50R1K4CEBTMA1	DPAK	500	1400	2.5 ... 3.5	3.1
◆▼	IPD50R2K0CE	SP001023988	IPD50R2K0CEBTMA1	DPAK	500	2000	2.5 ... 3.5	2.2
◆	IPD50R3K0CE	SP000992074	IPD50R3K0CEBTMA1	DPAK	500	3000	2.5 ... 3.5	1.5
◆	IPP50R190CE	SP000850802	IPP50R190CEXKSA1	TO-220	500	190	2.5 ... 3.5	18.5
◆	IPP50R280CE	SP000850810	IPP50R280CEXKSA1	TO-220	500	280	2.5 ... 3.5	13.0
◆	IPP50R380CE	SP000850818	IPP50R380CEXKSA1	TO-220	500	380	2.5 ... 3.5	9.9
◆	IPP50R500CE	SP000939326	IPP50R500CEXKSA1	TO-220	500	500	2.5 ... 3.5	7.6
◆	IPU50R950CE	SP001022956	IPU50R950CEBKMA1	IPAK	500	950	2.5 ... 3.5	4.3
◆	IPU50R1K4CE	SP001022958	IPU50R1K4CEBKMA1	IPAK	500	1400	2.5 ... 3.5	3.1
◆	IPU50R2K0CE	SP001053984	IPU50R2K0CEBKMA1	IPAK	500	2000	2.5 ... 3.5	2.2
◆	IPU50R3K0CE	SP001022960	IPU50R3K0CEBKMA1	IPAK	500	3000	2.5 ... 3.5	1.5
◆	IPW50R190CE	SP000850798	IPW50R190CEFKSA1	TO-247	500	190	2.5 ... 3.5	18.5
◆	IPW50R280CE	SP000850804	IPW50R280CEFKSA1	TO-247	500	280	2.5 ... 3.5	13.0

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Orderable Part Number	Package	Data			
				$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
				$V$	$m\Omega$	$V$	$A$

## N-Channel MOSFETs

### 650V E6 Series

◆ IPA65R190E6	SP000863904	IPA65R190E6XKSA1	TO-220 FullPAK	650	190	2.5 ... 3.5	20.2
◆ IPA65R280E6	SP000795276	IPA65R280E6XKSA1	TO-220 FullPAK	650	280	2.5 ... 3.5	13.8
◆ IPA65R380E6	SP000795282	IPA65R380E6XKSA1	TO-220 FullPAK	650	380	2.5 ... 3.5	10.6
◆ IPA65R600E6	SP000799140	IPA65R600E6XKSA1	TO-220 FullPAK	650	600	2.5 ... 3.5	7.3
◆▼ IPB65R280E6	SP000795274	IPB65R280E6ATMA1	D <sup>2</sup> PAK	650	280	2.5 ... 3.5	13.8
◆ IPD65R250E6	SP000898656	IPD65R250E6XTMA1	DPAK	650	250	2.5 ... 3.5	16.1
◆▼ IPD65R380E6	SP001117736	IPD65R380E6ATMA1	DPAK	650	380	2.5 ... 3.5	10.6
◆ IPD65R380E6	SP000795278	IPD65R380E6BTMA1	DPAK	650	380	2.5 ... 3.5	10.6
◆▼ IPD65R600E6	SP001117096	IPD65R600E6ATMA1	DPAK	650	600	2.5 ... 3.5	7.3
◆ IPD65R600E6	SP000800216	IPD65R600E6BTMA1	DPAK	650	600	2.5 ... 3.5	7.3
◆▼ IPI65R280E6	SP000795270	IPI65R280E6XKSA1	I <sup>2</sup> PAK	650	280	2.5 ... 3.5	13.8
◆ IPP65R190E6	SP000849876	IPP65R190E6XKSA1	TO-220	650	190	2.5 ... 3.5	20.2
◆ IPP65R280E6	SP000795268	IPP65R280E6XKSA1	TO-220	650	280	2.5 ... 3.5	13.8
◆▼ IPP65R380E6	SP000795280	IPP65R380E6XKSA1	TO-220	650	380	2.5 ... 3.5	10.6
◆ IPP65R600E6	SP000850500	IPP65R600E6XKSA1	TO-220	650	600	2.5 ... 3.5	7.3
◆ IPW65R190E6	SP000863906	IPW65R190E6FKSA1	TO-247	650	190	2.5 ... 3.5	20.2
◆ IPW65R280E6	SP000795272	IPW65R280E6FKSA1	TO-247	650	280	2.5 ... 3.5	13.8

### 800V

BSP300	SP001058720	BSP300H6327XUSA1	SOT223	800	20000	2.1 ... 4.0	0.19
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### 800V C3 Series

◆ SPA17N80C3	SP000216353	SPA17N80C3XKSA1	TO-220 FullPAK	800	290	2.1 ... 3.9	17
◆ SPA11N80C3	SP000216320	SPA11N80C3XKSA1	TO-220 FullPAK	800	450	2.1 ... 3.9	11
◆ SPA08N80C3	SP000216310	SPA08N80C3XKSA1	TO-220 FullPAK	800	650	2.1 ... 3.9	8.0
◆ SPA06N80C3	SP000216302	SPA06N80C3XKSA1	TO-220 FullPAK	800	900	2.1 ... 3.9	6.0
◆ SPA04N80C3	SP000216300	SPA04N80C3XKSA1	TO-220 FullPAK	800	1300	2.1 ... 3.9	4.0
◆ SPA02N80C3	SP000216295	SPA02N80C3XKSA1	TO-220 FullPAK	800	2700	2.1 ... 3.9	2.0
◆ SPB17N80C3	SP000013370	SPB17N80C3ATMA1	D <sup>2</sup> PAK	800	290	2.1 ... 3.9	17.0
◆▼ SPD06N80C3	SP001117772	SPD06N80C3ATMA1	DPAK	800	900	2.1 ... 3.9	6.0
◆ SPD06N80C3	SP000318350	SPD06N80C3BTMA1	DPAK	800	900	2.1 ... 3.9	6.0
◆▼ SPD04N80C3	SP001117768	SPD04N80C3ATMA1	DPAK	800	1300	2.1 ... 3.9	4.0
◆ SPD04N80C3	SP000315410	SPD04N80C3BTMA1	DPAK	800	1300	2.1 ... 3.9	4.0
◆▼ SPD02N80C3	SP001117754	SPD02N80C3ATMA1	DPAK	800	2700	2.1 ... 3.9	2.0
◆ SPD02N80C3	SP000315409	SPD02N80C3BTMA1	DPAK	800	2700	2.1 ... 3.9	2.0
◆ SPI08N80C3	SP000683148	SPI08N80C3XKSA1	I <sup>2</sup> PAK	800	650	2.1 ... 3.9	8.0
◆ SPP17N80C3	SP000683164	SPP17N80C3XKSA1	TO-220	800	290	2.1 ... 3.9	17.0
◆ SPP11N80C3	SP000683158	SPP11N80C3XKSA1	TO-220	800	450	2.1 ... 3.9	11.0
◆ SPP08N80C3	SP000683156	SPP08N80C3XKSA1	TO-220	800	650	2.1 ... 3.9	8.0
◆ SPP06N80C3	SP000683154	SPP06N80C3XKSA1	TO-220	800	900	2.1 ... 3.9	6.0
◆ SPP04N80C3	SP000683152	SPP04N80C3XKSA1	TO-220	800	1300	2.1 ... 3.9	4.0
◆ SPP02N80C3	SP000683150	SPP02N80C3XKSA1	TO-220	800	2700	2.1 ... 3.9	2.0
◆ SPW55N80C3	SP000849356	SPW55N80C3FKSA1	TO-247	800	85	2.1 ... 3.9	54.9
◆ SPW17N80C3	SP000013369	SPW17N80C3FKSA1	TO-247	800	290	2.1 ... 3.9	17.0
◆ SPW11N80C3	SP000013703	SPW11N80C3FKSA1	TO-247	800	450	2.1 ... 3.9	11.0

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Data			
				$V_{RRM}$ V	$I_F$ A	$Q_{rryp}$ nC	$I_{F,SM}$ at $T_j = 25^\circ\text{C}$ A

**Power Diodes****Rapid 1 Diodes  
650V**

IDP08E65D1	SP001015376	IDP08E65D1XKSA1	TO-220 R2L	650	8	0.16	64
IDP15E65D1	SP001015380	IDP15E65D1XKSA1	TO-220 R2L	650	15	0.28	120
IDW30E65D1	SP001015412	IDW30E65D1FKSA1	TO-247	650	30	0.43	240
IDW40E65D1	SP001015382	IDW40E65D1FKSA1	TO-247	650	40	0.47	320

**Rapid 2 Diodes  
650V**

IDP08E65D2	SP000994154	IDP08E65D2XKSA1	TO-220 R2L	650	8	73	60
IDP15E65D2	SP001005456	IDP15E65D2XKSA1	TO-220 R2L	650	15	106	100
IDP40E65D2	SP001008324	IDP40E65D2XKSA1	TO-220 R2L	650	40	130	250
IDV08E65D2	SP000994148	IDV08E65D2XKSA1	TO-220 FP R2L	650	8	73	60
IDV15E65D2	SP001005460	IDV15E65D2XKSA1	TO-220 FP R2L	650	15	106	100
IDW15E65D2	SP001005464	IDW15E65D2FKSA1	TO-247	650	15	106	100
IDW40E65D2	SP001005474	IDW40E65D2FKSA1	TO-247	650	40	130	320

**Emitter Controlled Diodes  
600V**

IDB09E60	SP000013914	IDB09E60ATMA1	D <sup>2</sup> PAK	600	9	343	40
IDB15E60	SP000014044	IDB15E60ATMA1	D <sup>2</sup> PAK	600	15	595	60
IDB23E60	SP000278566	IDB23E60ATMA1	D <sup>2</sup> PAK	600	23	970	89
IDB30E60	SP000013917	IDB30E60ATMA1	D <sup>2</sup> PAK	600	30	1100	117
IDB45E60	SP000013635	IDB45E60ATMA1	D <sup>2</sup> PAK	600	45	1400	162
IDD03E60	SP000013632	IDD03E60BUMA1	DPAK	600	3	118	16
IDD06E60	SP000077586	IDD06E60BUMA1	DPAK	600	6	240	29
IDD09E60	SP000013634	IDD09E60BUMA1	DPAK	600	9	343	40
IDD15E60	SP000077587	IDD15E60BUMA2	DPAK	600	15	595	60
IDP06E60	SP000683020	IDP06E60XKSA1	TO-220	600	6	240	29
IDP15E60	SP000683024	IDP15E60XKSA1	TO-220	600	15	595	60
IDP23E60	SP000683028	IDP23E60XKSA1	TO-220	600	23	970	89
IDP30E60	SP000683032	IDP30E60XKSA1	TO-220	600	30	1100	117
IDP45E60	SP000683034	IDP45E60XKSA1	TO-220	600	45	1400	162
IDW30E60	SP000916104	IDW30E60FKSA1	TO-247	600	30	1100	117
▼ IDW50E60	SP000919402	IDW50E60FKSA1	TO-247	600	50	1500	240
IDW75E60	SP000227824	IDW75E60FKSA1	TO-247	600	75	2400	220
IDW100E60	SP000227825	IDW100E60FKSA1	TO-247	600	100	3600	400
IDV30E60C	SP000844186	IDV30E60CXKSA1	TO-220 FullPAK	600	30	880	21

**1200V**

IDB12E120	SP000013640	IDB12E120ATMA1	D <sup>2</sup> PAK	1200	12	1200	63
IDB18E120	SP000013919	IDB18E120ATMA1	D <sup>2</sup> PAK	1200	18	1880	78
IDB30E120	SP000013641	IDB30E120ATMA1	D <sup>2</sup> PAK	1200	30	2630	102
IDP04E120	SP000683018	IDP04E120XKSA1	TO-220	1200	4	330	28
IDP09E120	SP000683022	IDP09E120XKSA1	TO-220	1200	9	950	50
IDP12E120	SP000712390	IDP12E120XKSA1	TO-220	1200	12	1200	63
IDP18E120	SP000683026	IDP18E120XKSA1	TO-220	1200	18	1880	78
IDP30E120	SP000683030	IDP30E120XKSA1	TO-220	1200	30	2630	102

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Data			
				$V_{DS}$ V	$I_F$ A	$Q_{typ}$ nC	$I_{F,SM}$ at $T_j = 25^\circ\text{C}$ A

**Power Diodes****Silicon Carbide Schottky Diodes  
Fifth Generation  
650V**

IDH02G65C5	SP000854596	IDH02G65C5XKSA1	TO-220 real 2pin	650	2	4	23
IDH03G65C5	SP000925196	IDH03G65C5XKSA1	TO-220 real 2pin	650	3	5	31
IDH04G65C5	SP000925198	IDH04G65C5XKSA1	TO-220 real 2pin	650	4	7	38
IDH05G65C5	SP000925200	IDH05G65C5XKSA1	TO-220 real 2pin	650	5	8	46
IDH06G65C5	SP000925202	IDH06G65C5XKSA1	TO-220 real 2pin	650	6	10	54
IDH08G65C5	SP000925204	IDH08G65C5XKSA1	TO-220 real 2pin	650	8	13	68
IDH09G65C5	SP000925206	IDH09G65C5XKSA1	TO-220 real 2pin	650	9	14	75
IDH10G65C5	SP000925208	IDH10G65C5XKSA1	TO-220 real 2pin	650	10	15	82
IDH12G65C5	SP000821244	IDH12G65C5XKSA1	TO-220 real 2pin	650	12	18	97
IDH16G65C5	SP000925210	IDH16G65C5XKSA1	TO-220 real 2pin	650	16	23	124
IDH20G65C5	SP000925212	IDH20G65C5XKSA1	TO-220 real 2pin	650	20	29	142
▼ IDK02G65C5	SP000930840	IDK02G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	2	4	23
▼ IDK03G65C5	SP000930842	IDK03G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	3	5	31
▼ IDK04G65C5	SP000930844	IDK04G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	4	7	38
▼ IDK05G65C5	SP000930846	IDK05G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	5	8	46
▼ IDK06G65C5	SP000930848	IDK06G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	6	10	54
▼ IDK08G65C5	SP000930850	IDK08G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	8	13	68
▼ IDK09G65C5	SP000930852	IDK09G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	9	14	75
▼ IDK10G65C5	SP000930854	IDK10G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	10	15	82
▼ IDK12G65C5	SP000930856	IDK12G65C5XTMA1	D <sup>2</sup> PAK real 2pin	650	12	18	97
▼ IDL02G65C5	SP000941306	IDL02G65C5XUMA1	ThinPAK 8x8	650	2	4	21
▼ IDL04G65C5	SP000941308	IDL04G65C5XUMA1	ThinPAK 8x8	650	4	7	29
▼ IDL06G65C5	SP000941310	IDL06G65C5XUMA1	ThinPAK 8x8	650	6	10	36
▼ IDL08G65C5	SP000941312	IDL08G65C5XUMA1	ThinPAK 8x8	650	8	13	43
▼ IDL10G65C5	SP000941314	IDL10G65C5XUMA1	ThinPAK 8x8	650	10	15	50
▼ IDL12G65C5	SP000941316	IDL12G65C5XUMA1	ThinPAK 8x8	650	12	18	57
IDW10G65C5	SP000937038	IDW10G65C5FKSA1	TO-247	650	10	15	58
IDW12G65C5	SP000937044	IDW12G65C5FKSA1	TO-247	650	12	18	71
IDW16G65C5	SP000937048	IDW16G65C5FKSA1	TO-247	650	16	23	95
IDW20G65C5	SP000937050	IDW20G65C5FKSA1	TO-247	650	20	29	103
IDW30G65C5	SP000937052	IDW30G65C5FKSA1	TO-247	650	30	42	165
IDW40G65C5	SP000969582	IDW40G65C5FKSA1	TO-247	650	40	55	182

**SiC JFET & Direct Drive Technology  
1200V**

▼ IJW120R100T1	SP000871656	IJW120R100T1FKSA1	TO-247	1200	26	190	78
▼ IJW120R070T1	SP000871652	IJW120R070T1FKSA1	TO-247	1200	35	238	114

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
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**Power Management ICs**  
**Automotive ICs**

**Servo Driver ICs**

TLE4205G	SP000011747	TLE4205GNTMA1	P-DSO-20-6	Power bridges for DC-motor control, 2 x 1A/32V, tape & reel
TLE4206G	SP000298150	TLE4206GXUMA1	PG-DSO-14-22	DC-motor driver for servo driver 2 x 1A/18V, tape & reel
TLE4206-2G	SP000303750	TLE42062GXUMA1	PG-DSO-14-22	
TLE4206-4G	SP000840122	TLE42064GXUMA1	PG-DSO-14-22	Headlight beam controller, H-bridge driver, 2 x 1A/19V, tape & reel
TLE4209A	SP000305193	TLE4209AHKLA1	P-DIP-8-4	DC-motor driver for servo driver 2 x 1A/18V, tube
TLE4209G	SP000270563	TLE4209GXUMA1	PG-DSO-14-22	

**Stepper Motor Drivers**

TCA3727G	SP000306731	TCA3727GXUMA1	PG-DSO-24-3	Stepper motor driver, 2-phase motor, 2 x 1A / 50V, Inhibit, tape & reel
TLE4726G	SP000306733	TLE4726GXUMA1	PG-DSO-24-3	
TLE4729G	SP000398988	TLE4729GXUMA1	PG-DSO-24-16	Stepper motor driver, 2-phase with low quiescent current, Inhibit, 2 x 0.7A/45V, tape & reel
TLE8444SL	SP000394373	TLE8444SLXUMA1	PG-SSOP-24-7	Stepper motor driver, 2-phase with low quiescent current, Inhibit, 4 x 0.8A/40V, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Automotive Transceivers and SBCs</b>				
<b>Body System Basis Chips</b> (cont'd)				
TLE8263-2E	SP000379937	TLE82632EXUMA1	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 2LIN, LDO and SPI, 3 limp home output, tape & reel
▼ TLE8263-2E	SP001056126	TLE82632EXUMA2	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 2LIN, LDO and SPI, 3 limp home output, tape & reel
TLE8264E	SP000317796	TLE8264EXUMA1	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 1 limp home output, tape & reel
▼ TLE8264E	SP001056120	TLE8264EXUMA2	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 1 limp home output, tape & reel
TLE8264-2E	SP000379938	TLE82642EXUMA1	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 3 limp home output, tape & reel
▼ TLE8264-2E	SP001056122	TLE82642EXUMA2	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 3 limp home output, tape & reel
▼ TLE9266QX	SP000850940	TLE9266QXXUMA1	PG-VQFN-48-31	Body system IC with integrated voltage regulator, power managment functions, HS-CAN and LIN transceiver, featuring multiple high-side and low-side switches including wake inputs, tape & reel
▼ TLE9266-2QX	SP000926208	TLE92662QXXUMA1	PG-VQFN-48-31	Body system IC with integrated voltage regulator, power managment functions, HS-CAN and LIN transceiver, featuring multiple high-side and low-side switches including wake inputs, tape & reel

## Stand-alone Transceivers

TLE6250G	SP000316311	TLE6250GXUMA1	PG-DSO-8-16	High speed CAN-transceiver according to ISO 11898, tape & reel
TLE6250G V33	SP000382100	TLE6250GV33XUMA1	PG-DSO-8-16	High speed CAN-transceiver according to ISO 11898, for 3.3V microcontroller
TLE6251D	SP000836844	TLE6251DXUMA1	PG-DSO-8-16	High speed CAN-transceiver according to ISO 11898, with bus wake-up and bus failure detection, tape & reel
TLE6251DS	SP000294173	TLE6251DSXUMA1	PG-DSO-8-3	High speed CAN-transceiver with bus wake-up, compatible to 3.3V and 5V logic input levels, tape & reel
■ TLE6251G	SP000082094	TLE6251GNTMA1	P-DSO-14-13	High speed CAN-transceiver with bus wake-up and bus failure detection, tape & reel
TLE6251-2G	SP000407102	TLE62512GXUMA1	PG-DSO-14-24	High speed CAN-transceiver 1-Mbit/s transmission rate, with bus wake-up and bus failure detection, for mixed supply CAN networks, tape & reel
TLE6251-3G	SP000823130	TLE62513GXUMA1	PG-DSO-14	High speed CAN-transceiver, 1-Mbit/s transmission rate, with bus wake-up and bus failure detection, for mixed supply CAN networks, no split pin, tape & reel
TLE8250G	SP000551642	TLE8250GXUMA1	PG-DSO-8-16	High speed CAN-transceiver according ISO 11898-3, fully compatible to TLE6250G, receive-only mode input, not Enable input, for large CAN networks with high data rates, tape & reel
TLE8250GVIO	SP000691818	TLE8250GVIOXUMA1	PG-DSO-8-16	High speed CAN-transceiver according ISO 11898-3, fully compatible to TLE6250G, not Enable input, for large CAN networks with high data rates, $V_{IO}$ input for voltage adaptation, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
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**Specific Automotive ICs****Application Specific Standard Products for Restraint Systems**

TLE6710Q	SP000013708	TLE6710QNUMA1	P-MQFP-64-1	Power supply communication four squib driver airbag system ICs, tape & reel
TLE6712G	SP000013710	TLE6712GNTMA1	P-DSO-24-10	Two squib airbag firing ICs, tape & reel
TLE6714G	SP000013709	TLE6714GNTMA1	P-DSO-28-1	Quad squib airbag firing ICs, tape & reel
TLE7729T	SP000312977	TLE7729TXUMA1	PG-TSSOP-28	Quad channel airbag satellite receiver ICs (SatRIC™), tape & reel

**Application Specific Standard Products for Vehicle Stability - Braking (ABS/ESP)**

■ TLE6212	SP000451438	TLE6212XUMA1	PG-LQFP-64-1	System-IC for ABS/Traction Control/Electronic Stability Control, tape & reel
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**Power Interface Products for Motorcycle and Small Engines**

TLE8080EM	SP000823824	TLE8080EMXUMA1	PG-SSOP-24	Engine management IC for small engines, 5V/250mA, K-line transceiver (ISO 9141), SPI, 4 low side driver with overtemperature and overcurrent protection, tape & reel
TLE8080-2EM	SP001052526	TLE80802EMXUMA1	PG-SSOP-24	Engine management IC for small engines, 5V/250mA, K-line transceiver (ISO 9141), SPI, 4 low side driver with overtemperature and overcurrent protection, tape & reel
TLE8088EM	SP000685716	TLE8088EMXUMA1	PG-SSOP-24	Engine management IC for small engines, 5V/150mA, K-line transceiver (ISO 9141), SPI, 1 low side driver with overtemperature and overcurrent protection, tape & reel

SMD = Surface Mounted Device



## RF & Protection Devices

Type	Ordering Code	Orderable Part Number	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
				$V_{R\text{ max}}$	$I_{F\text{ max}}$	$C_T$	$V_R$	$r_F$
				V	mA	pF	V	$\Omega$

### RF PIN Diodes

#### Band Switching + RF Attenuation

BA592	3k*	SP000010141	BA592E6327HTSA1	SOD323	35	100	0.85	3	0.36
BA592	10k*	SP000010142	BA592E6433HTMA1	SOD323	35	100	0.85	3	0.36
BA595	3k*	SP000010146	BA595E6327HTSA1	SOD323	50	50	0.26	10	5.00
■ BA595	10k*	SP000010148	BA595E6433HTMA1	SOD323	50	50	0.26	10	5.00
BA885	3k*	SP000010151	BA885E6327HTSA1	SOT23	50	100	0.28	10	5.00
■ BA892	3k*	SP000734344	BA892H6327XTSA1	SCD80	35	100	0.85	3	0.36
■ BA892	3k*	SP000745044	BA892H6770XTSA1	SCD80	35	100	0.85	3	0.36
■ BA892	8k*	SP000745042	BA892H6127XTSA1	SCD80	35	100	0.85	3	0.36
■ BA892	10k*	SP000734328	BA892H6433XTMA1	SCD80	35	100	0.85	3	0.36
BA892-02V	3k*	SP000745054	BA89202VH6327XTSA1	SC79	35	100	0.85	3	0.36
BA892-02V	8k*	SP000745052	BA89202VH6127XTSA1	SC79	35	100	0.85	3	0.36
■ BA895	3k*	SP000745062	BA895H6327XTSA1	SCD80	50	50	0.23	10	4.50
BAR14-1 (Dual)	3k*	SP000010164	BAR141E6327HTSA1	SOT23	100	140	0.25	50	7.00
BAR15-1 (Dual)	3k*	SP000010163	BAR151E6327HTSA1	SOT23	100	140	0.25	50	7.00
BAR16-1 (Dual)	3k*	SP000010165	BAR161E6327HTSA1	SOT23	100	140	0.25	50	7.00
BAR61 (Triple)	3k*	SP000010169	BAR61E6327HTSA1	SOT143	100	140	0.25	50	7.00
BAT18-04 (Dual)	3k*	SP000010290	BAT1804E6327HTSA1	SOT23	35	100	0.92	1	0.36
BAT18-05 (Dual)	3k*	SP000010291	BAT1805E6327HTSA1	SOT23	35	100	0.92	1	0.36

\* order unit

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
				$V_R$	$I_F$	$C_T$	$V_R$	$C_{T1}/C_{T2}$	
				V	mA	pF	V		

**RF Varactor Diodes****FM Tuner**

BB804SF1 (Dual)	3k*	SP000010425	BB804SF1E6327HTSA1	SOT23	20	50	43.0... 44.5	2	1.70
BB804SF2 (Dual)	3k*	SP000010426	BB804SF2E6327HTSA1	SOT23	20	50	44.0 ... 45.5	2	1.70
BB814GR1 (Dual)	3k*	SP000010433	BB814E6327GR1HTSA1	SOT23	20	50	43.0 ... 44.5	2	2.05 ... 2.25
■ BB814GR2 (Dual)	3k*	SP000010435	BB814E6327GR2HTSA1	SOT23	20	50	45.0 ... 46.5	2	2.05 ... 2.25
BB844 (Dual)	3k*	SP000013388	BB844E6327HTSA1	SOT23	18	50	42.5 ... 45	2	3.20 ... 3.80
BB914 (Dual)	3k*	SP000010445	BB914E6327HTSA1	SOT23	20	50	42.5 ... 45	2	2.28 ... 2.42

**SAT Tuner**

BB831	3k*	SP000012250	BB831E7904HTSA1	SOD323	30	20	7.8... 9.8	1	8.60
BB833	3k*	SP000010437	BB833E6327HTSA1	SOD323	30	20	8.5...10	1	12.40
BB837	3k*	SP000010441	BB837E6327HTSA1	SOD323	30	20	6.0... 7.2	1	12.20
BB857 matched	3k*	SP000745128	BB857H7902XTSA1	SCD80	30	20	6.0... 7.2	1	12.00

**UHF and VHF Tuner**

BB439 matched	3k*	SP000010372	BB439E6327HTSA1	SOD323	30	20	26...32	3	5 ... 6.5
BB535 matched	3k*	SP000010375	BB535E7904HTSA1	SOD323	30	20	17.5... 20	1	8.2 ... 9.8
BB535 unmatched	3k*	SP000010374	BB535E7907HTMA1	SOD323	30	20	17.5 ... 20	1	8.2 ... 9.8
▼ BB535 matched	3k*	SP000010377	BB535E7908HTSA1	SOD323	30	20	17.5 ... 20	1	8.2 ... 9.8
BB545 matched	3k*	SP000010383	BB545E7904HTSA1	SOD323	30	20	18.5 ... 21.5	1	9 ... 11
BB555 matched	3k*	SP000733802	BB555H7902XTSA1	SCD80	30	20	17.5 ... 20	1	6.7
BB555 matched	8k*	SP000745068	BB555H7912XTSA1	SCD80	30	20	17.5 ... 20	1	6.7
BB555-02V matched	3k*	SP000745088	BB55502VH7902XTSA1	SC79	30	20	17.5 ... 20	1	8.2 ... 9.8
BB555-02V matched	8k*	SP000745092	BB55502VH7912XTSA1	SC79	30	20	17.5 ... 20	1	8.2 ... 9.8
BB565 matched	3k*	SP000745094	BB565H7902XTSA1	SCD80	30	20	18.5 ... 21.5	1	7.2
BB565 unmatched	3k*	SP000745096	BB565H7908XTSA1	SCD80	30	20	18.5 ... 21.5	1	7.2
BB565 matched	8k*	SP000842826	BB565H7912XTSA1	SCD80	30	20	18.5 ... 21.5	1	7.2
BB565-02V matched	3k*	SP000745098	BB56502VH7902XTSA1	SC79	30	20	18.5 ... 21.5	1	9 ... 11

\* order unit

SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Orderable Part Number	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
				$V_{\text{CEO}}$	$I_{\text{CM}}$	$h_{\text{FE}}$	at	$I_{\text{C}}$	$V_{\text{CE}}$
				V	mA			mA	V

## General Purpose Transistors

### Single $I_{\text{C}} \geq 500\text{mA}$

BDP947	1k*	SP000010931	BDP947E6327HTSA1	SOT223	45	5000	40 ... 475	500	1
BDP948	1k*	SP000010938	BDP948E6327HTSA1	SOT223	45	5000	40 ... 475	500	1
BDP948	4k*	SP000010943	BDP948E6433HTMA1	SOT223	45	5000	40 ... 475	500	1
BDP949	1k*	SP000010932	BDP949E6327HTSA1	SOT223	60	5000	40 ... 475	500	1
BDP950	1k*	SP000010939	BDP950E6327HTSA1	SOT223	60	5000	40 ... 475	500	1
BDP953	1k*	SP000010934	BDP953E6327HTSA1	SOT223	100	5000	40 ... 475	500	1
BDP954	1k*	SP000010941	BDP954E6327HTSA1	SOT223	100	5000	40 ... 475	500	1
BCP51	1k*	SP000010692	BCP51E6327HTSA1	SOT223	45	1500	40 ... 250	150	2
BCP51-16	1k*	SP000010694	BCP5116E6327HTSA1	SOT223	45	1500	100 ... 250	150	2
BCP51-16	4k*	SP000010703	BCP5116E6433HTMA1	SOT223	45	1500	100 ... 250	150	2
BCP52-16	1k*	SP000010696	BCP5216E6327HTSA1	SOT223	60	1500	100 ... 250	150	2
BCP53-10	1k*	SP000010697	BCP5310E6327HTSA1	SOT223	100	1500	63 ... 160	150	2
BCP53-16	1k*	SP000010698	BCP5316E6327HTSA1	SOT223	100	1500	100 ... 250	150	2
BCP53-16	4k*	SP000010702	BCP5316E6433HTMA1	SOT223	100	1500	100 ... 250	150	2
BCP54	1k*	SP000010707	BCP54E6327HTSA1	SOT223	45	1500	40 ... 250	150	2
BCP54-16	1k*	SP000010709	BCP5416E6327HTSA1	SOT223	45	1500	100 ... 250	150	2
BCP54-16	4k*	SP000010717	BCP5416E6433HTMA1	SOT223	45	1500	100 ... 250	150	2
BCP55	1k*	SP000010713	BCP55E6327HTSA1	SOT223	60	1500	40 ... 250	150	2
BCP55-16	1k*	SP000010711	BCP5516E6327HTSA1	SOT223	60	1500	100 ... 250	150	2
BCP56-10	1k*	SP000010712	BCP5610E6327HTSA1	SOT223	80	1500	63 ... 160	150	2
BCP56-16	1k*	SP000010706	BCP5616E6327HTSA1	SOT223	80	1500	100 ... 250	150	2
BCP69-25	1k*	SP000015154	BCP6925E6327HTSA1	SOT223	20	2000	160 ... 375	150	2
BCX51	1k*	SP000014826	BCX51E6327HTSA1	SOT89	45	1500	40 ... 250	150	2
BCX51-16	1k*	SP000014827	BCX5116E6327HTSA1	SOT89	45	1500	100 ... 250	150	2
▼ BCX51-16	4k*	SP000913728	BCX5116E6433HTMA1	SOT89	45	1500	100 ... 250	150	2
BCX52	1k*	SP000014828	BCX52E6327HTSA1	SOT89	60	1500	40 ... 250	150	2
BCX52-16	1k*	SP000014830	BCX5216E6327HTSA1	SOT89	60	1500	100 ... 250	150	2
BCX52-16	4k*	SP000463248	BCX5216E6433HTMA1	SOT89	60	1500	100 ... 250	150	2
BCX53	1k*	SP000010906	BCX53E6327HTSA1	SOT89	80	1500	40 ... 250	150	2
BCX53-10	1k*	SP000010908	BCX5310E6327HTSA1	SOT89	80	1500	63 ... 160	150	2
BCX53-16	1k*	SP000010907	BCX5316E6327HTSA1	SOT89	80	1500	100 ... 250	150	2
BCX53-16	4k*	SP000010909	BCX5316E6433HTMA1	SOT89	80	1500	100 ... 250	150	2
BCX54-16	1k*	SP000010918	BCX5416E6327HTSA1	SOT89	45	1500	100 ... 250	150	2
BCX55	1k*	SP000010916	BCX55E6327HTSA1	SOT89	60	1500	40 ... 250	150	2
BCX55-16	1k*	SP000010920	BCX5516E6327HTSA1	SOT89	60	1500	100 ... 250	150	2
BCX55-16	4k*	SP000010922	BCX5516E6433HTMA1	SOT89	60	1500	100 ... 250	150	2
BCX56	1k*	SP000010914	BCX56E6327HTSA1	SOT89	80	1500	40 ... 250	150	2
BCX56-10	1k*	SP000010915	BCX5610E6327HTSA1	SOT89	80	1500	63 ... 160	150	2
BCX56-16	1k*	SP000010913	BCX5616E6327HTSA1	SOT89	80	1500	100 ... 250	150	2
BCX56-16	4k*	SP000017942	BCX5616E6433HTMA1	SOT89	80	1500	100 ... 250	150	2
BCX68-10	1k*	SP000010924	BCX6810E6327HTSA1	SOT89	20	2000	85 ... 160	500	1
BCX68-16	1k*	SP000010925	BCX6816E6327HTSA1	SOT89	20	2000	100 ... 250	150	2
BCX68-25	1k*	SP000010926	BCX6825E6327HTSA1	SOT89	20	2000	160 ... 375	500	1
BCX69-10	1k*	SP000010928	BCX6910E6327HTSA1	SOT89	20	2000	85 ... 160	500	1
BCX69-16	1k*	SP000010929	BCX6916E6327HTSA1	SOT89	20	2000	100 ... 250	500	1
BCX69-25	1k*	SP000010930	BCX6925E6327HTSA1	SOT89	20	2000	160 ... 375	500	1

\* order unit

SMD = Surface Mounted Device



# LED Driver & Lighting ICs

Type	Ordering Code	Orderable Part Number	Package	Description
<b>Off-Line LED Driver ICs</b>				
ICL8001G	SP000773086	ICL8001GXUMA1	PG-DSO-8-1	Dimmable off-line LED driver controller, simplifies LED driver implementation, quasi-resonant flyback/buck, tape & reel
ICL8002G	SP000923986	ICL8002GXUMA1	PG-DSO-8-1	Dimmable off-line LED driver controller, optimized for best possible dimming performance, quasi-resonant flyback/buck, tape & reel

## Smart Ballast Control ICs for Fluorescent Lamp Ballasts

■ ICB1FL02G	SP000204703	ICB1FL02GXUMA1	PG-DSO-18-1	PFC, ballast control and half-bridge driver in one IC, tape & reel
■ ICB1FL03G	SP000626792	ICB1FL03GXUMA1	PG-DSO-18-2	PFC, ballast control and half-bridge driver in one IC, tape & reel
ICB2FL01G	SP000363741	ICB2FL01GXUMA1	PG-DSO-19-1	2nd generation FL-controller for fluorescent lamp ballasts, tape & reel
ICB2FL02G	SP000555574	ICB2FL02GXUMA1	PG-DSO-19-1	2nd generation FL-controller for fluorescent lamp ballasts, optimized to operating frequency and detection threshold, tape & reel
ICB2FL03G	SP000776684	ICB2FL03GXUMA1	PG-DSO-16-20	2nd generation FL-controller for fluorescent lamp ballasts, including a discontinuous mode Power Factor Correction (PFC), lamp inverter control and a high-voltage level shift half-bridge driver, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Orderable Part Number	Package	Description
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### Switch Mode and Linear LED Drivers for Automotive Lighting Applications

#### Basic LED Driver ICs

▼ TLD1121EL	SP000809166	TLD1121ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 1 input-, 1 output channel, drive 3 red LEDs with output current up to 180mA, maximum output load current up to 360 mA, OL & SC detection, tape & reel
▼ TLD1124EL	SP001092708	TLD1124ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 1 input-, 1 output channel, drive 3 red LEDs with output current up to 180mA, maximum output load current up to 360 mA, OL & SC detection, DEN, tape & reel
▼ TLD1125EL	SP000809220	TLD1125ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 1 input-, 1 output channel, drive 3 red LEDs with output current up to 180mA, maximum output load current up to 360 mA, OL & SC detection, PWMI, tape & reel
▼ TLD1313EL	SP000809208	TLD1313ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 1 input-, 3 output channel, drive 3 red LEDs with output current up to 60mA, maximum output load current up to 120 mA, OL & SC with double fault detection, tape & reel
▼ TLD1314EL	SP001092706	TLD1314ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 1 input-, 3 output channel, drive 3 red LEDs with output current up to 60mA, maximum output load current up to 120 mA, OL & SC detection, DEN, tape & reel
▼ TLD2311EL	SP000809216	TLD2311ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 3 input-, 3 output channel, drive 3 red LEDs with output current up to 60mA, maximum output load current up to 120 mA, OL & SC detection, tape & reel
▼ TLD2314EL	SP001092710	TLD2314ELXUMA1	PG-SSOP-14	Basic LED driver, high side current source, 3 input-, 3 output channel, drive 3 red LEDs with output current up to 60mA, maximum output load current up to 120 mA, OL & SC detection, DEN, tape & reel

#### Linear LED Driver IC

TLE4241GM	SP000410436	TLE4241GMFUMA1	PG-DSO-8-9	Lowdrop LED driver, with adjustable current output (8/65V), Inhibit, tape & reel
■ TLE4242G	SP000299340	TLE4242GATMA1	PG-TO263-7-1	Lowdrop LED driver, with adjustable current output up to 500mA, Inhibit, tape & reel
▼ TLE4242G	SP000977146	TLE4242GATMA2	PG-TO263-7-1	Lowdrop LED driver, with adjustable current output up to 500mA, Inhibit, tape & reel
TLD1211SJ	SP000735204	TLD1211SJFUMA1	PG-DSO-8-16	Basic LED driver, high side current source, 1 channel, typical 85 mA load current, up to 2.5A load current using external transistors, tape & reel

SMD = Surface Mounted Device