



Sensing and Power Reimagined

Product Selection Guide

Comprehensive reference guide for Allegro current sensors, position sensors, and intelligent motor drivers.

Allegro MicroSystems 2026 Edition



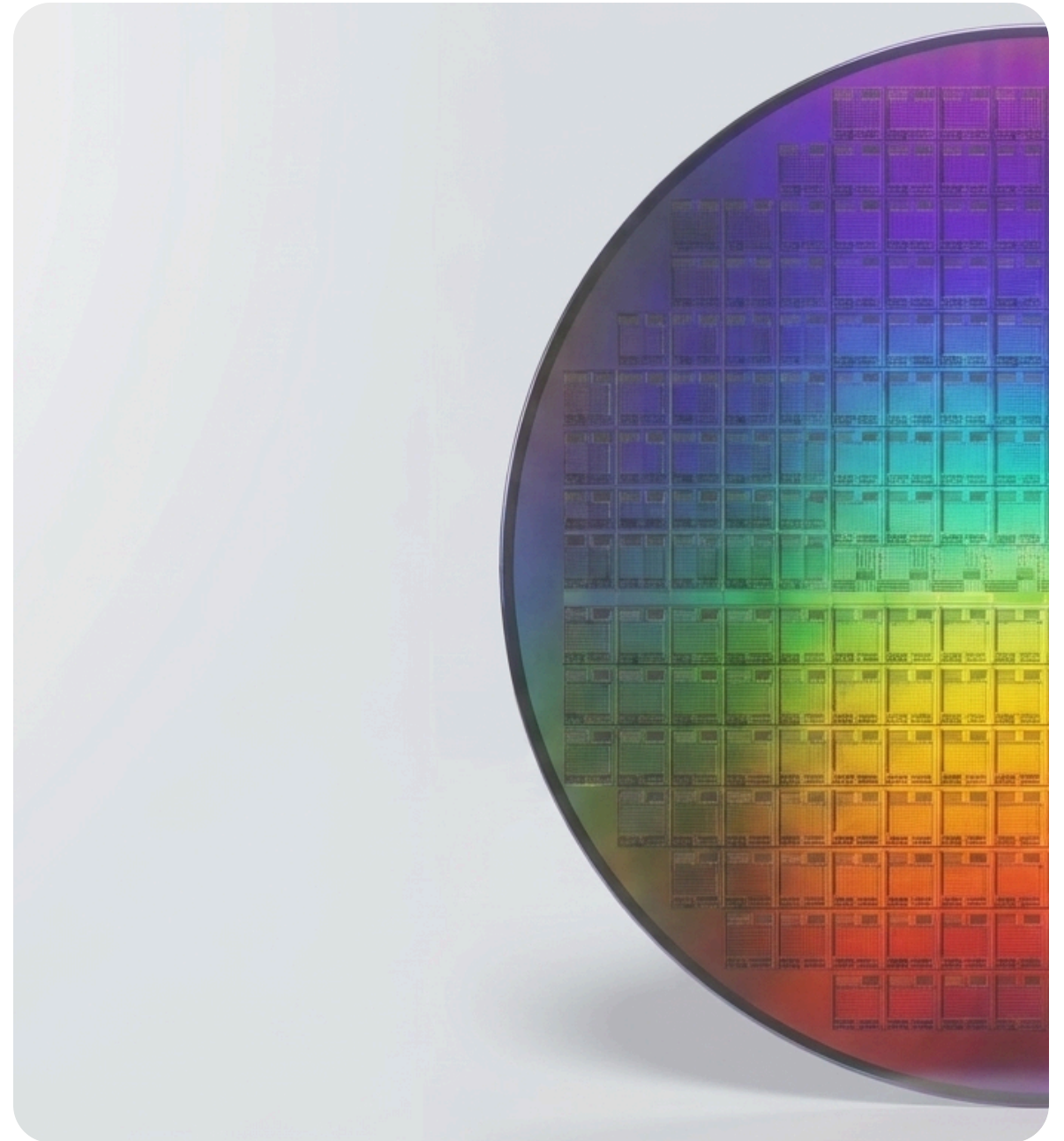
Automotive



Industrial



Data Center



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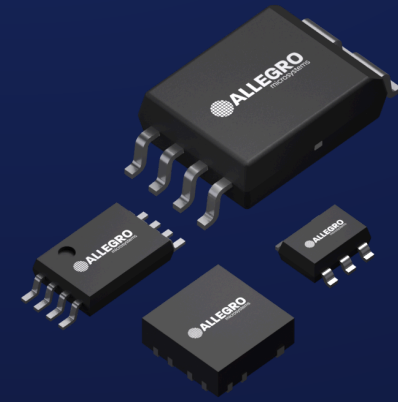
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Current Sensors

High DC Working Voltage in Compact Packages

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Integrated Current Sensors (<200 A)

Part Number	Working voltage for Basic/ Reinforced Isolation V	Measurement Range A	Bandwidth kHz	Supply Voltage V	Temperature Range °C	Primary Conductor Resistance mΩ	Package Type(s)	Features
ACS37002LA	1000 / 500	±10, ±12, ±15, ±20, ±25, ±30, ±37.5, ±50	400	3.3, 5	-40 to 150	1	SOIC-16	Zero current Reference pin, Overcurrent Fault pin
ACS37002MA	1144 / 572	±33, ±40, ±50, ±66, ±80, ±100, ±133	400	3.3, 5	-40°C to 150	0.85	SOIC-16	Zero current Reference pin, Overcurrent Fault pin
ACS37002MC	1144 / 572	±33, ±40, ±50, ±66.7, ±80, ±100, ±133.3, ±135, ±180	400	3.3, 5	-40°C to 150	0.27	SOIC-16	Zero current Reference pin, Overcurrent Fault pin
ACS37800MA	1097 / 565	±15, ±30, >±50	1	3.3, 5	-40°C to 125	0.85	SOIC-16	AC or DC Power Monitoring
ACS37800MC	1160 / 580	±30	1	3.3, 5	-40°C to 125	0.265	SOIC-16	AC or DC Power Monitoring
ACS711	Functional isolation only	<±10, ±20; <±10, ±30	100	3.3	-40°C to 85, -40°C to 125	0.6, 1.2	SOIC-8, QFN-12	Overcurrent fault pin
ACS724/5LMC	1144 / 572	±20, ±30, ±65	120	3.3, 5	-40°C to 150	0.265	SOIC-16	-
ACS724/5LC	297 / -	<±10, ±20, ±30, >±50, 10, 20, 30	120	3.3, 5	-40°C to 150	1.2	SOIC-8	-
ACS724/5MA	1097 / 565	±20, ±30, >±50, 30	120	3.3, 5	-40 to 125, -40 to 150	0.85	SOIC-16	-
ACS720	616 / -	±15, ±35, ±65, ±80	120	5	-40 to 125	1	SOIC-16	Fast & slow overcurrent fault pins
ACS37041	Functional isolation only	±10, ±30	125	3.3, 5	-40 to 125	1.6	SOT23-5	-
ACS37042	285 / -	±10, ±30	125	3.3, 5	-40 to 125	1.6	SOT23-5	-

Integrated Current Sensors (<200 A) (Continued)

Part Number	Working voltage for Basic/ Reinforced Isolation V	Measurement Range A	Bandwidth kHz	Supply Voltage V	Temperature Range °C	Primary Conductor Resistance mΩ	Package Type(s)	Features
ACS732/3LA	1000 / 500	±20, ±40, ±65, 65, ±75	1000	3.3, 5	-40 to 125	1	SOIC-16	Overcurrent fault pin
ACS732/3MA	1097 / 565	±65	1000	3.3, 5	-40 to 125	1	SOIC-16	Overcurrent fault pin
ACS71240EX	Functional isolation only	<±10, ±30, 50	120	3.3, 5	-40 to 125	0.6	QFN-12	Overcurrent fault pin
ACS71240LC	297 / -	<±10, ±30, ±45, 50	120	3.3, 5	-40 to 150	1.2	SOIC-8	Overcurrent fault pin
ACS37010/2	840 / 420	±30, ±50	450	3.3, 5	-40 to 150	0.68	SOIC-6	Overcurrent fault pin or zero current reference pin
ACS37030/2LZ	840 / 420	±20, ±40, ±65	5000	3.3	-40 to 150	0.6	SOIC-6	Overcurrent fault pin or zero current reference pin
ACS37030/2MY	1167/592	±40, ±65	5000	3.3	-40 to 150	0.8	SOIC-6	Overcurrent fault pin or zero current reference pin
ACS71010	1097 / 565	±50, ±80	400	5	-40 to 105	0.85	SOIC-16	Zero Current Reference Voltage Output, Adjustable Overcurrent Fault
ACS37035	1000 / 500	±20, ±40, ±65	1000	3.3, 5	-40 to 125	1	SOIC-16	Adjustable Overcurrent Fault
CT415/6/7/8	560 / 280	±20, 20, ±30, 30, ±50, 50, ±65, 65	1000	3.3, 5	-40 to 125	0.5	SOIC-8	TMR, Overcurrent Fault pin
CT425/6/7/8	560 / 280	±20, 20, ±30, 30, ±50, 50, ±65, 65	1000	3.3, 5	-40 to 125	0.5	SOIC-8	TMR
CT430/1/2/3	1100 / 550	±20, 20, ±30, ±30, ±40, ±50, 50, ±65, 65, ±70, 70	1000	3.3, 5	-40 to 125	0.5	SOIC-16	TMR, Zero current reference pin, Overcurrent fault pin

Integrated Current Sensors (<200 A) (Continued)

Part Number	Working voltage for Basic/ Reinforced Isolation V	Measurement Range A	Bandwidth kHz	Supply Voltage V	Temperature Range °C	Primary Conductor Resistance mΩ	Package Type(s)	Features
CT4022	560/280	±12, ±24, ±40, ±50, ±65	500	3.3, 5	-40 to 125	1	SOIC-8	
CT4032	1097/565	±20, ±40, ±50, ±65	500	3.3, 5	-40 to 125	1	SOIC-16	
ACS37003	1144 / 571	±180	400	3.3, 5	-40 to 125	0.265	SOIC-16	Zero current reference pin
ACS780/1	Functional isolation only	±50, 50, ±100, 100, ±150, 150	120	3.3, 5	-40 to 125, -40 to 150	0.2	PSOF-7	
ACS772	960 / 475	±50, ±150, ±200, 100	200	5	-40 to 85, -40 to 125, -40 to 150	0.1	PFF-5, SMT-5	
ACS773	960 / 475	±50, ±100, ±200	200	3.3	-40 to 85, -40 to 150	0.1	PFF-5, SMT-5	
ACS72981	Functional isolation only	± 50, 100, 150	250	3.3, 5	-40 to 125, -40 to 150	0.2	PSOF-7	
ACS37220EZ	Functional isolation only	±100, ±150, ±200	150	3.3, 5	-40 to 150	0.10	QFN-7	Overcurrent fault pin
ACS37220MZ	1097 / 565	±60	150	3.3, 5	-40 to 150	0.80	SOIC-6	

Field Sensors (>200 A)

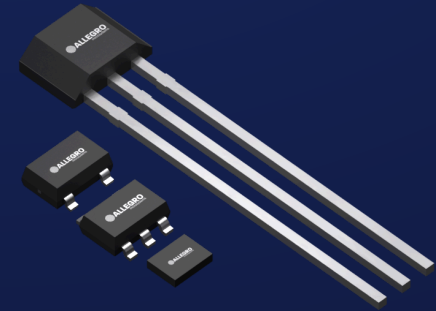
Part Number	Sensing Topology	Type	Typical Sensitivity mV/G	Quiescent Output V	Bandwidth kHz	Supply Voltage V	Temperature Range °C	Package Type(s)	Features
CT220	Coreless, U-Core	Factory Programmable	±30, 45, 29.7, 15, 9.9	Typ 50% VCC	30	3.3, 5	-40 to 85, -40 to 125	SOT23-5	Ultra-low current consumption (1.2 mA), Overcurrent fault pin
CT455	Coreless, U-Core	Customer and Factory Programmable	8.33-66.7, 4.2-33.33, 4.15-33.3, 2.08-16.67, 66.67, 33.3, 16.67, 8.33, 4.16, 4.15, 2	Typ 50% VCC, Typ 10% VCC, 0.5, 1.65	1000	5	-40 to 125	TSSOP-8, SOIC-8	300 ns response time
CT456	Coreless	Customer and Factory Programmable	8.33-66.7, 4.2-33.33, 4.15-33.3, 2.08-16.67, 66.67, 33.3, 16.67, 8.33, 4.16, 4.15, 2	Typ 50% VCC, Typ 10% VCC, 0.5, 1.65	1000	5	-40 to 125	TSSOP-8, SOIC-8	300 ns response time
ACS37503	C-Core	Customer Programmable	0.5 to 1.1, 1.1 to 2.42	Typ 50% VCC	350	5	-40 to 150	SIP-4	Highest Accuracy, overcurrent, overtemperature fault
ACS37600	C-Core	Customer Programmable	0.8 to 18, -0.8 to -18	2.5	100 to 400	5	-40 to 125	SIP-4	Overcurrent fault with 1.5 µs response time
ACS37610	Coreless	Customer Programmable	5, 10, 20, 50	Typ 50% VCC, Typ 10% VCC	250	3.3, 5	-40 to 150	TSSOP-8	Highest accuracy coreless, overcurrent/temperature pin
ACS37612	Coreless	Factory Programmable	5 to 15	Typ 50% VCC, Typ 10% VCC	240	3.3, 5	-40 to 150	TSSOP-8	2 µs response time
ACS37630	U-Core	Factory Programmable	4	2.5	250	5	-40 to 150	SOIC-8	
ACS70310	C-Core	Customer Programmable	0.5 to 11.5	Typ 50% VCC, Typ 10% VCC	240	5	-40 to 150	SIP-4	2 µs response time
ACS70311	C-Core	Customer Programmable	0.5 to 11.5	Typ 50% VCC, Typ 10% VCC	240	5	-40 to 150	SIP-4	2 µs response time
ACS70312	C-Core	Customer Programmable	0.5 to 0.9, 0.9 to 1.88	Typ 50% VCC, Typ 10% VCC	240	5	-40 to 150	SIP-4	Overcurrent fault pin, 4.5 kG input range

* Commercial

Magnetic Switches and Latches

Ultra-Low Power Consumption

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Hall-Effect Latches and Bipolar Switches

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
APS12000	Open-drain	1D Planar	3.3 to 24	-40 to 150	SOT23W-3, SIP-3	35	-35
APS12060	Open-drain	1D Vertical	3.3 to 24	-40 to 150	SOT23W-3, SIP-3	35, 95	-35, -95
APS12200	Open-drain	1D Planar	2.8 to 24	-40 to 150	SOT23W-3, SIP-3	20	-20
APS12202	Open-drain	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-3	25	-25
APS12203 NEW	Open-drain	1D Planar	2.7 to 26	-40 to 125	SOT23-3	10, 20, 30, 50, 95, 150, 200	-10, -20, -30, -50, -95, -150, -200
APS12205	Open-drain	1D Planar	2.8 to 5.5	-40 to 85, -40 to 150	SOT23W-3, SIP-3	22	-22
APS12210	Open-drain	1D Planar	2.8 to 24	-40 to 150	SOT23W-3, SIP-3	50	-50
APS12212	Open-drain	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-3	50	-50
APS12215	Open-drain	1D Planar	2.8 to 5.5	-40 to 150	SOT23W-3, SIP-3	50	-50
APS12230	Open-drain	1D Planar	2.8 to 24	-40 to 150	SOT23W-3, SIP-3	150	-150
APS12235	Open-drain	1D Planar	2.8 to 5.5	-40 to 150	SOT23W-3, SIP-3	150	-150
APS12400	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-3	80 (max)	-80 (min)
APS12450	Open-drain	1D Planar	3 to 30	-40 to 150	SOT23W-3, SIP-3	22, 50, 150	-22, -50, -150
APS12800	Current	1D Planar	3 to 30	-40 to 150	SOT23W-3, SIP-3	80 (max)	-80 (min)
APS13290	Open-drain	1D Planar	2.8 to 2.4	-40 to 125	SOT23W-3, SIP-3	20	-20
APS13291	Open-drain	1D Planar	2.8 to 24	-40 to 125	SOT23W-3, SIP-3	50	-50

Dual Hall-Effect Latches

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
A1262	Open-drain	2D	4 to 24	-40 to 85, -40 to 150	SOT23W-5, SIP-4	17	-17
APS12625	Open-drain	2D	2.8 to 5.5	-40 to 150	SOT23W-5	25	-25
APS12626	Open-drain	2D	2.8 to 5.5	-40 to 150	SOT23W-5	25	-25
APS12627	Open-drain	2D	2.8 to 5.5	-40 to 150	SOT23W-5	25	-25
APS12628	Open-drain	2D	2.8 to 5.5	-40 to 150	SOT23W-5	25	-25

Two-Wire Hall-Effect Switches

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
A1130	Current	1D Vertical	3 to 24	-40 to 150	SOT23W-3, SIP-3	55	35
A1131	Current	1D Vertical	3 to 6	-40 to 85	SOT23W-3	95	70
A1132	Current	1D Vertical	3 to 12	-40 to 125	SOT23W-3	60	35
A1190	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-2	10-20 (Programmable)	--
A1192	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-2	10-20 (Programmable)	--
A1193	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-2	10-20 (Programmable)	--
APS11500	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-3	50-110	45-105
APS11800	Current	1D Planar	3 to 30	-40 to 150	SOT23W-3	50-110	45-105
APS11900	Current	1D Planar	3 to 24	-40 to 150	SOT23W-3, SIP-3	±10-±600 (Programmable)	--

Three-Wire Hall-Effect Switches

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
A1120	Open-drain	1D Planar	3.0 to 24	-40 to 150	SOT23W-3, SIP-3	35	25
A1126	Open-drain	1D Planar	3.0 to 24	-40 to 150	SOT23W-3, SIP-3	±38	±20
A1128	Open-drain	1D Planar	3.0 to 24	-40 to 150	SOT23W-3, SIP-3	-650 to 20, -20 to 650 (Programmable)	--
A1160	Open-drain	1D Planar	3.8 to 24	-40 to 150	SOT23W-5	180	125
A1162	Open-drain	1D Planar	3.8 to 24	-40 to 150	TSSOP-8	250 (max) (Programmable)	-5 (min)
A3295	Open-drain	1D Planar	3.0 to 24	-40 to 125	SOT23W-3, SIP-3	75 (max)	5 (min)
APS11000	Open-drain	1D Planar	3.3 to 24	-40 to 150	SOT23W-3, SIP-3	35, ±35, 280	2.5, ±25, 225
APS11060	Open-drain	1D Vertical	3.3 to 24	-40 to 150	SOT23W-3, SIP-3	35, ±35, ±95	25, ±25, ±70
APS11200	Open-drain	1D Planar	2.8 to 24	-40 to 150	SOT23W-3, SIP-3	35	25
APS11202	Open-drain	1D Planar	2.8 to 24	-40 to 150	SOT23W-3, SIP-3	35	25
APS11203 NEW	Open-drain	1D Planar	2.7 to 26	-40 to 125	SOT23-3	15, 30, 95, 200, 280, 400	10, 20, 70, 150, 225, 335
APS11205	Open-drain	1D Planar	2.8 to 5.5	-40 to 150	SOT23W-3, SIP-3	35	25
APS11450	Open-drain	1D Planar	3 to 30	-40 to 150	SOT23W-3, SIP-3	35, 180, 280	25, 125, 225
APS13295	Open-drain	1D Planar	2.8 to 24	-40 to 125	SOT23W-3, SIP-3	35	25

Micropower Hall-Effect Switches

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
A1171	Push-pull	1D Planar	1.6 to 3.5	-40 to 85	DFN/MLP-6	±32	±26
A1266	Open-drain	3D	2.5 to 5.5	-40 to 85	SOT23W-5, SIP-3	±25	±17.5
A3211	Open-drain	1D Planar	2.5 to 3.5	-40 to 85, -40 to 150	SOT23W-3, SIP-3	37, -40	31, -34
A3212	Open-drain	1D Planar	2.5 to 3.5	-40 to 85, -40 to 150	SOT23W-3, SIP-3	37, -40	31, -34
A3213	Open-drain	1D Planar	2.5 to 5.5	-40 to 85, -40 to 150	SOT23W-3, SIP-3	42, -48	32, 38
A3214	Open-drain	1D Planar	2.5 to 5.5	-40 to 85, -40 to 150	SOT23W-3, SIP-3	42, -48	32, -38

Micropower Hall-Effect Switches (Continued)

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
APS11700	Open-drain	1D Planar	3.3 to 24	-40 to 150	SOT23W-3, SIP-3	±40, 40, 280	±22.5, 22.5, 225
APS11753 NEW	Push-pull	1D Planar	2.2 to 5.5	-40 to 125, -40 to 150	SOT23-3	15, 30, 400	10, 20, 335
APS11760	Open-drain	1D Vertical	3.3 to 24	-40 to 150	SOT23-3, SIP-3	±40, 40, ±280	±22.5, 22.5, ±225
APS12753 NEW	Push-pull	1D Planar	2.2 to 5.5	-40 to 125, -40 to 150	SOT23-3	10, 20	-10, -20
APS13568	Current	1D Planar	7 to 24	-40 to 85, -40 to 125	SOIC-8	±40	±25
CT8111	Push-pull or Open-drain	Magnetoresistive	1.7 to 5.5	-40 to 85, -40 to 125	SOT23-3	15, 30	10, 20
CT8112	Push-pull or Open-drain	Magnetoresistive	1.7 to 5.5	-40 to 85, -40 to 125	SOT23-3	15, 30	10, 20
CT8122	Push-pull or Open-drain	Magnetoresistive	1.7 to 5.5	-40 to 85, -40 to 125	SOT23-3	10	0.1
CT8131	Push-pull or Open-drain	Magnetoresistive	1.7 to 5.5	-40 to 85, -40 to 125	SOT23-3, LGA-4	±30	±20
CT8132	Push-pull or Open-drain	Magnetoresistive	1.7 to 5.5	-40 to 85, -40 to 125	SOT23-3, LGA-4	±9, ±15, ±30, ±70	13

Special Purpose Devices

Part Number	Output	Sensor Type	Operating Input Voltage Range V	Temperature Range °C	Package	Typical BOP G	Typical BRP G
A1205	Open-drain	1D	3.8 to 24	-40 to 150	SIP-3, SOT23W-3	15	-15
A1210	Open-drain	1D	3.8 to 24	-40 to 85, -40 to 150	SIP-3, SOT23W-3	78	-78
A1211	Open-drain	1D	3.8 to 24	-40 to 150	SIP-3	87	-95
A1212	Open-drain	1D	3.8 to 24	-40 to 150	SIP-3, SOT23W-3	107	-117
A1213	Open-drain	1D	3.8 to 24	-40 to 150	SIP-3, SOT23W-3	200 (max)	-200 (min)
A1214	Open-drain	1D	3.8 to 24	-40 to 150	SIP-3, SOT23W-3	300 (max)	-300 (min)
APS12170	Current	Planar	3.8 to 16	-40 to 175	SIP-3, SOT23W-3	175 (max)	-175 (min)

Magnetic Position Sensors

Contactless Position Sensing

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Factory Programmed Linear Sensors

Part Number	Features	Supply Voltage V	Supply Current mA	Typical Sensitivity mV/G	Output Bandwidth kHz	Temperature Range °C	Package Type(s)
A1304	Hall, Analog Bipolar Output	3.0 to 3.6	9	0.5, 4	20	-40 to 85	SOT23W-3
A1308	Hall, Analog Bipolar Output	4.5 to 5.5	11.5	0.5, 1.3, 2.5, 3.125, 5	20	-40 to 125, -40 to 150	SIP-3, SOT23W-3
A1309	Hall, Analog Bipolar Output	4.5 to 5.5	11.5	9, -9	20	-40 to 125, -40 to 150	SIP-3, SOT23W-3
A1315	Hall, Analog Bipolar Output, Output Voltage Clamps	3.0 to 3.63	10	1.35, 2.5, 5	20	-40 to 150	SIP-3, SOT23W-3
A1324	Hall, Low-Noise, Analog Bipolar Output	4.5 to 5.5	9	5	17	-40 to 150	SIP-3, SOT23W-3
A1325	Hall, Low-Noise, Analog Bipolar Output	4.5 to 5.5	9	3.125	17	-40 to 150	SIP-3, SOT23W-3
A1326	Hall, Low-Noise, Analog Bipolar Output	4.5 to 5.5	9	2.5	17	-40 to 150	SIP-3, SOT23W-3
A1359	Hall, Analog & PWM Unipolar Output, Output Voltage Clamps	4.5 to 5.5	13.5	-9, +9	2	-40 to 150	TSSOP-8
A1391	Hall, Micropower, Analog Bipolar Output, VREF Pin, EN Pin	2.5 to 3.5	3.2	1.25	10	-20 to 85	DFN-6
A1392	Hall, Micropower, Analog Bipolar Output, VREF Pin, EN Pin	2.5 to 3.5	3.2	2.5	10	-20 to 85	DFN-6
A1393	Hall, Micropower, Analog Bipolar Output, VREF Pin, EN Pin	2.5 to 3.5	3.2	5	10	-20 to 85	DFN-6
A1395	Hall, Micropower, Analog Bipolar Output, VREF Pin, EN Pin	2.5 to 3.5	3.2	10	10	-20 to 85	DFN-6
A31004	Hall, Analog Bipolar Output, Output Voltage Clamps	3.0 to 3.63	10	3.3	20	-40 to 150	SOT23W-3
ALS31000	Hall, Analog Bipolar Output, Output Voltage Clamps	4.5 to 5.5	11.5	2.4	20	-40 to 150	SOT23W-3

Factory Programmed Linear Sensors (Continued)

Part Number	Features	Supply Voltage V	Supply Current mA	Typical Sensitivity mV/G	Output Bandwidth kHz	Temperature Range °C	Package Type(s)
ALS31001	Hall, Analog Bipolar Output, Output Voltage Clamps	3.0 to 3.6 or 4.5 to 5.5	5.5	1.8, 2.5	20	-40 to 150	SIP-3
A31010	Hall, Low-power, Analog Unipolar Output, EN Pin	2.65 to 3.5	3.6	3.78	10	-20 to 85	DFN-6
CT100	TMR, Analog Output	1.7 to 5.5	-	1.35	-	-40 to 85, -40 to 125, -40 to 150	SOT23-6, DFN-6
CT8150	TMR, Analog Output	1.7 to 5.5	5 µA (Average)	16.5	-	-40 to 85, -40 to 125	SOT23-3, LGA-4
CT8152	TMR, Analog/Digital Output	1.7 to 5.5	Analog: 5 µA (Average) Digital: 900 nA (Average)	16.5	-	-40 to 85, -40 to 125	SOT23-5, LGA-4
CT120	TMR, Analog Output	1.0 to 5.0	-	-	-	-40 to 85	WFLOP-4
CT130	Z-axis TMR, Analog Output	1.0 to 5.5	-	0.24	-	-40 to 85	WFLOP-4
A31015	Hall, Nanopower, EN Pin	1.65 to 5.5	-	0.65, 3.3, 4.7, 11	15	-40 to 125	DFN-4

Customer Programmable Linear Sensors

Part Number	Features	Supply Voltage V	Supply Current mA	Typical Sensitivity mV/G	Output Bandwidth kHz	Temperature Range °C	Package Type(s)
A1342		4.5 to 5.5	10	.0167 to .598 %FSO/G	0.04 to 7.4	-40 to 150	SIP-3
A1343	SENT, PWM	4.5 to 5.5	10	0.025 to 0.5 %FSO/G	0.188 to 3.0	-40 to 150	TSSOP-8
A1377	Analog	4.5 to 5.5	10	1 mV/G to 14.1 mV/G	2.5	-40 to 125	SIP-3
A31102	SENT, PWM	4.5 to 5.5	11-12	0.0333 to .2016 %FSO/G, 0.05 to .8 %FSO/G	0.089 to 8.5	-40 to 150	TSSOP-14
A1454	I2C	2.65 to 3.5	5	2 or 4 LSB/G at 12-bit	2	-40 to 125	TSSOP-8
ATS344	Two-wire current-mode PWM	3.75 to 9.5	HIGH: 16 LOW: 10	0 to 0.8 %FSO/G	0.25 to 4.0	-40 to 150	SIP-3
A31020	I2C, Z- or X-Axis Sensing	1.6 to 3.6	2.3 (Z-Axis) 3.2 (X-Axis)	7.86 LSB/G to 60.3 LSB/G at 12-bits	0.095 to 15.2	-40 to 85	DFN-8
A31021	SPI/RSDO, Z- or X-Axis Sensing	1.6 to 3.6	2.3 (Z-Axis) 3.2 (X-Axis)	7.86 LSB/G to 60.3 LSB/G at 12-bits	0.095 to 15.2	-40 to 85	DFN-8

Motor Position Sensors

Part Number	Output Type	Supply Voltage V	Resolution	Refresh Rate μs	Response Time μs	Features	Package Type(s)	Temperature Range °C
A1330	Analog, PWM	4.5 to 5.5	12 bit	25	120	Short-stroke mode, Configurable output voltage clamps	TSSOP-8	-40 to 150
A1333	SPI, PWM, ABI or UVW	4.0 to 16.5	12 bit	1	10	Advanced Diagnostics, 32 Segment Linearization	TSSOP-14, eTSSOP-24	-40 to 150
A1335	I2C, SENT, SPI	4.5 to 5.5	12 bit	32	60	I2C output	TSSOP-14, eTSSOP-24	-40 to 125, -40 to 150
A1337	SPI, SENT PWM	3.7 to 16	12 bit	25	60	Advanced Diagnostics, Low-power mode/turns counter	TSSOP-14, TSSOP-24	-40 to 150
A1338	SPI, SENT, PWM	3.7 to 16	12 bit	25	60	Advanced Diagnostics	TSSOP-14, TSSOP-24	-40 to 150
A1339	SPI, PWM, ABI or UVW	4.0 to 16.5	12 bit	1	10	High Diagnostic Coverage, Low-power mode/turns counter	TSSOP-14, eTSSOP-24	-40 to 150
A33020	ABI, UVW, SPI, PWM	3.7 to 18	12 bit	2	25	Stray Field Immune, Precision, Hall-Effect Angle Sensor IC	TSSOP-14, eTSSOP-24	-40 to 150
A33022	SENT, PWM, SPI	3.7 to 18	12 bit	2	25	Stray Field Immune, Precision, Hall-Effect Angle Sensor IC	TSSOP-14, eTSSOP-24	-40 to 150
A33023	ABI, UVW, SPI, PWM	3.7 to 18	12 bit	2	25	Stray Field Immune, High-Speed, Hall-Effect Angle Sensor IC	TSSOP-14, eTSSOP-24	-40 to 150
A33002	SPI, PWM, SENT	3.7 to 5.5	12 bit	2	17	32 segment linearization, Manchester Programming (needs pulses to Vcc)	TSSOP-14	-40 to 150
A33003	SPI, PWM, SENT	3.7 to 5.5	12 bit	2	17	32 segment linearization, Manchester Programming (uses Vout pin)	TSSOP-14	-40 to 150
A33110	SPI, PWM, ABI & UVW	3.7 to 18	14 bit	2	18	TMR and vertical Hall as independent angle sensing channels.	TSSOP-14	-40 to 125
A33115	SPI, PWM, ABI & UVW	3.7 to 18	14 bit	2	18	TMR and vertical Hall as independent angle sensing channels, with low-power mode/turns counter.	TSSOP-14	-40 to 125

Motor Position Sensors (Continued)

Part Number	Output Type	Supply Voltage V	Resolution	Refresh Rate μs	Response Time μs	Features	Package Type(s)	Temperature Range °C
AAS33001	SPI, PWM, ABI or UVW	3.7 to 18	12 bit	1	10	Integrated Diagnostics, 32 segment linearization	TSSOP-14, eTSSOP-24	-40 to 150
AAS33051	SPI, PWM, ABI or UVW	3.7 to 18	12 bit	1	10	32 segment Linearization, Low Power Mode/turns counter	TSSOP-14, eTSSOP-24	-40 to 150
A33230	Analog	4.5 to 5.5	11 bit	--	7	Two selectable sensitivities, SIN/COS Output	SOT-23W-5	-40 to 150
CT310	Analog	1 to 5.5	14 bit	--	1	TMR, low angle error, SIN/COS Output	TSSOP-8, DFN-8	-40 to 85, -40 to 125, -40 to 150
A33203/4	Analog	1 to 5.5	14 bit	--	1	Lower cost than CT310	TSSOP-8	-40 to 150

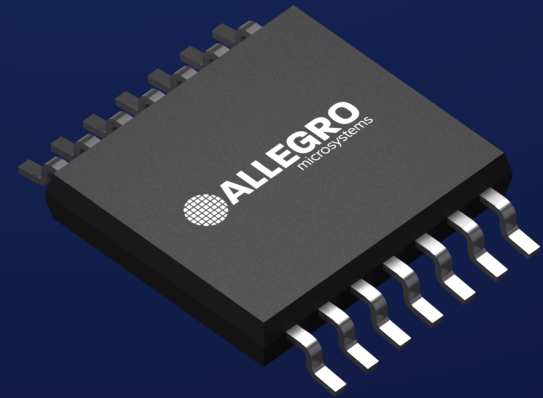
Multi-Axis Linear and Angle Sensors

Part Number	Output Type	Supply Voltage V	On-Chip Angle Calculation & Linearization	Active Magnetic Axes	Max Magnetic Field G	Temperature Range °C	Low Power Mode	Package Type(s)	Market	ASIL
A31301	I2C, SPI	2.65 to 3.6	Angle Calculation	3 Axes	600, 1400, 2000	-40 to 85	Yes	DFN-10	Industrial	No
A31315	Analog, SENT, PWM	4.5 to 5.5	Yes	2 Axes (XY, XZ or YZ)	1000	-40 to 150	No	SOIC-8, TSSOP-14	Automotive, Industrial	ASIL B, ASIL D
A31316	SENT, PWM	4.5 to 5.5	Yes	2 Axes (XY, XZ, or YZ)	1000	-40 to 150	No	SIP-3	Automotive, Industrial	ASIL B
ALS31300	I2C	2.65 to 3.35	No	3 Axes (X, Y, Z)	500, 1000, 2000	-40 to 85	Yes	DFN-10	Industrial	No
ALS31313	I2C	2.65 to 3.35	No	3 Axes (X, Y, Z)	500, 1000, 2000	-40 to 125	Yes	TSSOP-8	Industrial	No
A31331	I2C, SPI	2.65 to 3.6	Angle Calculation	3 Axes (X, Y, Z)	600	-40 to 125	Yes	TSSOP-8	Automotive	QM

Inductive Position Sensors

Precise Contactless Angle and Motor Position Sensing

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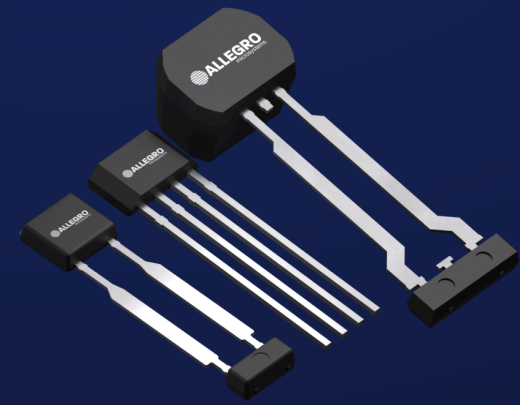
Motor Position Sensors

Part Number	Output Type	Programming	Safety Rating	Temperature Range °C	Features	Package
A17802	Differential Sin/Cos	Customer Programmable	ASIL C	-40 to 160	Advanced integrated digital compensation to enhance accuracy up to 250keRPM with <0.5°el error	TSSOP-14
A17803	SPI, ABI, PWM, motorSENT, SENT	Customer Programmable	ASIL C	-40 to 160	High Speed digital output protocols with advanced digital compensation up to 250keRPM with <0.5°el error	TSSOP-14

Magnetic Speed Sensors

Dynamic Compensation for System-Level Variation

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Camshaft Speed Sensors

Part Number	Sensor Type	Integrated Magnet	Hall or GMR	ASIL	Integrated EMC components	Package	Features
A16311	True Power-On State	No	Hall	No	Yes	SIP-3	EEPROM Programmable, Chopper Stabilized, Twist-independent
ATS601	Defined Power-On State	Yes	Hall	No	No	SIP-4	Factory Programmable, Air Gap Independent Switch Points, Twist-independent
ATS16301	True Power-On State	Yes	Hall	No	Yes	SIP-3	EEPROM Programmable, Chopper Stabilized, Twist-independent
ATS16351	True Power-On State	Yes	GMR	ASIL B	Yes	SIP-3	EEPROM Programmable, Stray Magnetic Field immunity, Integrated Diagnostics, Twist-independent
A16100	Differential	No	Hall	No	Yes	SIP-3	EEPROM Programmable, Air Gap Independent Switch Points

Crankshaft Speed Sensors

Part Number	Rotation Information	Integrated Magnet	Hall or GMR	ASIL	Integrated EMC components	Package	Features
A1422	Speed	No	Hall	No	No	SIP-4	AC-coupled, High Accuracy
A16601	Speed	No	Hall	No	Yes	SIP-3	Reverse Battery Protection, 20 Hz to 20 kHz Operation, Zero Crossing Switch Point
ATS627	Speed	Yes	Hall	No	No	SIP-4	Low Jitter, Undervoltage Lockout
A1694	Speed & Direction	No	Hall	No	No	SIP-4	Low Jitter, Offset Compensation
A1696	Speed & Direction	No	Hall	No	Yes	SIP-3	Exceptionally Low Jitter, enhanced algorithm for hybrid vehicles
ATS694	Speed & Direction	Yes	Hall	No	Yes	SIP-3	Crankshaft Position Sensor IC With Speed and Direction Output
ATS16951	Speed & Direction	Yes	GMR	ASIL B	Yes	SIP-3	EEPROM-Programmable, Programmable Pulse Location

Transmission Sensors

Part Number	Output Interface	Rotation Information	Integrated Magnet	Hall or GMR	ASIL	Integrated EMC Components	Package	Features
A19420	2-wire	Speed	No	Hall	ASIL B	Yes	SIP-2	EEPROM-programmable, Stray Magnetic Field Immunity
ATS684	2-wire	Speed	Yes	Hall	No	Yes	SIP-3	Integrated Scan, Adaptive Threshold Sensing
ATS19420	2-wire	Speed	Yes	Hall	ASIL B	Yes	SIP-2	EEPROM-programmable, Stray Magnetic Field Immunity
ATS19480	2-wire	Speed	Yes	GMR	Yes	Yes	SIP-3	Orientation Compatible, Stray Magnetic Field Immunity
A19520	2-wire	Speed & Direction	No	Hall	ASIL B	Yes	SIP-2	EEPROM-programmable, Stray Magnetic Field Immunity
ATS19520	2-wire	Speed & Direction	Yes	Hall	ASIL B	Yes	SIP-2	EEPROM-programmable, Stray Magnetic Field Immunity
ATS19580	2-wire	Speed & Direction	Yes	GMR	ASIL B	Yes	SIP-3	Orientation Compatible, Stray Magnetic Field Immunity
ATS19581	2-wire	Speed &/or Direction	Yes	GMR	ASIL B	No	SIP-3	Stray Magnetic Field Immunity, Test Pin Access
A1667	3-wire	Speed	No	Hall	No	No	SOIC-8, SIP-4	Fast Startup, Undervoltage Lockout
ATS667	3-wire	Speed	Yes	Hall	No	No	SIP-4	Fast Startup, Small Signal Lockout
ATS668	3-wire	Speed	Yes	Hall	No	Yes	SIP-3	Undervoltage Lockout, Small Signal Lockout
ATS693	3-wire	Speed & Direction	Yes	Hall	No	No	SIP-4	Integrated Scan Path, Undervoltage Lockout
A19530	3-wire	Speed &/or Direction	No	Hall	ASIL B	Yes	SIP-3	Integrated Scan Path, Configurable Output Protocol Options, O/S Detection

Wheel Speed Sensors

Part Number	Rotation Information	SIP or Back-biased	Hall or GMR	ASIL	Integrated EMC Components	Package	Features
A19200	Speed	No	Hall	ASIL B(D)	Yes	SIP-2	Integrated Scan, ±2% Total Pitch Deviation, True Zero Speed Operation
A19250	Speed	No	GMR	Yes	Yes	SIP-2	EEPROM-programmable, Compatible Orientation,
ATS682	Speed	Yes	Hall	No	No	SIP-4	Running-mode Calibration, Automatic Offset Adjustment
ATS19200	Speed	Yes	Hall	ASIL B(D)	Yes	SIP-3	EEPROM-programmable
A19302	Speed & Direction	No	Hall	ASIL B(D)	Yes	SIP-2	EEPROM Programmable, PW or AK Protocol
A19350	Speed & Direction	No	GMR	Yes	Yes	SIP-2	EEPROM Programmable, Flexible Orientation, PW Protocol
A19352	Speed & Direction	No	GMR	ASIL B	Yes	SIP-2	Advanced AK Protocol, Wide Air Gap Capability
A19360	Speed & Direction	No	GMR	ASIL B(D)	Yes	SIP-2	AK or PW Protocol, 4 or 8 Event Resolution,

2-Wheeler Speed Sensors

Part Number	Output Protocol	Rotation Information	Integrated Magnet	Hall or GMR	ASIL	Integrated EMC Components	Package	Features
A1468	3-wire	Speed	No	Hall	No	No	SIP-4	Reverse Battery Protection, Automatic Offset Adjustment, Running-mode Calibration
A1422	3-wire	Speed	No	Hall	No	No	SIP-4	AC-Coupled differential sensor with ± 35 G max switch points
A1425	3-wire	Speed	No	Hall	No	No	SIP-4	AC-Coupled differential sensor with ± 11 G max switch points
A1696	3-wire	Speed & Direction	No	Hall	No	Yes	SIP-3	Exceptionally Low Jitter, enhanced algorithm for hybrid vehicles
ATS468	3-wire	Speed	Yes	Hall	No	No	SIP-4	Reverse Battery Protection, Integrated Scan Path, Automatic Offset Adjustment
A17201	2-wire	Speed	No	Hall	No	Yes	SIP-3, SIP-2	AC-Coupled Differential Sensor
A19200	2-wire	Speed	No	Hall	Yes	Yes	SIP-2	Integrated Scan, $\pm 2\%$ Total Pitch Deviation, True Zero Speed Operation
ATS682	2-wire	Speed	Yes	Hall	No	No	SIP-4	Running-mode Calibration, Automatic Offset Adjustment
ATS19200	2-wire	Speed	Yes	Hall	Yes	Yes	SIP-3	EEPROM-programmable
ATS684	2-wire	Speed	Yes	Hall	No	Yes	SIP-3	Integrated Scan, Adaptive Threshold Sensing
ATS19420	2-wire	Speed	Yes	Hall	Yes	Yes	SIP-2	EEPROM-programmable, Stray Magnetic Field Immunity
ATS19480	2-wire	Speed	Yes	GMR	Yes	Yes	SIP-3	Orientation Compatible, Stray Magnetic Field Immunity
ATS19580	2-wire	Speed & Direction	Yes	GMR	Yes	Yes	SIP-3	Orientation Compatible, Stray Magnetic Field Immunity
A1694	3-wire	Speed & Direction	No	Hall	No	Yes	SIP-4	Crankshaft sensor for powertrain, speed and direction in standard package

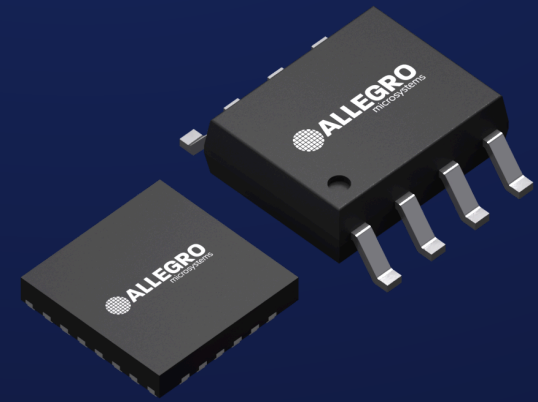
General Purpose

Part Number	Output Interface	SIP or Back-biased	ASIL	Target Feature Pitch	Package	Features
A1468	3-wire	No	No	Standard	SIP-4	Reverse Battery Protection, Automatic Offset Adjustment, Running-mode Calibration
ATS468	3-wire	Yes	No	Standard	SIP-4	Reverse Battery Protection, Integrated Scan Path, Automatic Offset Adjustment
A1605	Dual output	Yes	No	Standard	SIP-4	Dual outputs are "AB encoded" or " XOR and direction"
ATS605	Dual output	No	No	Standard	SIP-4	Integrated Scan, Optional Output with Direction Detection, Stray Magnetic Field Immunity
A17501	Dual output	No	ASIL B(D)	Standard	SIP-4	EEPROM Programmable, Stray Magnetic Field Immunity, Optional Fault Detect
A17502	Dual output	No	ASIL B(D)	Narrow	SIP-4	40 kHz Max switching bandwidth, EEPROM Programmable, Stray Magnetic Field Immunity
ATS17501	Dual output	Yes	ASIL B(D)	Standard	SIP-4	EEPROM Programmable, Stray Magnetic Field Immunity, Optional Fault Detect
ATS17502	Dual output	Yes	ASIL B(D)	Standard	SIP-4	EEPROM Programmable, Stray Magnetic Field Immunity, Optional Fault Detect

Interface ICs

Fast and Accurate Output

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Sensor Interface ICs

Part Number	Interface Type	Interfaces Output	Range	Diagnostics	Package	Features
A6850	2-wire current output	Voltage	--	Yes	SOIC-8	-Dual channel with independent control -Low voltage drop with high-side low resistance sensing -Built in protection and diagnostics for open or shorts -Output current limiting on each channel -Low operating and sleep mode currents
A17700	Pressure Sensor	PWM, SENT, Analog	1.5 to 10 kOhm	Yes	QFN-24	-On-chip Poly(4,4) compensation for improved accuracy over temperature, compensating both IC and bridge -Manchester interface for programming through single OUT pin -Suite of diagnostics to allow for safety-critical systems fault detection

DCDC Regulators

Wide Input Voltage Range

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DCDC Power Modules

Part Number	Features	Topology	Operating Input Voltage Range V	Integrated Components	Output Current A	Converter Switching Frequency MHz	Package Type(s)
APM818103	Synchronous, Low EMI, AEC-Q100 Grade 1 Qualified	Buck	3.5 to 36	Boot Cap, Bypass Cap	3	0.4 to 2.4	QFN-24
APM81911	Synchronous, Low EMI, AEC-Q100 Grade 1 Qualified	Buck	3.5 to 36	Boot Cap, Bypass Cap, Inductor	3	0.25 to 2.4	QFN-32
APM81815	Synchronous, Low EMI, AEC-Q100 Grade 1 Qualified, Functional safety capable	Buck	5 to 72	Boot Cap, Bypass Cap, Compensation Network	1.5	0.4 to 2.4	QFN-24

DCDC Converters

Part Number	Features	Topology	Operating Input Voltage Range V	Output Current A	Converter Switching Frequency MHz	Package Type(s)
A4450	Seamless Buck/Boost Transition, Selectable Frequency Dithering	Buck-Boost	3 to 36	2	0.25 to 2.2	QFN-20
A4481	Integrated Protective Circuitry, Power OK	LDO	5.25 to 40	0.05	N/A	SOIC-8
A8586	Asynchronous, Frequency Dithering	Buck	3.8 to 36	3.5	0.25 to 4	DFN-10, SOIC-8
A8587	Asynchronous, Frequency Dithering	Buck	3.8 to 36	2	0.25 to 4	DFN-10
A8660	PWM Frequency Dithering, Synchronization, and NPOR	Buck	3 to 45	10	0.2 to 2.2	QFN-20
A81805	Synchronous Buck, Ultralow 6uA Iq, PGOOD	Buck	3.5 to 36	2.5	0.4 to 2.5	QFN-20
APM81815	Highly integrated, Synchronous, Low EMI, Functional safety capable	Buck	5 to 72	1.5	0.4 to 2.4	QFN-24
ARG81800	Synchronous Buck, Ultralow 8uA Iq, PGOOD, and Dithered Clock Output	Buck	3.5 to 36	0.5, 1	0.25 to 2.4	QFN-20

* Commercial

Multi-Output DCDC Converters

Part Number	Features	Topology	Operating Input Voltage Range V	Output Current and Voltage	Converter Switching Frequency MHz	Package Type(s)
A8601	3x LDO and 2x Charge Pump outputs, Integrated Protective Circuitry	Boost	4 to 5.5	3.3 V and 20 mA, 5-13.3 V and 100 mA 3-6 V and 50 mA, -11 -- -5.4 V and 4 mA 14.5-24.6 V and 4 mA	0.35 to 2.25 MHz	eTSSOP-28
A8603	Programmable with I2C, Output Protection, 4x outputs	Boost	3 to 10	5-15 V and 100 mA, 3-7.5 V and 20 mA -12 -- -4 V and 4 mA, 10-24 V and 4 mA	0.35 to 2.25 MHz	QFN-24
A8651	Sleep mode uses < 5 μ A, integrated protective circuitry, 2x regulators	Buck	2.5 to 5.5	2x V _{adj} and 2 A	0.35 to 2.25 MHz	TSSOP-20
A4490	3x Buck Regulator, Integrated Diagnostics	Buck	4.5 to 34	3x V _{adj} and 1.5 A	550 KHz	QFN-20
A4491	3x Buck Regulator, Integrated Diagnostics	Buck	4.5 to 24	3x V _{adj} and 1.5 A	550 KHz	QFN-20
A8600	4x Output Regulator, Integrated Protection Circuitry	Buck	4.4 to 35	V _{adj} 1 A, V _{adj} 1 A, V _{adj} 2 A, V _{adj} Controller	425 KHz	QFP-48

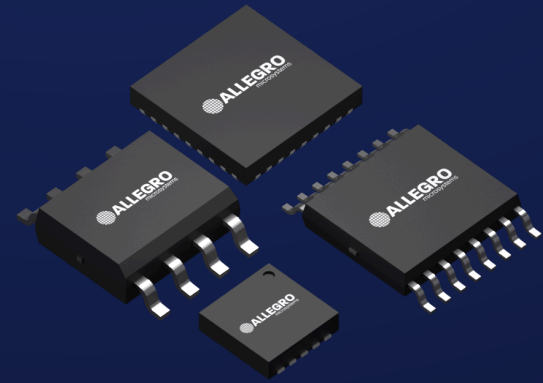
Functional Safety PMIC

Part Number	Features	Topology	Operating Input Voltage Range V	LDO Output Voltage/Current	Converter Switching Frequency MHz	Package Type(s)
A81407	ASIL-D, 4× LDO Outputs, 4x High-Side Gate Drivers, SPI	Buck, Buck-Boost	3.8 to 36	3.3 V and 375 mA, 5 V and 50 mA, 2x 5 V and 120 mA	2.2	TSSOP-38
A4411	ASIL-D, 3x LDO, 1x Low Voltage Synchronous Buck Output, SPI	Buck, Buck-Boost	3 to 36	5 V and 120 mA, 5 V and 150 mA, 5 V and 200 mA, Vadj and 800 mA	0.25 to 2.4	TSSOP-38
A4412	ASIL-D, 5x LDO, 1x Low Voltage Synchronous Buck Output, SPI	Buck, Buck-Boost	3.8 to 40	5 V and 30 mA, 5 V and 55 mA, 3.3 V and 90 mA, 5 V and 100 mA, 5 V and 200 mA, Vadj and 400 mA	2.2	TSSOP-38
ARG81402	ASIL-D, 5x LDO Outputs, SPI	Buck	6 to 36	5 V and 30 mA, 5 V and 55 mA, 5 V and 100 mA, 5 V and 100 mA, 3.3 V and 300 mA	2.2	QFN-32
ARG82801	ASIL-D, 4× LDO Outputs, 4x High-Side Gate Drivers, SPI	Buck, Buck-Boost	3.8 to 36	5 V and 100 mA, 5 V and 120 mA, 5 V and 120 mA, 5 V or 3.3 V and 350 mA	2.2	TSSOP-38
A81411	ASIL-D, 5× LDO Outputs, SPI, Always on LDO	Buck-Boost	3.2-36V	5 V or 3.3 V and 600mA, 5 V or 3.3 V and 600mA, 5 V or 3.3 V and 50mA, 5 V or 3.3 V and 150mA, 5 V or 3.3 V and 150mA	2.2	QFN-40
A81412	ASIL-D, 6× LDO Outputs, SPI, Always on LDO, Standby timer, battery switch	Buck-Boost	3.2-36V	5 V or 3.3 V and 600mA, 5 V or 3.3 V and 600mA, 5 V and 100mA, 5 V or 3.3 V and 50mA, 5 V or 3.3 V and 160mA, 5 V or 3.3 V and 160mA	2.2	QFN-48
A81850	ASIL-B, dual output, multi-topology, high current controller	Buck, Boost, or Buck-Boost	5-37V	Boost mode: 16 V to 65 V, 80 W + 80 W Buck mode: 3.3 V to 6 V, 80 W + 80 W Buck-Boost mode: 5 V to 22 V, 80 W	0.4	QFN-32

LED Drivers

High Integration and Design Flexibility

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LED Drivers for Lighting

Part Number	Features	Topology	Operating Input Voltage Range V	IOUT Per Channel mA	# of Channels	IOUT Max mA	Package Type(s)
A6211	True average output current control, low power shutdown	Buck	6 to 48	3000	1	3000	SOIC-8
A6214	True average output current control, Open and Short Protection in LED String	Buck	4.5 to 55	2000	1	2000	SOIC-10
A6216	Internal PWM dimming in stand-alone mode, Fault Flag Output	Buck	4.5 to 55	2000	1	2000	TSSOP-16
A6217	True average output current control, Internal Loop Compensation	Buck	6 to 48	3000, 1500	1	3000, 1500	DFN-10, SOIC-8
A6260	Slew rate limiting, Reverse Battery Protection	Linear	6 to 40	350	1	350	SOIC-8
A6261	Thermal Foldback and Shutdown, Disable on open LED option	Linear	6 to 50	100	4	400	MSOP-10, TSSOP-16
A6263	Thermal monitoring, LED string short and open protection	Linear	6 to 50	100	4	400	SOIC-8
A6264	Current Slew Rate Limit, Short-to-GND protection	Linear	6 to 50	100	4	400	MSOP-10, TSSOP-16

LED Drivers for Lighting (Continued)

Part Number	Features	Topology	Operating Input Voltage Range V	IOUT Per Channel mA	# of Channels	IOUT Max mA	Package Type(s)
A6270	Extensive Fault Detection and Protection, Multiple LED Dimming Options	Linear	5.3 to 40	Scalable	2	Scalable	TSSOP-16
A6271	Extensive Fault Detection and Protection, Multiple LED Dimming Options	Buck-Boost, Boost, SEPIC	4.5 to 50	Scalable	1	Scalable	TSSOP-16
A6274	Internal or External PWM dimming, Wide Fault Detection	Linear	5 to 42	60	6	360	TSSOP-20
A6284	Internal or External PWM dimming, Wide Fault Detection	Linear	5 to 42	120	6	720	TSSOP-20
A80800	Analog or PWM dimming, True average output current control	Buck	4.5 to 55	2000	1	2000	TSSOP-16
A80803	EEPROM or SPI interface, Extensive Fault Reporting, Constant Current Regulation	Multiple	4.5 to 40	Scalable	1	Scalable	QFN-32
A80804	Extensive Fault Detection and Protection, Flexible Analog dimming Options	Linear	5.3 to 40	Scalable	2	Scalable	QFN-32
ALT80802	Integrated Level Shifting, Extensive protection	Buck, Buck-Boost	3.8 to 50	2000	1	2000	DFN-10
APM80905	Highly Integrated Package, Ultra-low EMI architecture	Buck	4.5 to 36	4000	1	4000	QFN-24

LED Driver Modules

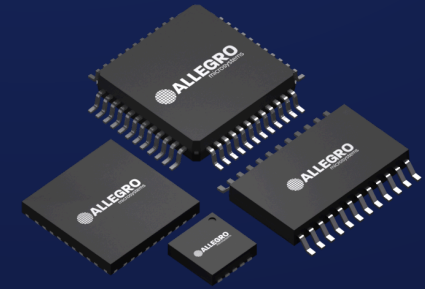
Part Number	Features	Topology	Operating Input Voltage Range V	IOUT Per Channel mA	# of Channels	IOUT Max mA	Package Type(s)
APM80900	Integrated inductor, ultra-low EMI, external PWM/EN + analog dimming, AEC-Q100	Synchronous Buck	4.5 to 36	1500	1	1500	QFN-32
APM80904	Integrated inductor, ultra-low EMI, internal programmable PWM dimming, AEC-Q100	Synchronous Buck	4.5 to 36	1500	1	1500	QFN-32

LED Drivers for Backlighting

Part Number	Features	Topology	Operating Input Voltage Range V	IOUT Per Channel mA	# of Channels	IOUT Max mA	Package Type(s)
ALT80600	Clock-Out Pin, Brightness Contrast ratio of up to 150,000:1	Boost	4.5 to 40	120	4	480	QFN-24
A80603	Clock-Out Pin, Brightness Contrast ratio of up to 150,000:1, ASIL B certified,	Boost	4.5 to 40	120	4	480	QFN-24
A80601	Clock-Out Pin, Brightness Contrast ratio of up to 150,000:1, ASIL B certified	Boost	4.5 to 40	210	4	840	QFN-24
A80602	Clock-Out Pin, Brightness Contrast ratio of up to 150,000:1, ASIL B certified	Boost	4.5 to 40	140	6	840	QFN-24
A80606	Clock-Out Pin, Brightness Contrast ratio of up to 150,000:1, ASIL B certified	Boost	4.5 to 40	180	6	1080	QFN-48

Motor Drivers

Robust and Reliable Performance



Images are for reference only, not to scale.



Brush DC Drivers Integrated FET < 20 V

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A3901	2.5 to 5.5	0.4	Full-Bridge x2	-20 to 85	Zero Current Drain during Sleep Mode, Thermal Shutdown and Crossover Protection	DFN-10
A3906	2.5 to 9	1.5	Full-Bridge x2	-20 to 85	Peak Current Output Flag, Undervoltage Lockout	QFN-20
A3908	3 to 5.5	0.5	Full-Bridge x1	-40 to 85	500 nA Sleep Mode Current, Thermal Shutdown and Crossover Protection	DFN-8
A3909	4 to 18	1	Full-Bridge x2	-40 to 105	Overcurrent Protection, Zero Current Drain during Sleep Mode, Parallel Operation Option For DC Motors	MSOP-10, SSOP-10
A3910	2.5 to 5.5	0.5	Half-Bridge x2	-40 to 85	Zero Drain During Sleep Mode, Thermal Shutdown and Crossover Protection	DFN-8
A3916	2.7 to 15	1	Full-Bridge x2	-40 to 105	Integrated Charge Pump Regulator, 0.5 µA Sleep Mode Current, Thermal Shutdown and Crossover Protection	QFN-16, QFN-20
A3918	2.5 to 9	1.5	Full-Bridge x1	-20 to 85	500 nA Max Sleep Mode Current, Peak Current Output Flag, Thermal Shutdown and Crossover Protection	QFN-16

Brush DC Drivers Integrated FET 20 to 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A4986	8 to 35	2	Full-Bridge x2	-20 to 85	10 µA Max Sleep Mode Current, PWM Current Regulator, 2x 2-bit nonlinear DACs	QFN-24, TSSOP-24
A4987	8 to 35	1	Full-Bridge x2	-20 to 85	10 µA Max Sleep Mode Current, PWM Current Regulator, 2x 2-bit nonlinear DACs	QFN-24, TSSOP-24
A4990	6 to 32	1.4	Full-Bridge x2	-40 to 150	5 µA Max Sleep Mode Current, Error Flag Output, Overvoltage and Undervoltage Lockout	TSSOP-20

Brush DC Drivers Integrated FET > 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A4950	8 to 40	3.5	Full-Bridge x1	-40 to 85, -40 to 125	Overcurrent Protection, 10 µA Max Sleep Mode Current, Undervoltage Lockout	SOIC-8
A4952	8 to 40	2	Full-Bridge x1	-40 to 85	Fault Output, Selectable Retry, Overcurrent Protection, 10 µA Max Sleep Mode Current	MSOP-10
A4953	8 to 40	2	Full-Bridge x1	-40 to 85	Overcurrent Protection, 10 µA Max Sleep Mode Current	SOIC-8
A4954	8 to 40	2	Full-Bridge x2	-40 to 85	Overcurrent Protection, 10 µA Max Sleep Mode Current	TSSOP-16
A5950	5.5 to 40	3	Full-Bridge x1	-40 to 105, -40 to 150	Motor Lead Short Protection, Fault Output, Undervoltage Lockout	QFN-16, TSSOP-16
A5988	8 to 40	1.6	Full-Bridge x4	-40 to 105	Mixed Decay Mode, 10 µA Max Sleep Mode Current, Crossover Protection	QFN-36, LQFP-48
A5989	8 to 40	3.2	Full-Bridge x3	-40 to 105	Mixed Decay Mode, 2x 2-bit nonlinear DACs, 10 µA Max Sleep Mode Current	QFN-36
A5995	8 to 40	3.2	Full-Bridge x2	-40 to 105	PWM Current Regulator, Thermal Shutdown and Crossover Protection	QFN-36

Brush DC Drivers Gate Drivers < 50 V

Part Number	Operating Voltage Range V	Number of Bridges	Temperature Range °C	Qual	Features	Package Type(s)
A4955	5.5 to 50	Full-Bridge x1	-40 to 105, -40 to 125	Industrial, Automotive	Single Supply, VDS Monitor, Fault Output, Sleep Mode, Analog Current Output, Mixed Decay, Top-off Charge Pump	QFN-20, TSSOP-20
A4956	5.5 to 50	Full-Bridge x1	-40 to 105, -40 to 125	Industrial, Automotive	Single Supply, VDS Monitor, Fault Output, Sleep Mode, Analog Current Output, Mixed Decay, Top-off Charge Pump	QFN-20, TSSOP-20
A4957	4.5 to 50	Full-Bridge x1	-20 to 85	Industrial	Integrated Diagnostics, Integrated Charge Pump Regulator, 10 µA Max Sleep Mode Current	QFN-24
A5929	5.5 to 50	Full-Bridge x1	-40 to 150	Automotive	Single Supply, VDS Monitor, Fault Output, Sleep Mode, Bootstrap Monitor	TSSOP-24
A89505	5.5 to 50	Full-Bridge x1	-40 to 125, -40 to 135,	Automotive	Undervoltage Lockout, Thermal Shutdown and Crossover Protection, VDS Protection	QFN-20, TSSOP-20
A89506	5.5 to 50	Full-Bridge x1	-40 to 125, -40 to 135,	Automotive	Undervoltage Lockout, Thermal Shutdown and Crossover Protection, VDS Protection	QFN-20, TSSOP-20

Brush DC Drivers Gate Drivers > 50 V

Part Number	Operating Voltage Range V	Number of Bridges	Temperature Range °C	Qual	Features	Package Type(s)
A89500	8 to 100	Half-Bridge x1	-40 to 105, -40 to 150	Industrial, Automotive	Cross-conduction Protection, 20 µA Max Sleep Mode Current, Undervoltage Lockout	DFN-10
A89503	5.5 to 80	Half-Bridge x1	-40 to 150	Automotive	1x Current Sense Amp, SPI Interface, Integrated Charge Pump Regulator, Independent Drain Pin	TSSOP-24
AMT49502	5.5 to 80	Half-Bridge x1	-40 to 150	Automotive	1x Current Sense Amp, SPI Interface, Integrated Charge Pump Regulator	TSSOP-24

Brush DC Drivers Safety Drivers

Part Number	Operating Voltage Range V	Number of Bridges	Temperature Range °C	Safety Rating	Features	Package Type(s)
A3922	5.5 to 50	Full-Bridge x1	-40 to 150	ASIL D	SPI-compatible Interface, 1x Current Sense Amp, Integrated Charge Pump Regulator	TSSOP-28
A3924	5.5 to 50	Full-Bridge x1	-40 to 150	ASIL D	SPI-compatible Interface, 2x Current Sense Amp, Integrated Charge Pump Regulator	TSSOP-38, QFN-40
A4926	5.5 to 50	Half-Bridge x1	-40 to 150	ASIL-ready	SPI-compatible Interface, Cross-conduction Protection, Integrated Charge Pump Regulator	TSSOP-20
A4928	5.5 to 50	Half-Bridge x1	-40 to 150	ASIL-ready	SPI-compatible Interface, Cross-conduction Protection, Integrated Charge Pump Regulator	TSSOP-24

Brushless DC Drivers Gate Drivers

Part Number	Operating Voltage Range V	Interface Type	Number of Bridges	Qual	Features	Package Type(s)
A4910	5 to 50	SPI, Direct	Half-Bridge x3	Automotive	3x Current Sense Amps, VDS Monitor, Programmable Fault Output, 10 uA Sleep Mode Current, Advanced Diagnostics	LQFP-48
A4919	5.5 to 50	SPI, Direct	Half-Bridge x3	Consumer, Industrial	Integrated LDO Regulator, 15 µA Sleep Mode Current, Charge Pump Regulator	TSSOP-28, QFN-28
A4931	8 to 38	PH/EN	Half-Bridge x3	Consumer, Industrial, Automotive	1x Current Sense Amp, Lock and Overvoltage Protection	QFN-28
A3938	18 to 50	PH/EN	Half-Bridge x3	Consumer, Industrial	1x Current Sense Amp, Bootstrapped High-side Driver	TSSOP-38
A4933	5.5 to 50	PWM Speed, Direct	Half-bridge x3	Automotive	1x Current Sense Amp, 10 µA Sleep Mode Current, Charge Pump Regulator	LQFP-48
A4935	5.5 to 50	PWM Speed, Direct	Half-Bridge x3	Automotive	1x Current Sense Amp, 10 µA Sleep Mode Current, Charge Pump Regulator	LQFP-48
A4939	5.5 to 50	Direct	Half-Bridge x3	Automotive	VDS Monitor, 15 µA Sleep Mode Current, Integrated LDO Regulator	TSSOP-28, QFN-28

Brushless DC Drivers Safety Drivers

Part Number	Operating Voltage Range V	Interface Type	Number of Bridges	Safety	Features	Package Type(s)
A4911	5.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amp, 10 μ A Sleep Mode Current, Extensive Diagnostics, Programmable Gain and Offset, Phase Monitors	QFN-48, LQFP-48
A4916	5.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	10 μ A Sleep Mode Current, Extensive Diagnostics, Programmable Gain and Offset, Phase Monitors	QFN-48, LQFP-48
A4918	4.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amp, 10 μ A Sleep Mode Current, Extensive Diagnostics, Programmable Gain and Offset, Phase Monitors	QFN-48, LQFP-48
AMT49100	10 to 80	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amps, Integrated Buck Converter, Extensive Diagnostics	LQFP-48
AMT49101	10 to 80	SPI, Direct	Half-Bridge x3	ASIL D	2x Current Sense Amps, Integrated Buck Converter, Integrated LDO Controller	LQFP-48
AMT49105	5.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	1x Current Sense Amp, LIN/PWM Physical Interface, Integrated BEMF Comparators	QFN-48
AMT49106	4.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amps, No Duty Restriction up to 100% duty cycle	QFN-48, LQFP-48
AMT49107	4.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Phase Comparators, Dual System Enable Inputs, Extensive Diagnostics	QFN-48
A89199	4.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amp, 10 μ A Sleep Mode Current, Extensive Diagnostics, Programmable Gain and Offset, Phase Monitors	QFN-48, LQFP-48
AMD89111	5.5 to 50	SPI, Direct	Half-Bridge x3	ASIL D	3x Current Sense Amp, 10 μ A Sleep Mode Current, Extensive Diagnostics, Programmable Gain and Offset, Phase Monitors	LQFP-48

Brushless DC Drivers Integrated Control Gate Driver – Trapezoidal

Part Number	Interface Type	Position Sensing	Qual	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
A3930	PH/EN	Sensored	Automotive	5.5 to 50	Half-Bridge x3	Extensive Diagnostics Output, 10 μ A sleep mode current, Charge Pump Regulator, Hall short detection	QFN-48
A3931	PH/EN	Sensored	Automotive	5.5 to 50	Half-Bridge x3	Extensive Diagnostics Output, 10 μ A sleep mode current, Charge Pump Regulator, Pre-positioning	QFN-48
A4915	Hall	Sensored	Consumer, Industrial	5 to 50	Half-Bridge x3	Fault Output, 1 μ A Sleep Mode Current, Adjustable Dead Time Protection	TSSOP-28, QFN-28
A4931	Hall	Sensored	Industrial, Automotive	8 to 38	Half-Bridge x3	1x Current Sense Amp, Lock and Overvoltage Protection	QFN-28
A4960	SPI	Sensorless	Industrial, Automotive	7 to 50	Half-Bridge x3	Integrated Charge Pump Regulator, Extensive Diagnostics	LQFP-32
A4962	SPI, PWM Speed	Sensorless	Automotive	4.2 to 50	Half-Bridge x3	1x Current Sense Amp, Current Control Mode, VDS Monitor, Fault Output, Advanced Diagnostics	TSSOP-20
A4963	SPI, PWM Speed	Sensorless	Industrial	4.2 to 50	Half-Bridge x3	1x Current Sense Amp, Current Control Mode, VDS Monitor, Fault Output, Advanced Diagnostics	TSSOP-20
A4964	SPI, PWM Speed	Sensorless	Automotive	5.5 to 50	Half-Bridge x3	LIN/PWM Physical Interface, Ignition Interface, Integrated Diagnostics, 1x Current Sense Amp	QFN-36, QFP-32
AMT49413	PWM Speed	Sensored	Automotive, Industrial	5.5 to 50	Half-Bridge x3	1x Current Sense Amp, 10 μ A Sleep Mode Current, 2x Fault Outputs	QFN-48

Brushless DC Drivers Integrated Control Gate Driver – Sinusoidal

Part Number	Interface Type	Position Sensing	Qual	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
A5932	PWM Speed, I2C	Sensorless	Automotive, Industrial	5.5 to 50	Half-Bridge x3	OCP Protection, Advanced Diagnostics, EEPROM Programmable	TSSOP-24, QFN-24
A89331	PWM Speed, I2C	Sensorless	Industrial	5.5 to 36	Half-Bridge x3	Power Loss Brake, EEPROM Programmable, Trapezoidal Drive Option, Configurable FG Output	TSSOP-20, QFN-28
A89332	PWM Speed, I2C	Sensorless	Industrial	5.5 to 36	Half-Bridge x3	Power Loss Brake, AC Loss IBB Control, EEPROM Programmable, Trapezoidal Drive Option, Configurable FG Output,	QFN-26

Brushless DC Drivers Integrated Control Gate Driver – Single Phase

Part Number	Interface Type	Position Sensing	Qual	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
A4930	PWM	Hall Element	Automotive, Industrial	8 to 36	Half-Bridge x2	PWM current limiting, dead time protection, FG output, RD output, Lock detect protection, soft start	QFN-28

Brushless DC Drivers Integrated Control Gate Driver – Field-Oriented Control

Part Number	Interface Type	Position Sensing	Qual	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
AMT49406	PWM Speed, I2C, Analog	Sensorless	Industrial	5.5 to 50	Half-Bridge x3	OC Protection, Fault Output, Optimized start-up, Lock Detection	TSSOP-24, QFN-24
A89301	PWM Speed, I2C, Analog	Sensorless	Industrial	5.5 to 50	Half-Bridge x3	FOC, Single Supply, OCP Protection, Fault Output, EEPROM Programmable, Sleep Mode, Closed Loop Speed Control, FG Speed Output	QFN-24
A89306	PWM Speed, I2C, Analog	Sensorless	Industrial	5.5 to 50	Half-Bridge x3	FOC, Single Supply, OCP Protection, Fault Output, EEPROM Programmable, Sleep Mode, Closed Loop Speed Control, FG Speed Output	QFN-28
A89307	PWM, Speed, I2C, Analog	Sensorless	Automotive	5.5 to 45	Half-Bridge x3	Constant Speed, Constant Torque, Constant Power, Low Speed Operation, Non-Reverse Fast Startup, Soft-on Soft-off, Closed Loop Speed Control, FG Speed Output, Fault Output, Lock Detection	QFN-28
A89333	PWM Speed, Clock Mode, Analog	Sensorless	Industrial	7 to 90	Half-Bridge x3	Single Shunt FOC, Field Weakening, Power Loss Brake, Fault Mode Brake, Constant Power, Closed Loop Speed Control, Universal Speed Curve, Windmill Startup, Overcurrent Limit, OCP Protection, Overvoltage Protection	QFN-28
A89337	PWM Speed, Clock Mode, Analog	Sensorless	Industrial	8 to 26	Half-Bridge x3	Single Shunt FOC, Field Weakening, Power Loss Brake, Fault Mode Brake, Constant Power, Closed Loop Speed Control, Universal Speed Curve, Windmill Startup, Overcurrent Limit, OCP Protection, Overvoltage Protection	QFN-28

Brushless DC Drivers Integrated Control & MOSFET – Trapezoidal

Part Number	Interface Type	Position Sensing	Peak Output A	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
A89303	PWM Speed, I2C	Sensorless	3	4.4 to 40	Half-Bridge x3	50-ms Startup, EEPROM Programmable, FG Speed Output, Overcurrent and Overvoltage Protection	QFN-32, TSSOP-20

Brushless DC Drivers Integrated Control & MOSFET – Sinusoidal

Part Number	Interface Type	Commutation Type	Peak Output A	Operating Voltage Range V	Qual	Features	Package Type(s)
A4942	Analog	Sensorless	1.6	5 to 16	Industrial	Overcurrent Protection, Integrated Current Limiting, Lock Detection	QFN-20
A4944	PWM Speed, Analog	Sensored	1.2	4 to 17	Industrial	180° Sinusoidal Drive, FG Speed Output, Lock Detection, Overcurrent Limit, Short Circuit Protection	TSSOP-16, SOIC-16
A4945	Analog	Sensorless	1.8	4 to 18	Industrial	FG Speed Output, Overcurrent and Short-Circuit Protection	SOIC-8
A4949	PWM Speed	Sensorless	1.8	4 to 18	Industrial	FG Speed Output, Overcurrent and Short-Circuit Protection	SOIC-8
A4946	Analog, PWM Speed	Sensorless	1.35	4.8 to 32	Industrial	VDS Monitor, Lock Detection, Overcurrent and Short-Circuit Protection	TSSOP-16
A4947	Analog, PWM Speed	Sensored	3.6	6 to 17	Industrial	VDS Monitor, Soft-Start, Lock Detection, Overcurrent and Short-Circuit Protection	TSSOP-16
A5931	PWM Speed, I2C	Sensorless	4.2	5 to 16	Industrial, Automotive	Fault Output, 210 mΩ Lowest Total RDS(ON), Lock Detection, Overcurrent Limit	TSSOP-16 QFN-24
A5940	PWM Speed	Sensorless	1.7	4 to 18	Industrial	FG Speed Output, Lock Detection, Overcurrent Limit	DFN-10, SOIC-10
A5941	Analog, PWM Speed, SPI	Sensorless	1.4	4 to 18	Industrial	EEPROM Programmable, Lock Detection, Overcurrent Limit	SOIC-10
A5947G	PWM Speed, I2C, Analog	Sinusoidal	3.6	4 to 40	Industrial	EEPROM Programmable, Lock Detection, Overcurrent Limit, Integrated Linear Regulator, 40 µA Maximum Standby Current	QFN-28, TSSOP-20
A5947-B	PWM Speed, I2C, Analog	Sinusoidal	3.6	4 to 40	Automotive	EEPROM Programmable, Lock Detection, Overcurrent Limit, Integrated Linear Regulator, 40 µA Maximum Standby Current	QFN-28, TSSOP-20
A89304	PWM Speed, I2C	Sinusoidal	3	4 to 40	Industrial	EEPROM Programmable, Lock Detection, Overcurrent Limit, FG Speed Output, Overcurrent and Overvoltage Protection	QFN-28
A89347	PWM Speed, I2C, Analog	Sinusoidal	3.6	4 to 40	Automotive	EEPROM Programmable, Lock Detection, Overcurrent Limit, Integrated Linear Regulator	TSSOP-20

Brushless DC Drivers Integrated Control & MOSFET – Field-Oriented Control

Part Number	Interface Type	Position Sensing	Peak Output A	Operating Voltage Range V	Number of Bridges	Features	Package Type(s)
AMT49400	PWM Speed, I2C	Sensorless	2	4 to 18	Half-Bridge x3	10 µA Max Standby Current, Lock Detection, Fault Output	SOIC-10

Brushless DC Drivers Programmable SoC

Part Number	Operating Voltage Range V	Memory (Flash / DRAM)	Speed MHz	I/O Voltage	Communication	Peripherals	Qual	Package
A89211	5.5 to 60	252 kB / 32 kB	40 MHz	5V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Industrial	QFN-48
A89211-A	5.5 to 60	128 kB / 32 kB	40 MHz	3.3V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Industrial	QFN-48
A89212	5.5 to 90	252 kB / 32 kB	40 MHz	5V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Industrial	QFN-48
A89212-A	5.5 to 90	128 kB / 32 kB	40 MHz	3.3V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Industrial	QFN-48
A89224-A	5.5 to 90	252 kB / 32 kB	40 MHz	5V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Automotive	QFN-48
A89224-B	5.5 to 90	128 kB / 32 kB	40 MHz	5V	LIN, PWM	3-phase BLDC driver, 12-bit ADC 16 ch, 2x SCI, 8x Timer, GPIO, BEMF, DAU, CAU, 12-bit PWM @ 20kHz	Automotive	QFN-48

Stepper Motor Drivers Parallel Interface < 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A3901	2.5 to 5.5	0.4	Full-Bridge x2	-20 to 85	Zero Current Drain during Sleep Mode, Thermal Shutdown and Crossover Protection, Full or Half-Step Mode	DFN-10
A3906	2.5 to 9	1.5	Full-Bridge x2	-20 to 85	Peak Current Output Flag, Undervoltage Lockout, Full or Half-Step Mode	QFN-20
A4987	8 to 35	1	Full-Bridge x2	-20 to 85	10 µA Max Sleep Mode Current, PWM Current Regulator, 2x 2-bit nonlinear DACs, Full, Half, or Quarter Step Modes	QFN-24, TSSOP-24
A4990	6 to 32	1.4	Full-Bridge x2	-40 to 150	5 µA Max Sleep Mode Current, Error Flag Output, Overvoltage and Undervoltage Lockout, Full-step Mode	TSSOP-20

Stepper Motor Drivers Parallel Interface > 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A5988	8 to 40	1.6	Full-Bridge x4	-40 to 105	Mixed Decay Mode, 10 µA Max Sleep Mode Current, Crossover Protection, Full, Half, or Quarter-Step Mode	QFN-36, LQFP-48
A5989	8 to 40	1.6 (Stepper), 3.2A (DC)	Full-Bridge x3	-40 to 105	Mixed Decay Mode, 2x 2-bit nonlinear DACs, 10 µA Max Sleep Mode Current, Full, Half, or Quarter-Step Mode	QFN-36

Stepper Motor Drivers Serial Interface

Part Number	Operating Voltage Range V	Peak Output Current A	Number of Bridges	Temperature Range °C	Qual	Features	Package Type(s)
A3981	7 to 32	1.4	Full-Bridge x2	-40 to 150	Automotive	SPI-Compatible, Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection	TSSOP-28
A4980	3.3 to 32	1.4	Full-Bridge x2	-40 to 150	Automotive	SPI-Compatible, Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection	TSSOP-28
A4993	3.5 to 32	1.4	Full-Bridge x2	-40 to 150	Automotive	SPI-Compatible, Full, Half, Quarter, or Sixteenth-Step Mode, Adaptive Mixed Current Decay Mode	TSSOP-20

Stepper Motor Drivers Micro Stepping Interface < 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Qual	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A3977	8 to 35	2.5	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Eighth-Step Mode, Automatic Current Decay Mode Detection/selection, Undervoltage Lockout	TSSOP-28
A4992	3.8 to 32	1.4	Automotive	Full-Bridge x2	-40 to 150	Undervoltage Lockout, Full, Half, Quarter, Eighth, or Sixteenth-Step Mode, Adaptive Mixed Current Decay Mode	TSSOP-20
A4982	8 to 35	2	Industrial	Full-Bridge x2	-20 to 85	No Smoke No Fire Compliance, Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection	QFN-32, TSSOP-24
A4983	8 to 35	2.5	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection, Thermal Shutdown and Crossover Protection	QFN-28
A4984	8 to 35	2	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Eighth-Step Mode, Automatic Current Decay Mode Detection/selection, 10 µA Max Sleep Mode Current	QFN-24, QFN-32, TSSOP-24
A4985	8 to 35	1	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Eighth-Step Mode, Automatic Current Decay Mode Detection/selection, 10 µA Max Sleep Mode Current	QFN-24, QFN-32, TSSOP-24
A4988	8 to 35	2	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, Eighth, or Sixteenth-Step Mode, Adaptive Mixed Current Decay Mode, Undervoltage Lockout	QFN-28

Stepper Motor Drivers Micro Stepping Interface > 35 V

Part Number	Operating Voltage Range V	Peak Output Current A	Qual	Number of Bridges	Temperature Range °C	Features	Package Type(s)
A3987	8 to 50	1.5	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection, Undervoltage Lockout	TSSOP-24
A4989	12 to 50	1.2	Industrial	Full-Bridge x2	-20 to 85	Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection, 2x Sinusoidal DACs	TSSOP-38
A5976	8 to 40	2.8	Industrial	Full-Bridge x2	-40 to 105	Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection, Fault Output	TSSOP-28
A5977	8 to 40	2.8	Industrial	Full-Bridge x2	-40 to 105	Full, Half, Quarter, or Eighth-Step Mode, Automatic Current Decay Mode Detection/selection, Fault Output	TSSOP-28
A5979	8 to 40	2.8	Industrial	Full-Bridge x2	-40 to 105	Full, Half, Quarter, or Sixteenth-Step Mode, Automatic Current Decay Mode Detection/selection, Overtemperature Protection	TSSOP-28
A5985	8 to 40	2	Industrial	Full-Bridge x2	-40 to 105	Full, Half, Quarter, Eighth, Sixteenth, or Thirty Second Step Mode, Percent Fast Decay Mode, Full Torque Step Modes	QFN-28
A5984	8 to 40	2	Industrial	Full-Bridge x2	-40 to 105	Full, Half, Quarter, Eighth, Sixteenth, or Thirty Second Step Mode, Percent Fast Decay Mode, Fault Output	QFN-24, QFN-32, TSSOP-24
AMT49700	5.5 to 32	1.6	Automotive	Full-Bridge x2	-40 to 150	Full, Half, Quarter, Eighth, or Sixteenth-Step Mode, Mixed Current Decay Mode, SPI-Compatible	QFN-32

Half-Bridge Motor Drivers < 50 V

Part Number	Operating Voltage Range V	Temperature Range °C	Number of Bridges	Qual	Features	Package Type(s)
A4926	5.5 to 50	-40 to 150	Half-Bridge x1	Automotive Safety	SPI-compatible Interface, Cross-conduction Protection, Integrated Charge Pump Regulator	TSSOP-20
A4928	5.5 to 50	-40 to 150	Half-Bridge x1	Automotive Safety	SPI-compatible Interface, Cross-conduction Protection, Integrated Charge Pump Regulator	TSSOP-24
A3946	7 to 60	-40 to 135	Half-Bridge x1	Automotive Safety	Undervoltage Protection and Overtemperature Protection	TSSOP-16

Half-Bridge Motor Drivers > 50 V

Part Number	Operating Voltage Range V	Temperature Range °C	Number of Bridges	Qual	Features	Package Type(s)
A89500	8 to 100	-40 to 105, -40 to 150	Half-Bridge x1	Industrial, Automotive	Cross-conduction Protection, 20 µA Max Sleep Mode Current, Undervoltage Lockout	DFN-10
A89503	5.5 to 80	-40 to 150	Half-Bridge x1	Automotive Safety	1x Current Sense Amp, SPI Interface, Integrated Charge Pump Regulator, Independent Drain Pin	TSSOP-24
AMT49502	5.5 to 80	-40 to 150	Half-Bridge x1	Automotive Safety	1x Current Sense Amp, SPI Interface, Integrated Charge Pump Regulator	TSSOP-24

Solenoid & Multichannel Drivers High-Side Drivers

Part Number	Operating Voltage Range V	Temperature Range °C	Number of Bridges	Qual	Features	Package Type(s)
A3942	4.5 to 60	-40 to 150	4x High Side	Automotive	SPI-compatible, Extensive Protective Circuitry, 15 µA Max Sleep Mode Current	TSSOP-38

Solenoid & Multichannel Drivers Low-Side Drivers

Part Number	Operating Voltage Range V	Temperature Range °C	Number of Bridges	Qual	Features	Package Type(s)
A3944	6 to 40	-25 to 150	6x Low Side	Automotive	SPI-compatible, Extensive Protective Circuitry, 10 µA Max Sleep Mode Current	TSSOP-38

Disconnect Drivers

Part Number	Operating Voltage Range V	Temperature Range °C	Number of Bridges	Safety Rating	Features	Package Type(s)
A89103	4.5 to 85	-40 to 150	Half-Bridge x3	ASIL D	Integrated Charge Pump Regulator, SPI-compatible, Undervoltage Lockout	TSSOP-38
A6861	4.5 to 50	-40 to 150	Half-Bridge x3	ASIL D	Integrated Charge Pump Controller, 100 kΩ Gate-Source Resistors, Undervoltage Monitor, Independent Enable Inputs	TSSOP-16
A6862	4.5 to 50	-40 to 150	Half-Bridge x3	ASIL D	Integrated Charge Pump Controller, 100 kΩ Gate-Source Resistors, Undervoltage Monitor, Global Enable Input, Ignition / Power OK Input	TSSOP-16

High Voltage Isolated Gate Drivers

Simplified Design and Reduced Component Count

Images are for reference only, not to scale.



SiC & GaN Drivers with Power-Thru Technology

Part Number	Description	Integrated Transformer	# of Channels	Switch	Drive Power	Polarity	Working Voltage V	Package, Footprint	Automotive Qualified
AHV85110	Self-Powered Single-Channel Isolated GaNFET Gate Driver with Power-Thru Integrated Isolated Bias Supply	Yes	Single	GaN	18nC x 8V	Unipolar	1000	NH-12, 10x7.66mm	Yes
AHV85111	Self-Powered Single-Channel Isolated GaNFET Gate Driver with Regulated Bipolar Output Drive	Yes	Single	GaN	18nC x 8V	Bipolar	1000	NH-12, 10x7.66mm	Yes
AHV85000	Dual chipset with AHV85040, Primary side of GaN FET Isolated Gate Driver Chipset with Power-Thru Integrated Isolated Bias Supply	No	Single	GaN	18nC x 8V	Unipolar	1000	DFN-10, 3x3mm	No
AHV85040	Dual chipset with AHV85000, Secondary side of GaN FET Isolated Gate Driver Chipset with Power-Thru Integrated Isolated Bias Supply	No	Single	GaN	18nC x 8V	Unipolar	1000	DFN-10, 3x3mm	No
AHV85311	Self-Powered Single-Channel Isolated SiCFET Gate Driver with Regulated Bipolar Output Drive	Yes	Single	SiC	130nC x 25V	Bipolar	1500	NL-24, 16.8x10.3mm NK-26, 13.2x11.5mm	Yes
AHV85003	Dual chipset with AHV85043, Primary side of SiC FET Isolated Gate Driver Chipset with Power-Thru Integrated Isolated Bias Supply	No	Single	SiC	130nC x 25V	Bipolar	1500	QFN-20, 4x4mm	Yes
AHV85043	Dual chipset with AHV85003, Secondary side of SiC FET Isolated Gate Driver Chipset with Power-Thru Integrated Isolated Bias Supply	No	Single	SiC	130nC x 25V	Bipolar	1500	QFN-20, 4x4mm	Yes

A initial character style · general product lines

AAA	NNNN	A	A	AA	AA	[–]AA	–A
Allegro identifier	Device type	Industrial option	Operating temperature	Package designation	Packing leadform	Special configuration	Leadframe plating

Allegro Identifier	[A, and optional 1 to 2 letters]
Device Type	[3 to 4 numbers] functional type
Industrial Option	[optional 1 letter] blank indicates default configuration; N: industrial
Operating Temperature Range	[1 letter] ambient temperature range
Package Designation	[1 or 2 letters] body configuration
Instructions (Finishing)	Leadform/packing option, etc. Blank indicates default configuration
Leadframe Plating	[– and 1 letter] nonlead (Pb-free) option

A initial character style · for all part numbers with 5-digit device type

AAA	NNNNN	A	A	AAA	AA	[-AA]
Allegro identifier	Device type	Industrial option	Operating temperature	Package designation	Packing leadform	Special configuration

Allegro Identifier	[A, and optional 1 to 2 letters]
Device Type	[5 numbers] functional type
Industrial Option	[optional 1 letter] blank indicates default configuration; N: industrial
Operating Temperature Range	[1 letter] ambient temperature range
Package Designation	[3 letters] body configuration
Instructions (Finishing)	Leadform/packing option, etc. Blank indicates default configuration

Sensed current range style · current sensor IC product lines

ACS	NNN	A	AA	AA	[–]AA	[–NNNAA]	–AAA	[–A]
Allegro identifier	Device type	Operating temperature	Package designation	Packing leadform	Special configuration	Current sensing range	Leadform option	Leadframe plating

Allegro Identifier	ACS
Device Type	[3 numbers] functional type
Operating Temperature Range	[1 letter] ambient temperature range
Package Designation	[1 or 2 letters] body configuration
Instructions (Finishing)	Leadform/packing option, etc. Blank indicates default configuration
Current Sensing Range	[3 numbers] optimal sensing amperage range [1 letter] measurable sensing range multiplier. A: 1× optimal, B: 2× optimal, C: 3× optimal [1 letter] current direction measurable. B: bidirectional, U: unidirectional
Leadform (75x series)	[3 letters] PFF: formed signal leads, formed current terminals. PSF: formed signal leads, straight current terminals. PSS: straight signal leads, straight current terminals
Leadframe Plating	[– and 1 letter] nonlead (Pb-free) option

U initial character style · general product lines

UD	A	NNNN	AA	AA	[–]AA	–A
Allegro identifier	Operating temperature	Device type	Package designation	Packing leadform	Special configuration	Leadframe plating

Package Designation	[1 or 2 letters] body configuration
Instructions (Finishing)	Leadform/packing option, etc. Blank indicates default configuration
Leadframe Plating	[– and 1 letter] nonlead (Pb-free) option

CT initial character style · general product lines

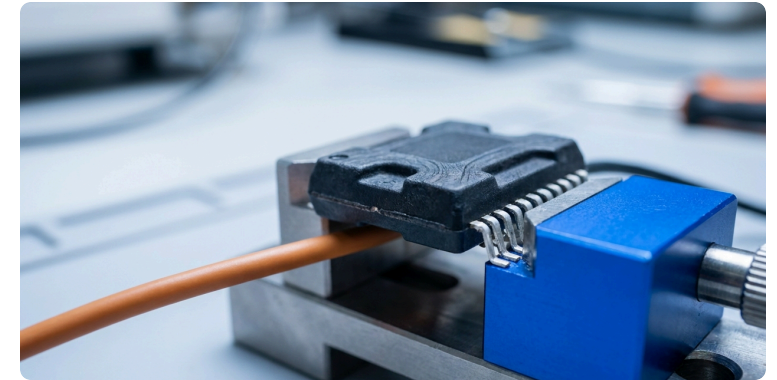
CT	NNNN	AAA[–AA]
Allegro identifier	Device type	Options

Allegro Identifier	[CT]
Device Type	[3 to 4 numbers] functional type
Options	Package, Temperature, Current Range, etc.

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