Allegro Part Numbering Guide

This document provides a guide to the part numbering codes used by Allegro™ MicroSystems for general sales customer orders. Current individual datasheets for specific parts should be consulted before ordering. This guide should be used for reference only and is not intended to be a complete source and may be superseded by subsequent procedures. Individual part numbers may deviate from the specifications in this document. All possible combinations of device type, operating temperature range, and package style are not necessarily available.

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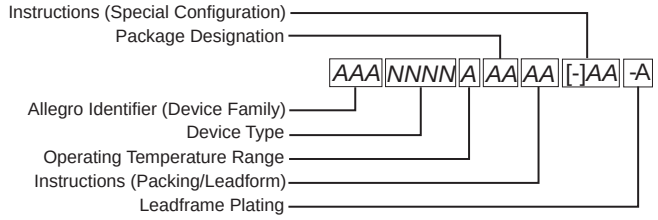
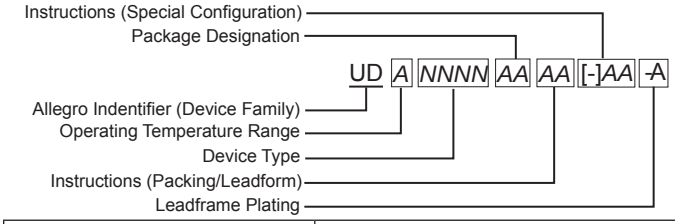
Complete Part Numbers

Complete Part Number Format ("A" initial character style, general product lines)



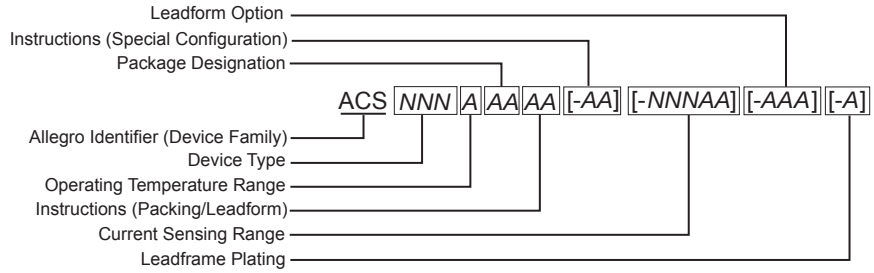
Allegro Identifier	[*A*, and optional 1 to 2 letters]
Device Type	[3 to 4 numbers] functional type
Operating Temperature Range	[1 letter] ambient temperature range
Package Designation	[1 or 2 letters] body configuration
Instructions (Finishing)	Leadform/packing option, etc. Blank indicates default configuration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

Complete Part Number Format ("U" initial character style, general product lines)



Allegro Identifier	UD
Operating Temperature Range	[1 letter] ambient temperature range
Device Type	[3 to 4 numbers] functional type
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

Complete Part Number Format (Sensed current range style, current sensor IC product lines)



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

Operating Temperature Ranges

Complete Part Number Format
("A" initial character style, general product lines)

Part Number Token	Descriptor	Operating Ambient Temperature Range
A	Commercial A	–10°C to 60°C
B	Extended Commercial B	–25°C to 75°C
C	Commercial C	0°C to 70°C
D	Commercial D	0°C to 50°C
E	Extended Automotive/Industrial E	–40°C to 85°C
F	Extended Automotive/Industrial F	–40°C to 95°C
G	Extended Industrial	–40°C to 105°C
K	Extended Industrial	–40°C to 125°C –40°C to 135°C –40°C to 150°C, when T_J (max) ≤ 150°C
L	Automotive	–40°C to 150°C
M	Extended Commercial M	–20°C to 105°C
P	Extended Automotive/Commercial P	–40°C to 160°C
S	Standard	–20°C to 85°C
X	Custom	Refer to datasheet for custom temperature range

Complete Part Number Format
("U" initial character style, general product lines)

Part Number Token	Descriptor	Operating Ambient Temperature Range
K	Extended Automotive/Industrial	–40°C to 125°C (typical)
N	Commercial/Industrial	–20°C to 85°C (typical)
Q	Automotive/Industrial	–40°C to 85°C (typical)

Package Designators

A – Dual in-line (MS-001, MS-010, MS-011)
B – Dual in-line with heat-sink semi-tabs (MS-001, MS-010)
CA – Current sensor device
CB – Current sensor device
CG – Chip scale device
EB – Square J-leaded chip carrier with 2 heat-sink semi-tabs (MS-018)
EC – Square leadless (exposed pad) 0.40 mm contact pitch, quad very-very-thin chip carrier (MO-220)
ED – Square J-leaded chip carrier with 4 heat-sink semi-tabs (MS-018)
EE – Square leadless (exposed pad) 0.50 mm contact pitch, dual ultra-thin chip carrier (MO-229)
EF – Current-sensing, leadless 1.27 mm pitch, dual very-thin chip carrier (MO-229)
EG – Rectangular leadless (exposed pad) 0.50 mm pitch, quad very-very-thin chip carrier (MO 220)
EH – Rectangular leadless (exposed pad) 0.50 mm pitch, dual very-very-thin chip carrier (MO 229)
EJ – Square leadless (exposed pad) 0.50 mm pitch, dual very-very-thin chip carrier (MO-229)
EK – Square leadless (exposed pad) 0.95 mm pitch, dual very-very-thin chip carrier (MO-229)
EL – Square leadless (exposed pad) 0.50 mm pitch, dual ultra-thin chip carrier (MO-229)
EM – Square leadless (exposed pad) 0.65 mm contact pitch DFN/SON (MO-229)
EP – Square J-leaded chip carrier (MO-047, MS-007, MS-018)
ES – Square leadless (exposed pad) 0.50 mm contact pitch, quad very-very-thin chip carrier (MO-220)
ET – Square leadless (exposed pad) 0.50 mm contact pitch, quad very-thin chip carrier (MO-220)
EU – Square leadless (exposed pad) 0.65 mm contact pitch, quad very-very-thin chip carrier (MO-220)
EV – Square leadless (exposed pad) 0.50 mm contact pitch, quad very-thin chip carrier (MO-220)
EW – Rect. leadless (exposed pad) 0.50 mm contact pitch, dual super-thin chip carrier (MO-229)
EX – Square leadless (exposed current loop) 0.50 mm contact pitch, quad very-very-thin chip carrier (MO-220)
JP – Low-profile QFP (exposed pad) (MS-026)
JS – Thin-profile QFP (exposed pad) (MS-026)
JU – Thin-profile QFP (MS-026)
K – Mini-SIP, four leads
KA – Mini-SIP, five leads
KB – Mini-SIP, three leads
KC – Mini-SIP, three leads
KN – Mini-SIP, four leads
KT – Mini-SIP, four leads
L – Narrow-body SOIC (MS-012)
LA – Wide-body SOIC with internal sensed current path (MS-013)
LB – Wide-body SOIC with heat-sink semi-tabs (MS-013)
LC – Current Sensor, narrow-body SOIC (MS-012)
LD – TSSOP, 0.50 mm pitch (MO-153)
LE – TSSOP, 0.65 mm pitch (MO-153)
LF – QSOP 0.635 mm pitch
LG – TSSOP with heat-sink semitabs, 0.50 mm pitch
LH – Low-profile, three- or five-terminal surface mount (SOT23W)
LJ – Eight-lead narrow-body SOIC with exposed pad (MS-012)
LP – TSSOP (exposed pad), 0.65 mm pitch (MO-153)
LQ – QSOP, 0.80 mm pitch
LT – SOT, three leads (SOT89/TO-243AA)
LW – Wide-body SOIC (MS-013)
LY – Narrow-body TSSOP (exposed pad), 0.50 mm pitch
LZ – Narrow-body TSSOP, 0.50 mm pitch
M – Eight-pin mini-DIP (MS-001BA)
SA – SIP, 4 leads
SB – SIP, 4 leads
SE – SIP, 4 leads
SG – SIP, 4 leads
SH – SIP, 4 leads
SJ – SIP, 4 leads
U – mini-SIP, 2 leads
UA – Three-lead, thin mini-SIP

Instructions (Finishing)

Package/Leadform

LC – Spread leadform
LF – Lead form per customer drawing
LT – Tape and reel
LX – Tape and reel
PFF – Plated, formed power leads, formed signal leads
PSF – Plated, straight power leads, formed signal leads
PSS – Plated, straight power leads, straight signal leads
TA – Tape and reel
TI – Tape and reel, straight leadform
TK – Tape and reel
TL – Horizontal-mount leadform, bulk
TN – Tape and reel: SE, SG, SH, and SJ packages
TR – Tape and reel
TS – Horizontal-mount leadform, tape and reel

Special Configuration

-I1, -I2, -I3 – Two-wire current level
-LN – Low on tooth
-LT – Low on tooth/TPOS
-R – Internal pull-up resistor

Leadframe Plating

-T – Matte tin
-P – Nickel Palladium-Gold

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