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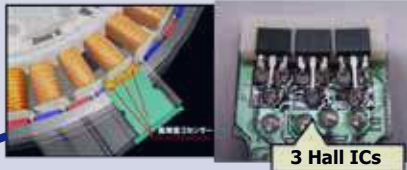


## 2011 Sensor Product Guide

### Input Dial/Selector



Drum motor sensor  
Clothing detection



3 Hall ICs

### Inverter Circuits

Outdoor  
Fan motor



Dryer fan/Heat pump motor

Weight sensor

Lint filter sensor



### Air Cleaner & Humidifier

Fan motor

Filter sensor

Water pump sensor  
flow sensor

Water Tank  
weight sensor/SW



Touch sensor



Fan motor

Filter sensor

Door switch

Drawer switch

Compressor  
pump motor



### Security



Angle sensor



# Sensor Solutions

Hall Elements, Unipolar, Bipolar, & Omnipolar Hall Effect Switches, Bipolar Hall Effect Latches, Linear Hall Effect ICs, Current Sensor Modules, Angle Position Sensor ICs

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# Hall Sensor Types

## AKM Hall Elements

A Hall Element is a magneto-electric transducer which utilizes the Hall Effect to measure or sense a magnetic field perpendicular to the Element. AKM Hall Elements typically have 4 pins, 2 input pins and 2 output pins, and can be driven by either a voltage or a current source. The output is a Hall voltage that is proportional to the magnetic field. The output from a Hall Element is analog and typically requires additional amplification. AKM uses four different semiconductor materials in its Hall Elements. These different materials represent AKM's 4 different series of part numbers. The different materials provide different performance characteristics (magnetic sensitivity represented by electron mobility and band gap, operating voltage, temperature sensitivity, etc.) allowing the design engineer to choose the best solution for the particular application.

| Applications  | AKM Series | Hall Element Material | Magnetic Sensitivity |  | Temperature Coefficiency              |                  |
|---|------------|-----------------------|----------------------|--|---------------------------------------|------------------|
|   |            |                       | Relative Ranking     | Electron Mobility of Semiconductor (cm <sup>2</sup> /Vs) | Temperature Dependence of Sensitivity | Band Gap Eg (eV) |
| ---   | ---        | Si                    | Low                  | 1,450  | Low                                   | 1.12             |
| Weight sensor, Inverter, position sensor, current sensor (low cost) | HGXXX      | GaAs                  | Medium               | 8,000  | Low                                   | 1.43             |
| Inverter, Smart Meter, Power Meter, current sensor, etc.            | HZXXX      | InAs                  | High                 | 30,000   | Medium                                | 0.33             |
| Position detection  | HQXXX      | InAs (Quantum well)   | High                 | 30,000   | Medium                                | 0.33             |
| Brushless DC motor, current sensor                                  | HWXXX      | InSb                  | Ultra High           | 75,000   | High                                  | 0.16             |

## AKM Current Sensor Modules

The Current Sensor Modules use a Hybrid Hall IC, which includes: a high sensitivity Hall element, an amplifier, a buffer, compensation circuitry, and a drive circuit for the Hall sensor. CQ206x and CQ209x Series also include an EEPROM unit providing factory-adjusted sensitivity and offset voltage for high accuracy. The compensation circuitry provides flat temperature dependence. The current conductor is electrically isolated from the sensor IC. The output is linear and ratiometric to the supply voltage.

| Applications  | AKM Series | Hall Element Material | Operating Voltage | Measuring Current Range | Current Sensitivity  | Output                |
|---|------------|-----------------------|-------------------|-------------------------|----------------------|-----------------------|
| Inverter, Smart Meter, Power Meter, circuit protection, current monitoring, home & industrial equipment, etc. | CQXXXX     | Hybrid                | 3 ~5.5<br>4.5~5.5 | ±20A to ±130A           | 12mV/A to<br>100mV/A | Analog<br>Ratiometric |

## AKM Hall Effect ICs

A Hall Effect IC uses a Hall Element combined with additional circuitry internal to the IC to provide an output based on a particular function. This provides the design engineer with a complete Hall solution. Additional circuitry to interpret the output is typically not required. AKM Hall Effect ICs offer digital switch, digital latch, linear output and other specialized functions. AKM uses four different semiconductor materials in its Hall Elements. The different materials provide different performance characteristics allowing the design engineer to choose the best solution for the particular application.

| Applications   | AKM Series | Hall Element Material         | Operating Voltage                | Magnetic Sensitivity                | Type             | Output                |
|--|------------|-------------------------------|----------------------------------|-------------------------------------|------------------|-----------------------|
| <b>Switches</b>  |            |                               |                                  |                                     |                  |                       |
| <b>Open/Close detection:</b><br>Laptop, flip phone, slide phone, appliance door, security door, portable game, switch, touch sensor, louvre, etc.<br><b>Presence detection:</b><br>Ice tray, phone is in holder, phone is near hearing aid, filter, etc. | EMXXX      | Si Monolithic                 | 1.6~5.5V                         | $B_{OP}$<br>2.5mT or 3mT            | Omnipolar Switch | CMOS Single & Dual    |
|  | AKXXX      | Si Monolithic                 | 1.6~5.5V<br>1.7~3.6V             | $B_{OP}$ *<br>2.5mT or 3mT          | Omnipolar Switch | CMOS Single & Dual    |
|  | EZXXX      | InAs Hybrid                   | 2~24V                            | $B_{OP} S_{POLE}$<br>26mT           | Unipolar Switch  | Open Collector        |
|  | EWXXX      | InSb Hybrid                   | 2.4~3.3V,<br>2.5~5.5V<br>3~26.4V | $B_{OP} S_{POLE}$<br>1.5, 3, or 6mT | Unipolar Switch  | Open Collector & CMOS |
| *AK8783 allows user defined sensitivity (operate and release points) via external resistor   |            |                               |                                  |                                     |                  |                       |
| <b>Latches</b>   |            |                               |                                  |                                     |                  |                       |
| <b>Position Detection:</b><br>Flow sensor, speed sensor, jog dial, angle sensor, brushless DC motors, etc.   | EMXXX      | Si Monolithic                 | 1.6~5.5V<br>3.5~18V              | $B_{OP}$<br>1.8mT or 3mT            | Bipolar Latch    | Open Drain & CMOS     |
|  | AKXXX      | Si Monolithic                 | 1.6~5.5V                         | $B_{OP}$<br>1.5mT or 1.8mT          | Bipolar Latch *  | Open Drain & CMOS     |
|  | EZXXX      | InAs Hybrid                   | 3.8~24V                          | $B_{OP}$<br>4.2mT                   | Bipolar Latch    | Open Collector        |
|  | EWXXX      | InSb Hybrid                   | 2.5~5.5V<br>3.0~26.4V<br>4.5~18V | $B_{OP}$<br>3 or 10mT               | Bipolar Latch    | Open Collector        |
| *AK8775 & AK8776 detect both horizontal and vertical magnetic fields   |            |                               |                                  |                                     |                  |                       |
| <b>Linear</b>  |            |                               |                                  |                                     |                  |                       |
| <b>Position:</b><br>Weight sensor<br><b>Rotation/Angle:</b><br>Robot, jog dial, joy stick, etc.<br><b>Current sensor:</b><br>Inverter, Smart Meter, Power Meter, circuit protection, current monitoring, home & industrial equipment, etc.               | EQXXX      | InAs Hybrid<br>(Quantum well) | 3~5.5V                           | 20, 40, 65, or<br>130mV/mT          | Linear           | Analog Ratiometric    |

# Selection Guide

## Hall Elements

| P/N       | R <sub>IN</sub><br>(Feature) | Supply<br>Voltage | Sensitivity<br>mV/mT @ HE | Response<br>time | Supply<br>Current | Output | Temp<br>range | Package |
|-----------|------------------------------|-------------------|---------------------------|------------------|-------------------|--------|---------------|---------|
| HG0811    | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SON    |
| HG0812    | 600                          | 0.5 ~ 8           | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SON    |
| HG0813    | 1250                         | 0.5 ~ 12          | 1.8 at 6V                 | < 1μs            | 4.8mA at 6V       | Analog | -40~+125      | 4SON    |
| HG0814    | 2000                         | 0.5 ~ 8           | 1.8 at 6V                 | < 1μs            | 3mA at 6V         | Analog | -40~+125      | 4SON    |
| HG0815    | 2400                         | 0.5 ~ 8           | 1.9 at 6V                 | < 1μs            | 2.5mA at 6V       | Analog | -40~+125      | 4SON    |
| HG106A    | 600                          | 0.5 ~ 10          | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SMT    |
| HG106C    | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SMT    |
| HG106C2U  | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SMT    |
| HG116A-K  | 600                          | 0.5 ~ 10          | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SMT    |
| HG116C    | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SMT    |
| HG116C-KN | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SMT    |
| HG166A    | 1250                         | 0.5 ~ 12          | 1.8 at 6V                 | < 1μs            | 4.8mA at 6V       | Analog | -40~+125      | 4SMT    |
| HG166A-2U | 1250                         | 0.5 ~ 12          | 1.8 at 6V                 | < 1μs            | 4.8mA at 6V       | Analog | -40~+125      | 4SMT    |
| HG186A    | 2400                         | 0.5 ~ 8           | 1.9 at 6V                 | < 1μs            | 2.5mA at 6V       | Analog | -40~+125      | 4SMT    |
| HG302A    | 600                          | 0.5 ~ 8           | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SIP    |
| HG302A-K  | 600                          | 0.5 ~ 8           | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SIP    |
| HG302A-KK | 600                          | 0.5 ~ 8           | 1.7 at 6V                 | < 1μs            | 10mA at 6V        | Analog | -40~+125      | 4SIP    |
| HG302C    | 750                          | 0.5 ~ 10          | 1.3 at 6V                 | < 1μs            | 8mA at 6V         | Analog | -40~+125      | 4SIP    |
| HG362A    | 1250                         | 0.5 ~ 8           | 1.8 at 6V                 | < 1μs            | 4.8mA at 6V       | Analog | -40~+125      | 4SIP    |
| HG372A    | 2000                         | 0.5 ~ 8           | 1.8 at 6V                 | < 1μs            | 3mA at 6V         | Analog | -40~+125      | 4SIP    |
| HQ0111    |                              | 0.5 ~ 8           | 2.2 at 3V                 | < 1μs            | 3.2mA at 3V       | Analog | -40~+125      | 4SON    |
| HQ0221    | (2 elements)                 | 0.5 ~ 6           | 2.2 at 3V                 | < 1μs            | 6.4mA at 3V       | Analog | -40~+125      | 6SON    |
| HQ0222    | (2 elements)                 | 0.5 ~ 6           | 2.2 at 3V                 | < 1μs            | 6.4mA at 3V       | Analog | -40~+125      | 6SON    |
| HQ0811    |                              | 0.5 ~ 8           | 2.2 at 3V                 | < 1μs            | 3.2mA at 3V       | Analog | -40~+125      | 4SON    |
| HQ8220    | (4 elements)                 | 0.5 ~ 6           | 2.2 at 3V                 | < 1μs            | 3.2mA at 3V       | Analog | -40~+125      | 16TSSOP |
| HS0111    | (Hypersensitive)             | 0.5 ~ 2           | 1.09 at 1V                | < 1μs            | 3.0mA at 1V       | Analog | -40~+110      | 4SON    |
| HW101A    | (Hypersensitive)             | 0.5 ~ 2           | 3.7 - 6.8 at 1V           | < 1μs            | 2.5mA at 1V       | Analog | -40~+110      | 4SMT    |
| HW101A4T  | (Hypersensitive)             | 0.5 ~ 2           | 3.7 - 6.8 at 1V           | < 1μs            | 2.5mA at 1V       | Analog | -40~+110      | 4DIP    |
| HW102A-FT | (Hypersensitive)             | 0.5 ~ 2           | 4.3 - 6.8 at 1V           | < 1μs            | 2.9mA at 1V       | Analog | -40~+110      | 4SMT    |
| HW102A-FU | (Hypersensitive)             | 0.5 ~ 2           | 4.3 - 6.8 at 1V           | < 1μs            | 2.9mA at 1V       | Analog | -40~+110      | 4DIP    |
| HW105A    | (Hypersensitive)             | 0.5 ~ 1.6         | 3.7 - 5.0 at 1V           | < 1μs            | 2.9mA at 1V       | Analog | -40~+110      | 4SMT    |
| HW105C    | (Hypersensitive)             | 0.5 ~ 1.6         | 1.0 - 1.3 at 1V           | < 1μs            | 2.9mA at 1V       | Analog | -40~+110      | 4SMT    |
| HW108A    | (Hypersensitive)             | 0.5 ~ 1.7         | 3.7 - 5.9 at 1V           | < 1μs            | 2.9mA at 1V       | Analog | -40~+110      | 4SMT    |
| HW300B    | (Hypersensitive)             | 0.5 ~ 2           | 3.2 - 5.9 at 1V           | < 1μs            | 2.5mA at 1V       | Analog | -40~+110      | 4SIP    |
| HW322B    | (Hypersensitive)             | 0.5 ~ 2           | 5.0 - 6.8 at 1V           | < 1μs            | 2.5mA at 1V       | Analog | -40~+110      | 4SIP    |
| HZ116C    |                              | 0.5 ~ 6           | 1.1 at 3V                 | < 1μs            | 10mA at 3V        | Analog | -40~+125      | 4SMT    |
| HZ312C    |                              | 0.5 ~ 6           | 1.1 at 3V                 | < 1μs            | 10mA at 3V        | Analog | -40~+125      | 4SIP    |

## Hall Effect Linear ICs

| P/N    | Feature     | Supply Voltage | Sensitivity mV/mT @ HE | Response time | Supply Current | Output | Temp range | Package |
|--------|-------------|----------------|------------------------|---------------|----------------|--------|------------|---------|
| EQ430L | Ratiometric | 3 ~ 5.5        | 130 at 5V              | 5 $\mu$ s     | 9mA at 5V      | Analog | -40~+100   | 3TSOP   |
| EQ431L | Ratiometric | 3 ~ 5.5        | 65 at 5V               | 5 $\mu$ s     | 9mA at 5V      | Analog | -40~+100   | 3TSOP   |
| EQ432L | Ratiometric | 3 ~ 5.5        | 40 at 5V               | 5 $\mu$ s     | 9mA at 5V      | Analog | -40~+100   | 3TSOP   |
| EQ433L | Ratiometric | 3 ~ 5.5        | 20 at 5V               | 5 $\mu$ s     | 9mA at 5V      | Analog | -40~+100   | 3TSOP   |

## Hall Effect Switch ICs

| P/N      | Feature  | Supply Voltage | Sensitivity Bop/Brp @HIC | Response time | Supply Current       | Output         | Temp range | Package |
|----------|--|----------------|--------------------------|---------------|----------------------|----------------|------------|---------|
| AK8783   | Omnipolar<br>Adj sensitivity via external resistor | 1.70 ~ 3.6     | 2.6 - 4.4<br>1.6 - 3.4   | 50ms          | 5.0 $\mu$ A at 1.8V  | Push-pull CMOS | -30~+85    | 4WLCSP  |
| AK8788   | Omnipolar<br>Ultra-small package                   | 1.6 ~ 5.5      | 3.0 / 2.2                | 50ms          | 4.5 $\mu$ A at 1.85V | Push-pull CMOS | -30~+85    | 4SON    |
| AK8789   | Dual Output<br>Omnipolar<br>Ultra-small package    | 1.6 ~ 5.5      | 2.5 / 2.0                | 50ms          | 6.5 $\mu$ A at 1.85V | Push-pull CMOS | -30~+85    | 4SON    |
| EM1781   | Omnipolar  | 1.6 ~ 5.5      | 3.0 / 2.2                | 50ms          | 6.5 $\mu$ A at 1.85V | Push-pull CMOS | -30~+85    | 4SOP    |
| EM1791   | Dual Output<br>Omnipolar                           | 1.6 ~ 5.5      | 2.5 / 2.0                | 50ms          | 6.5 $\mu$ A at 1.85V | Push-pull CMOS | -30~+85    | 4SOP    |
| EM6781   | Omnipolar  | 1.6 ~ 5.5      | 3.0 / 2.2                | 50ms          | 6.5 $\mu$ A at 1.85V | Push-pull CMOS | -30~+85    | 3SOT    |
| EW463    | Unipolar   | 2.5 ~ 5.5      | 3 / 2.2                  | 3 $\mu$ s     | 6mA at 3V            | Open collector | -30~+115   | 3SOT    |
| EW650B   | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SOT    |
| EW650B-K | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SOT    |
| EW652B   | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SOT    |
| EW652B-K | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SOT    |
| EW6672   | Unipolar   | 2.4 ~ 3.3      | 1.5 / 1.2                | 50ms          | 5 $\mu$ A at 3V      | Push-pull CMOS | -30~+85    | 3SOT    |
| EW750B   | Unipolar   | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | Open collector | -40~+115   | 3SIP    |
| EW750B-K | Unipolar   | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | Open collector | -40~+115   | 3SIP    |
| EW752B   | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SIP    |
| EW752B-K | Unipolar<br>Internal pull-up                       | 3 ~ 26.4       | 6 / 5                    | 3 $\mu$ s     | 5mA at 12V           | NPN            | -40~+115   | 3SIP    |
| EZ470    | Unipolar   | 2 ~ 24         | 26 / 20                  | 3 $\mu$ s     | 3mA at 12V           | Open collector | -40~+125   | 3SOT    |

# Selection Guide

## Hall Effect Latch ICs

| P/N      | Feature             | Supply Voltage | Sensitivity<br>Bop/Brp @HIC | Response time | Supply Current | Output         | Temp range | Package |
|----------|---------------------|----------------|-----------------------------|---------------|----------------|----------------|------------|---------|
| AK8771   | Ultra-small package | 1.6 ~ 5.5      | 1.8 / -1.8                  | 24μs          | 2.5mA at 3V    | Push-pull CMOS | -30~+85    | 4SON    |
| AK8772   | Ultra-small package | 1.6 ~ 5.5      | 1.8 / -1.8                  | 1ms           | 60μA at 3V     | Push-pull CMOS | -30~+85    | 4SON    |
| EM1011   |                     | 3.5 ~ 18       | 3.0 / -3.0                  | 25μs          | 3mA at 12V     | Open drain     | -30~+115   | 4SMT    |
| EM1711   |                     | 1.6 ~ 5.5      | 1.8 / -1.8                  | 24μs          | 2.5mA at 3V    | Push-pull CMOS | -30~+85    | 4SOP    |
| EM1712   |                     | 1.6 ~ 5.5      | 1.8 / -1.8                  | 1ms           | 60μA at 3V     | Push-pull CMOS | -30~+85    | 4SOP    |
| EW400    |                     | 4.5 ~ 18       | 10 / -10                    | 3μs           | 6mA at 12V     | Open collector | -20~+115   | 3SOT    |
| EW403    |                     | 2.5 ~ 5.5      | 10 / -10                    | 3μs           | 6mA at 3V      | Open collector | -30~+115   | 3SOT    |
| EW413    |                     | 2.5 ~ 5.5      | 3 / -3                      | 3μs           | 6mA at 3V      | Open collector | -30~+115   | 3SOT    |
| EW610B   |                     | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12v     | Open collector | -40~+115   | 3SOT    |
| EW610B-K |                     | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12v     | Open collector | -40~+115   | 3SOT    |
| EW612B   | Internal pull-up    | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12v     | NPN            | -40~+115   | 3SOT    |
| EW612B-K | Internal pull-up    | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12v     | NPN            | -40~+115   | 3SOT    |
| EW710B   |                     | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12V     | Open collector | -40~+115   | 3SIP    |
| EW710B-K |                     | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12V     | Open collector | -40~+115   | 3SIP    |
| EW712B   | Internal pull-up    | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12V     | NPN            | -40~+115   | 3SIP    |
| EW712B-K | Internal pull-up    | 3 ~ 26.4       | 3 / -3                      | 3μs           | 5mA at 12V     | NPN            | -40~+115   | 3SIP    |
| EZ410    |                     | 3.8 ~ 24       | 4.2 / -4.2                  | 3μs           | 5mA at 12V     | Open collector | -40~+125   | 3SOT    |

## Hall Effect Special ICs

| P/N    | Feature  | Supply Voltage              | Sensitivity<br>Bop/Brp @HIC | Response time | Supply Current         | Output                                | Temp range | Package |
|--------|--|-----------------------------|-----------------------------|---------------|------------------------|---------------------------------------|------------|---------|
| AK8775 | Encoder<br>Dual output<br>A/B Quadrature                         | 1.6 ~ 5.5                   | 1.5 / -1.5                  | 1ms           | 90µA at 3V             | Pulse<br>Push-pull<br>CMOS            | -30~+85    | 4SMT    |
| AK8776 | Encoder<br>Dual output<br>F - pulse<br>D - rotation<br>direction | 1.6 ~ 5.5                   | 1.5 / -1.5                  | 1ms           | 90µA at 3V             | Push-pull<br>CMOS                     | -30~+85    | 4SMT    |
| EM3242 | Angle sensor<br>Ratiometric                                      | 2.7 ~ 3.3                   | -                           | 140µs         | 8mA                    | Analog                                | -30~+85    | 6TSSOP  |
| EQ0442 | Hybrid APD<br>Analog Pointing<br>Device                          | VDD:2.5~3.3<br>VDI:1.65~VDD | -                           | 16ms          | 6µA at 3V<br>(Ext Clk) | SPI<br>Serial Peripheral<br>Interface | -30~+85    | 20GFN   |

## Current Sensor Modules

| P/N    | Current<br>(Feature)  | Supply Voltage | Sensitivity<br>mV/A | Response time | Supply Current | Output                  | Temp range | Package |
|--------|-----------------------|----------------|---------------------|---------------|----------------|-------------------------|------------|---------|
| CQ121E | 20A                   | 3 ~ 5.5        | 63.5                | 3µs           | 9mA at 5V      | Analog<br>(Ratiometric) | -30~+85    | 5SIP    |
| CQ131E | 30A                   | 3 ~ 5.5        | 27                  | 3µs           | 9mA at 5V      | Analog<br>(Ratiometric) | -30~+85    | 5SIP    |
| CQ2063 | 35A<br>(2% accuracy)  | 4.5~5.5        | 60                  | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SIP    |
| CQ2064 | 54A<br>(2% accuracy)  | 4.5~5.5        | 40                  | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SIP    |
| CQ2065 | 85A<br>(2% accuracy)  | 4.5~5.5        | 25                  | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SIP    |
| CQ2066 | 130A<br>(2% accuracy) | 4.5~5.5        | 12                  | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SIP    |
| CQ2092 | 21A<br>(2% accuracy)  | 4.5~5.5        | 100                 | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SMT    |
| CQ2093 | 35A<br>(2% accuracy)  | 4.5~5.5        | 60                  | 1µs           | 6.6mA at 5V    | Analog<br>(Ratiometric) | -40~+90    | 7SMT    |





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