



DATA SHEET

Hall Effect Current Sensor

PN: CHK_QD85S2L

I_{PN}=500-1200A

Feature

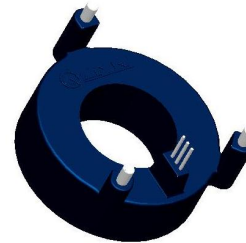
- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- Automotive grade hall chip.

Advantages

- High accuracy, very good linearity
- Small volume , space saving
- Low temperature drift
- Optimized response time, no insertion losses
- High immunity to external interference

Applications

- Electric power steering system
- Starting power generation
- Converter
- Battery management
- Motor driven applications



RoHS



Electrical data: (Ta=25°C, Vc=+5.0VDC)

Parameter Ref	CHK500 QD85S2L	CHK800 QD85S2L	CHK1000 QD85S2L	CHK1200 QD85S2L
Rated input I _{pn} (A)	500	800	1000	1200
Measuring range I _p (A)	0~±500	0~±800	0~±1000	0~±1200
Rated measurement output (V)	$U_{out} = (U_c / 5) \times (U_o + S \times I_p)$			
Sensitivity S	2000mV/I _{PN}			
Output offset voltage V _{OE}	2.5V ± 20mV @+5V			
Load resistance R _L (kΩ)	≥ 4.7			
Power supply voltage V _C (V)	+5V (± 0.5%)			
Current consumption I _C (mA)	≤ 10			
Accuracy X _G (%)	≤ ±1.0% (+25°C)			
Linearity error ε _r (%FS)	≤ ±1.0%			
Zero offset voltage coefficient TC _{V_{OE}} (mV/°C)	≤ ±0.08 (-40°C~ +125°C)			
Output voltage temperature coefficient TC _{V_{out}} (%/°C)	≤ ±0.05 (-40°C~ +125°C)			
Di/dt accurately followed (A/μs)	> 100			



Response time $t_{ra}(\mu s)$	≤ 6
Bandwidth (-3db) BW (KHZ)	DC-50
Effective value of AC isolation withstand voltage Vd(KV)	@50Hz/60s/0.2mA 3.0

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-40 ~ +125
Storage temperature $T_S(^{\circ}C)$	-55~ +125
Mass M(g)	18
Standards	ISO16750
	IEC60068
	GB/T28046

Dimensions(mm):

	Connection
	<p>1. +5.0V 2. GND 3. OUT</p>
	General tolerance
	<p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole: $D 17.0 \pm 0.2\text{mm}$</p>

Remarks:

- When the current to be measured flows through the input pin of the sensor, it can be measured at the output end measure the magnitude of the current.
- Dynamic performance (di/dt and noise) when the busbar is fully filled with primary perforation
- Different rated input current and output voltage can be customized according to user requirements The sensor.

WARNING : Incorrect wiring may cause damage to the sensor.

