



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# Hall Effect Current Sensor S29S1T0D24ZJ

## Features:

- Closed Loop type
- Current or voltage output
- Conversion ratio K = 1:5000
- Panel mounting with JST : BH3P-VH-1.
- Large aperture
- Insulated plastic case according to UL94V0

## Advantages:

- Excellent accuracy and linearity
- Very low temperature drift
- No insertion loss
- High Immunity to external interferences
- Optimised response time
- Wide supply voltage range

## Specifications

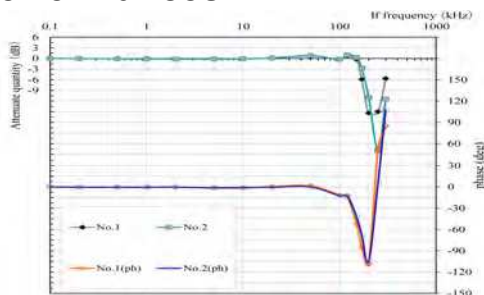
T<sub>A</sub>=25°C, V<sub>CC</sub>=±24V

Parameters	Symbol	S29S1T0D24ZJ		
Rated Current	I <sub>f</sub>	1000A		
Maximum Current	I <sub>fmax</sub>	± 2100A (see below)		
I <sub>f</sub> = ± A <sub>DC</sub> Measuring resistance @ 85°C	R <sub>M</sub>	±15V	70°C	1000A : 0Ω ~ 21Ω 1200A : 0Ω ~ 9Ω 1300A : 0Ω ~ 5Ω
			85°C	1000A : 0Ω ~ 18Ω 1200A : 0Ω ~ 7Ω
		±24V	70°C	1000A : 0Ω ~ 60.5Ω 1800A : 0Ω ~ 14Ω 2100A : 0Ω ~ 4Ω
			85°C	1000A : 10Ω ~ 58.5Ω 1800A : 10Ω ~ 12Ω
Conversion Ratio	K	1 : 5000		
Output Current	I <sub>OUT</sub>	± 200mA		
Offset Current	I <sub>OE</sub>	≤ ± 0.4mA @ I <sub>f</sub> = 0A <sup>1</sup>		
Output Current Accuracy	X	I <sub>OUT</sub> ± 0.4% (without I <sub>of</sub> )		
Output Linearity	ε <sub>L</sub>	≤ ± 0.1% @ I <sub>f</sub>		
Supply Voltage	V <sub>CC</sub>	± 15V ~ ± 24V (±5%)		
Consumption Current	I <sub>CC</sub>	± 35mA (Output Current is not included)		
Response Time <sup>2</sup>	t <sub>r</sub>	< 1.0μs @ di/dt = 100A / μs		
Output Temperature Characteristic	TCI <sub>OUT</sub>	< ± 0.01 % / °C @ I <sub>f</sub> (without TCI <sub>OE</sub> )		
Offset Temperature Characteristic	TCI <sub>OE</sub>	≤ ± 0.8mA max @ I <sub>f</sub> = 0A		
Hysteresis allowance	I <sub>OH</sub>	≤ 0.2mA (0A ↔ 3 x I <sub>f</sub> )		
Insulation Withstanding	V <sub>d</sub>	AC 4000V, for 1minute (sensing current 0.5mA), inside of aperture ↔ terminals		
Insulation Resistance	R <sub>IS</sub>	> 500MΩ (@ DC 500V) inside of aperture ↔ terminals		
Frequency Bandwidth	f	DC .. 100 kHz		
Secondary Coil Resistance	R <sub>S</sub>	48Ω @ T <sub>A</sub> = 70°C 50Ω @ T <sub>A</sub> = 85°C		
Operating Temperature	T <sub>A</sub>	- 40°C ~ +85°C		
Storage Temperature	T <sub>S</sub>	- 40°C ~ +90°C		

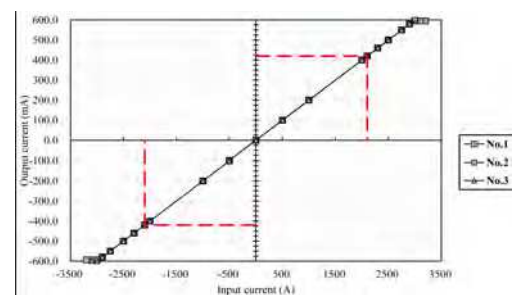
<sup>1</sup> Offset current value is after removal of core hysteresis — <sup>2</sup> Time between 90% input current full scale and 90% of sensor output full scale

## Electrical Performances

Frequency Characteristics



Saturation Characteristics



# Hall Effect Current Sensor S29S1T0D24ZJ

## Mechanical dimensions in mm

