

Hall Effect Current Sensors L34S***D15 Series



Features:

- Open Loop type
- Panel mounting
- Bipolar power supply
- Large aperture
- Insulated plastic case according to UL94V0
- UL Recognition

Advantage:

- Excellent accuracy and linearity
- Wide nominal current range
- Low temperature drift
- No insertion loss
- High Immunity To External Interference
- Optimised response time
- Current overload capability

Specifications

 $T_A=25^{\circ}\text{C}$, $V_{CC}=\pm 15\text{V}$, $R_L=10\text{k}\Omega$

Parameters	Symbol	L34S200D15	L34S300D15	L34S400D15	L34S500D15	L34S600D15	L34S800D15	L34S1T0D15	L34S1T2D15	L34S1T5D15
Primary nominal current	I_f	200A	300A	400A	500A	600A	800A	1000A	1200A	1500A
Saturation current	I_{fmax}	$\geq \pm 600\text{A}$	$\geq \pm 900\text{A}$	$\geq \pm 1200\text{A}$	$\geq \pm 1500\text{A}$	$\geq \pm 1800\text{A}$	$\geq \pm 2400\text{A}$	$\geq \pm 2500\text{A}$	$\geq \pm 2500\text{A}$	$\geq \pm 2500\text{A}$
Rated output voltage	V_o	$4\text{V} \pm 0.040\text{V}$ (at I_f)								
Offset voltage ¹	V_{of}	$\leq \pm 0.020\text{V}$ (at $I_f=0\text{A}$)								
Output linearity ² (0A, 0.5 I_f , I_f)	ϵ_L	$\leq \pm 0.5\%$ (at I_f)								
Power supply voltage	V_{CC}	$\pm 15\text{V} \pm 5\%$								
Consumption current	I_{CC}	$\leq 25\text{mA}$								
Response time ³	t_r	$\leq 5\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$)								
Thermal drift of gain ⁴	TcV_o	$\leq \pm 0.05\% / ^{\circ}\text{C}$								
Thermal drift of offset	TcV_{of}	$\leq \pm 1.0 \text{ mV}/^{\circ}\text{C}$								
Hysteresis error	V_{OH}	$\leq 10\text{mV}$ (at $I_f=0\text{A} \rightarrow I_f \rightarrow 0\text{A}$)								
Insulation voltage	V_d	AC3000V for 1minute (sensing current 0.5mA), inside of aperture \leftrightarrow terminal								
Insulation resistance	R_{IS}	$\geq 500\text{M}\Omega$ (at DC500V), inside of aperture \leftrightarrow terminal								
Ambient operation temperature	T_A	$-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$								
Ambient storage temperature	T_S	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$								

¹ After removal of core hysteresis — ² Without offset — ³ Time between 10% input current full scale and 90% of sensor output full scale — ⁴ Without Thermal drift of offset

Electrical Performances



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Mechanical dimensions



NOTES

1. Unit is mm
2. Tolerance is 0.5mm

Connector

Manufacturer	Part Number	Old Part Number
Molex	22-04-1041	5045-04A

Terminal Number:

- 1: +V_{CC}(+15V)
- 2: - V_{CC}(-15V)
- 3: V_{OUT}
- 4: GND

Electrical connection diagram



UL Standard

UL 508 , CSA C22.2 No.14 (UL FILE No.E243511)

- For use in Pollution Degree 2 Environment.
- Maximum Surrounding air temperature rating, 80°C.

CAUTION

Do not wrap the primary conductor around the core part of the product for preventing to reduce the required spacings.

Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
165g	10	50	-

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Tamura:

[L34S1T0D15](#) [L34S1T2D15](#) [L34S1T5D15](#) [L34S200D15](#) [L34S400D15](#) [L34S500D15](#) [L34S800D15](#) [L34S600D15](#)
[L34S300D15](#)