



# 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

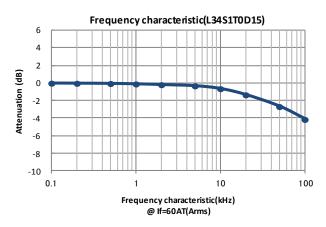
**Specifications** 

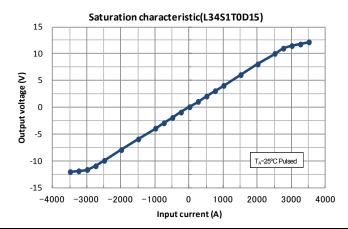
 $T_A{=}25^{o}C,\,V_{CC}{=}{\pm}15V,\,R_L{=}10k\Omega$ 

Parameters	Symbol	L34S200D15	L34S300D15	L34S400D15	L34S500D15	L34S600D15	L34S800D15	L34S1T0D15	L34S1T2D15	L34S1T5D15
Primary nominal cur- rent	I <sub>f</sub>	200A	300A	400A	500A	600A	800A	1000A	1200A	1500A
Saturation current	I <sub>fmax</sub>	≥ ±600A	≥ ±900A	≥ ±1200A	≥ ±1500A	≥ ±1800A	≥ ±2400A	≥ ±2500A	≥ ±2500A	≥ ±2500A
Rated output voltage	V <sub>o</sub>	4V ± 0.040V (at If)								
Offset voltage <sup>1</sup>	$V_{of}$	≤ ± 0.020V (at If=0A)								
Output linearity <sup>2</sup> ( 0A, 0.5I <sub>f</sub> , I <sub>f</sub> )	ε <sub>L</sub>	≤ ± 0.5% (at If)								
Power supply voltage	V <sub>cc</sub>	± 15V ±5 %								
Consumption current	lcc	≤ 25mA								
Response time <sup>3</sup>	t <sub>r</sub>	≤ 5µs (at di/dt = 100A / µs)								
Thermal drift of gain⁴	TcVo	≤ ± 0.05% / °C								
Thermal drift of offset	TcVof	≤ ± 1.0 mV/°C								
Hysteresis error	V <sub>OH</sub>	≤ 10mV (at If=0A→If→0A)								
Insulation voltage	V <sub>d</sub>	AC3000V for 1minute (sensing current 0.5mA), inside of aperture ⇔ terminal								
Insulation resistance	R <sub>IS</sub>	≥ 500MΩ (at DC500V), inside of aperture ⇔ terminal								
Ambient operation temperature	TA	-30°C~+80°C								
Ambient storage temperature	Ts	-40°C~+85°C								

<sup>&</sup>lt;sup>1</sup> After removal of core hysteresis— <sup>2</sup> Without offset — <sup>3</sup> Time between 10% input current full scale and 90% of sensor output full scale — <sup>4</sup> Without Thermal drift of offset

### **Electrical Performances**







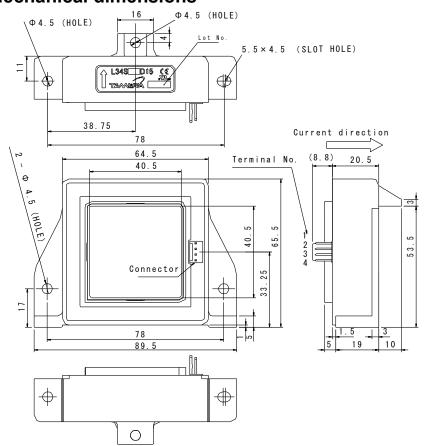






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## **Mechanical dimensions**



#### **NOTES**

- 1. Unit is mm
- 2. Tolerance is 0.5mm

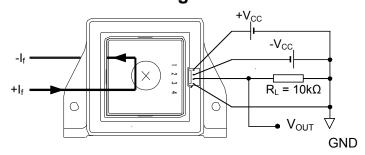
#### Connector

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

#### Terminal Number:

- 1: +V<sub>CC</sub>(+15V)
- 2: V<sub>CC</sub>(-15V)
- 3: V<sub>OUT</sub>
- 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	-





