

# Hall Effect Current Sensors L03S\*\*\*D15 Series



## Features:

- Open Loop type
- Panel mounting
- Molex connector
- Insulated plastic case according to UL94V0

## Advantage:

- Excellent accuracy and linearity
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity To External Interference
- Current overload capability

## Specifications

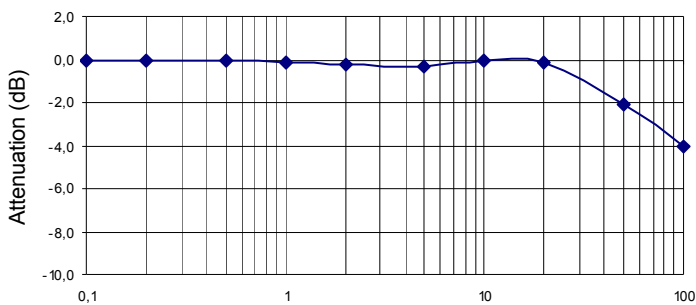
$T_A=25^{\circ}\text{C}$ ,  $V_{CC}=\pm 15\text{V}$ ,  $R_L=10\text{k}\Omega$

Parameters	Symbol	L03S050D15	L03S100D15	L03S200D15	L03S300D15	L03S400D15	L03S500D15	L03S600D15
Rated current	$I_f$	50AT	100AT	200AT	300AT	400AT	500AT	600AT
Maximum Current	$I_{fmax}$	$\pm 150\text{AT}$	$\pm 300\text{AT}$	$\pm 600\text{AT}$	$> \pm 700\text{AT}$			
Output Voltage	$V_{OUT}$	$4\text{V} \pm 40\text{mV} @ I_f$						
Offset Voltage	$V_{OE}$	$\leq \pm 40\text{mV} @ I_f = 0\text{A}$	$\leq \pm 30\text{mV} @ I_f = 0\text{A}$					
Accuracy <sup>1</sup>	$X$	$\pm 1\% @ I_f$						
Output Linearity <sup>1</sup>	$\epsilon_L$	$\leq \pm 1\% @ I_f$						
Power Supply	$V_{CC}$	$\pm 15\text{V} \pm 5\%$						
Consumption Current	$I_C$	$< 12\text{mA}$						
Response Time <sup>2</sup>	$t_r$	$< 5\mu\text{s} (@ di/dt=50\text{A} / \mu\text{s})$						
Output Temperature Characteristic <sup>1</sup>	$TCV_{OUT}$	$\leq \pm 2\text{mV}/^{\circ}\text{C}$						
Offset Temperature Characteristic	$TCV_{OE}$	$< \pm 2\text{mV}/^{\circ}\text{C}$	$< \pm 1.0\text{mV}/^{\circ}\text{C}$					
Hysteresis error	$V_{OH}$	$\pm 30\text{mV} (@ 0\text{A} \leftrightarrow I_f)$			$\pm 20\text{mV} (@ 0\text{A} \leftrightarrow I_f)$		$\pm 10\text{mV} (@ 0\text{A} \leftrightarrow I_f)$	
Withstand Voltage	$V_d$	AC2500V for 1minute (sensing current 0.5mA), inside of through hole $\leftrightarrow$ terminal						
Insulation Resistance	$R_{IS}$	$> 500\text{M}\Omega$ (500V DC), inside of through hole $\leftrightarrow$ terminal						
Frequency Bandwidth <sup>3</sup>	$f$	DC .. 50kHz						
Operating Temperature	$T_A$	$-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$						
Storage Temperature	$T_S$	$-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$						

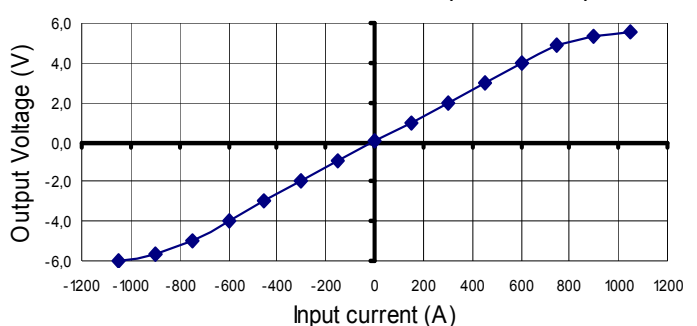
<sup>1</sup> Without offset — <sup>2</sup> Time between 10% input current full scale and 90% of sensor output full scale — <sup>3</sup> Small signal only to avoid excessive heating of magnetic core

## Electrical Performances

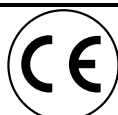
Frequency Characteristic (L03S600D15)



Saturation Characteristic (L03S600D15)

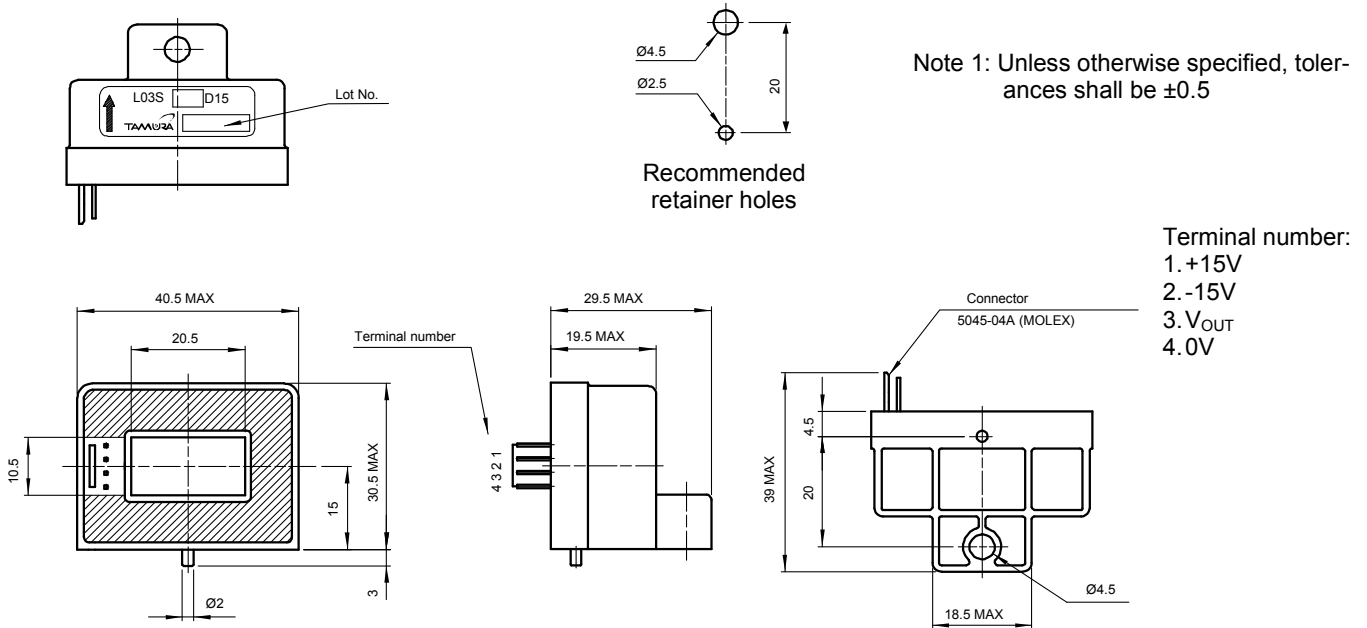


If frequency (kHz) @  $I_f=6.0\text{Arms}$

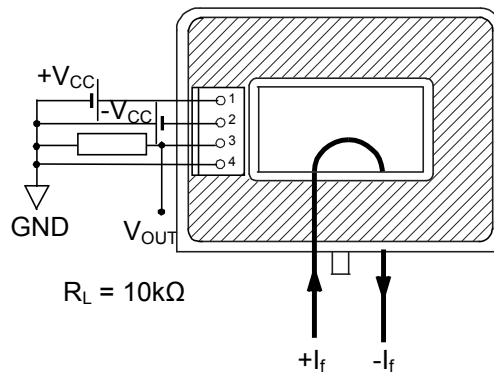


# Hall Effect Current Sensors L03S\*\*\*D15 Series

## Mechanical dimensions in mm



## Electrical connection diagram



## Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
46g	50	200	2400

# Mouser Electronics

Authorized Distributor

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

[Tamura:](#)

[L03S300D15](#) [L03S100D15](#) [L03S600D15](#) [L03S400D15](#) [L03S200D15](#) [L03S500D15](#) [L03S050D15](#)