



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!



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# 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

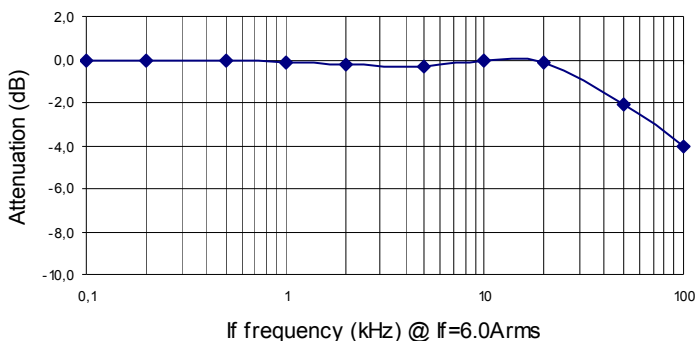
$T_A=25^{\circ}\text{C}$ ,  $V_{CC}=\pm 15\text{V}$ ,  $R_L=10\text{k}\Omega$

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	$T_S$	$-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$						

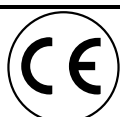
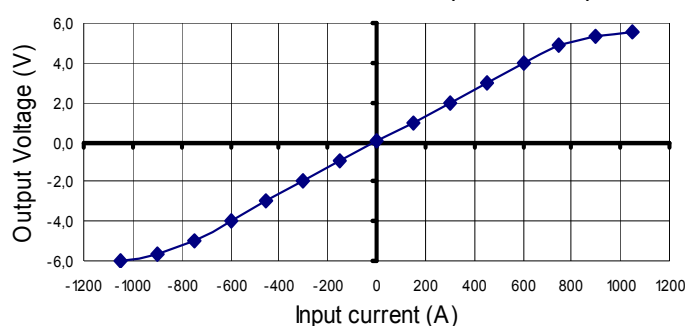
<sup>1</sup> Without offset — <sup>2</sup> Time between 10% input current full scale and 90% of sensor output full scale — <sup>3</sup> Small signal only to avoid excessive heating of magnetic core

## Electrical Performances

Frequency Characteristic (L03S600D15)

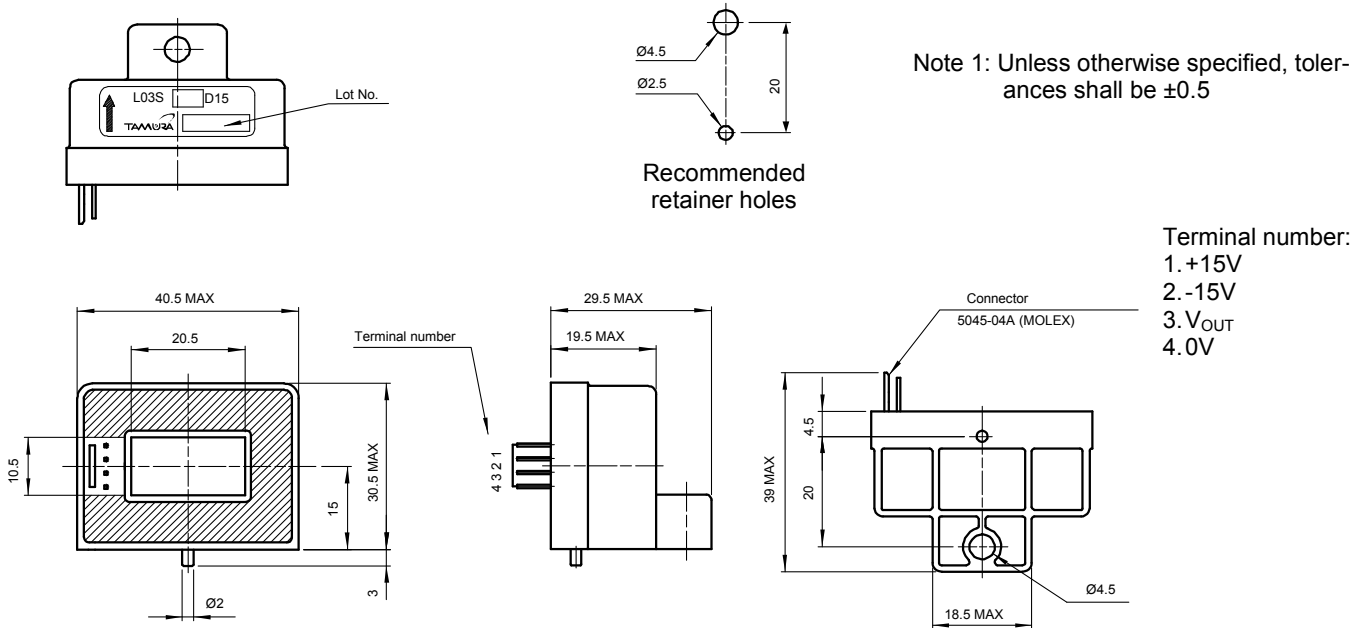


Saturation Characteristic (L03S600D15)

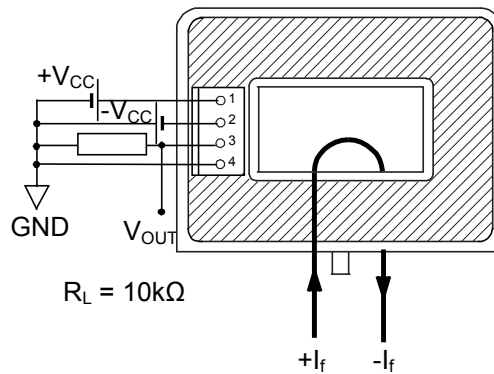


# Hall Effect Current Sensors L03S\*\*\*D15 Series

## Mechanical dimensions in mm



## Electrical connection diagram



## Package & Weight Information

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

