

# Hall Effect Current Sensors L08P\*\*\*D15M1 Series



## Features:

- Open Loop type
- Printed circuit board mounting
- Bipolar power supply
- Insulated plastic case according to UL94V0

## Advantages:

- Excellent accuracy
- Very good linearity
- Low temperature drift
- No insertion loss
- High Immunity To External Interference
- Current overload capability

## Specifications

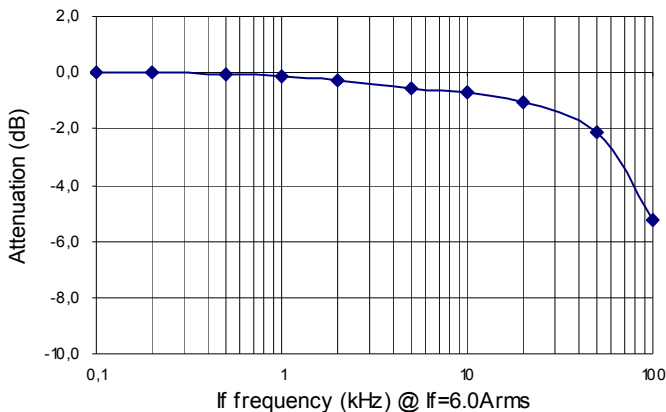
$T_A=25^{\circ}\text{C}$ ,  $V_{CC}=\pm 15\text{V}$ ,  $R_i=10\text{k}\Omega$

Parameters	Symbol	L08P050D15M1	L08P100D15M1	L08P150D15M1	L08P200D15M1
Nominal Primary DC current	$I_f$	50AT	100AT	150AT	200AT
Maximum Current	$I_{fmax}$	$\pm 150\text{AT}$	$\pm 300\text{AT}$	$\pm 450\text{AT}$	$\pm 500\text{AT}$
Output Voltage	$V_{OUT}$	$4\text{V} \pm 0.040\text{V} @ \pm I_f$			
Offset Voltage	$V_{OE}$	$< \pm 30\text{mV} @ I_f = 0\text{A}$			
Accuracy <sup>1</sup>	$X$	$\pm 1\% @ I_f$			
Output Linearity <sup>1</sup>	$\epsilon_L$	$\leq \pm 1\% @ I_f$			
Power Supply	$V_{CC}$	$\pm 1.5\text{V} \pm 5\%$			
Consumption Current	$I_C$	$\leq 12\text{mA}$			
Response Time	$t_r$	$\leq 10\mu\text{s} (@ di/dt = 10\text{A} / 5\mu\text{s})$			
Output Temperature Characteristic <sup>1</sup>	$TCV_{OUT}$	$< \pm 2\text{mV} / ^{\circ}\text{C}$	$< \pm 1\text{mV} / ^{\circ}\text{C}$		
Offset Temperature Characteristic	$TCV_{OE}$	$< \pm 2\text{mV} / ^{\circ}\text{C}$	$< \pm 1\text{mV} / ^{\circ}\text{C}$		
Hysteresis error	$V_{OH}$	$\leq 30\text{mV} (0\text{A} \leftrightarrow I_f)$	$\leq 20\text{mV} (0\text{A} \leftrightarrow I_f)$		
Withstand Voltage	$V_d$	AC 2500V for 1minute (sensing current 0.5mA), inside of aperture $\leftrightarrow$ terminal			
Insulation Resistance	$R_{IS}$	$> 500\text{M}\Omega$ (500V DC), inside of aperture $\leftrightarrow$ terminal			
Frequency Bandwidth <sup>2</sup>	$f$	DC .. 35kHz			
Operating Temperature	$T_A$	$-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$			
Storage Temperature	$T_S$	$-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$			

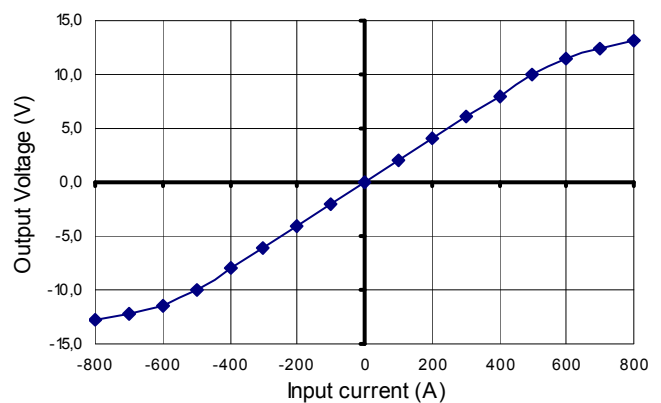
<sup>1</sup> Without offset — <sup>2</sup> Small signal only to avoid excessive heating of magnetic core

## Electrical Performances

Frequency Characteristic (L08P200D15M1)

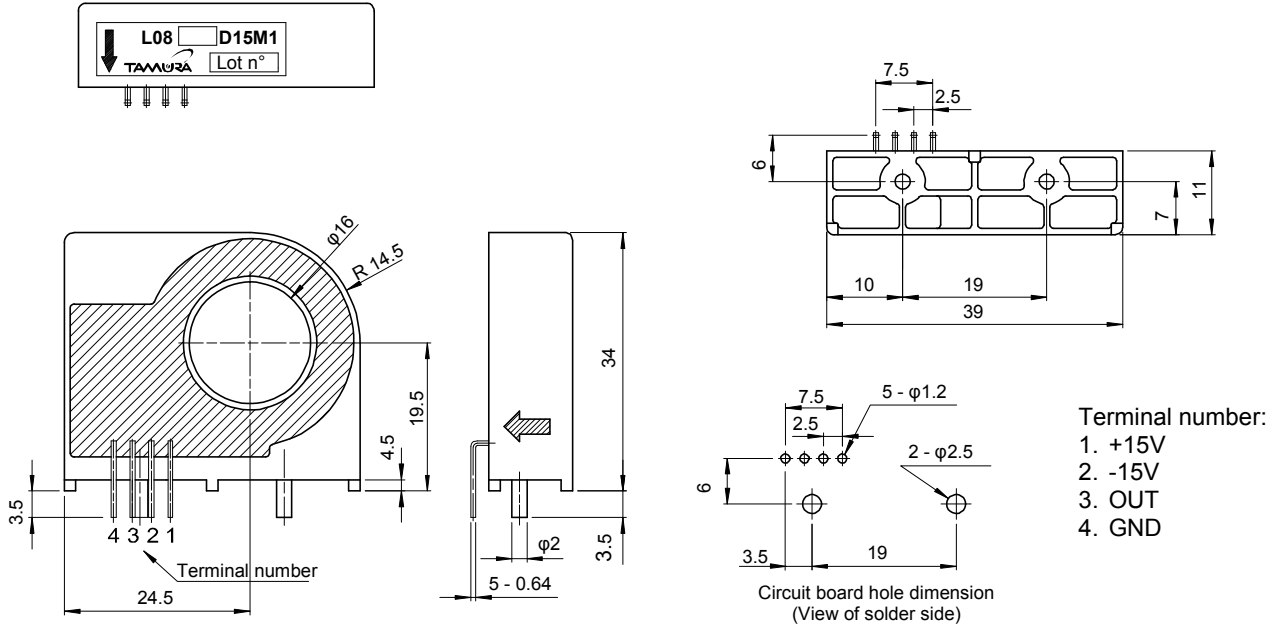


Saturation Characteristic (L08P200D15M1)

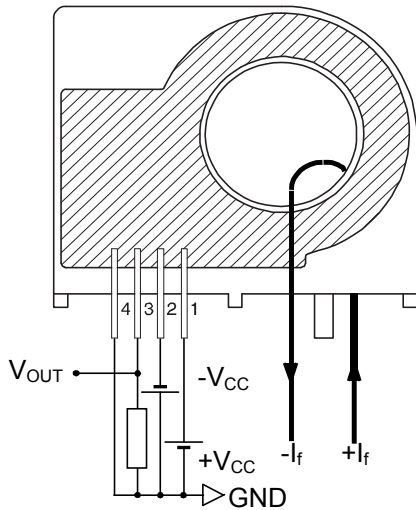


# Hall Effect Current Sensors L08P\*\*\*D15M1 Series

## Mechanical dimensions in mm



## Electrical connection diagram



## Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
20g	50	500	9000