

Hall Effect Current Sensors L08P***D15 Series



Features:

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

Advantage:

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

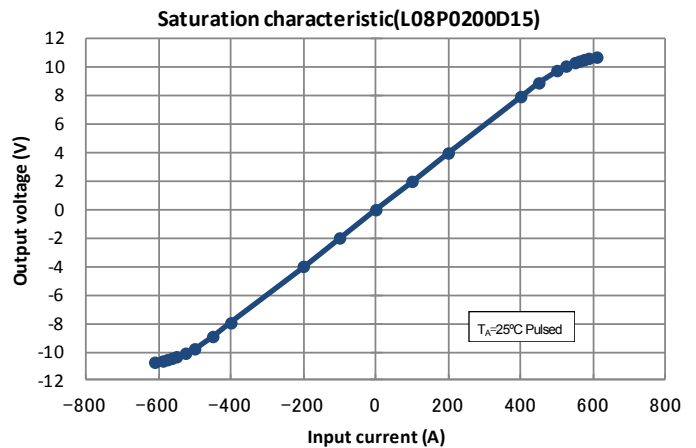
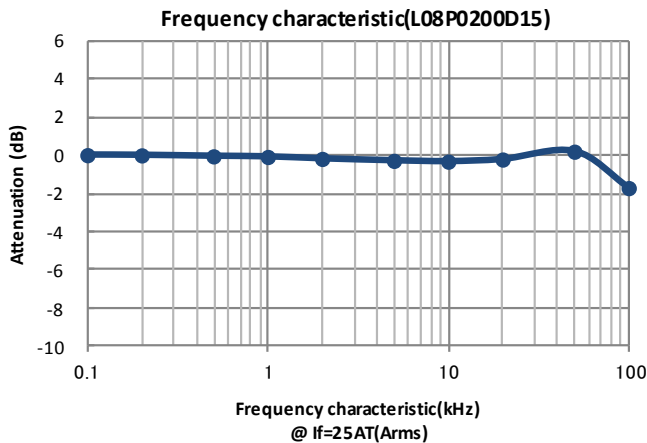
Specifications

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

Parameters	Symbol	L08P050D15	L08P100D15	L08P150D15	L08P200D15
Primary nominal current	I_f	50AT	100AT	150AT	200AT
Saturation current	I_{fmax}	$\geq \pm 150\text{AT}$	$\geq \pm 300\text{AT}$	$\geq \pm 450\text{AT}$	$\geq \pm 450\text{AT}$
Rated output voltage	V_o	4V $\pm 0.040\text{V}$ (at I_f)			
Offset voltage ¹	V_{of}	$\leq \pm 0.030\text{V}$ (at $I_f = 0\text{A}$)			
Output Linearity ² (0A~ I_f)	ϵ_L	$\leq \pm 1\%$ (at I_f)			
Power supply voltage	V_{CC}	$\pm 15\text{V} \pm 5\%$			
Consumption current	I_{CC}	12mA typ.			
Response time ³	t_r	$\leq 10\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$)			
Thermal drift of gain ⁴	$TcVo$	$\leq \pm 0.1\% / ^{\circ}\text{C}$	$\leq \pm 0.05\% / ^{\circ}\text{C}$		
Thermal drift of offset	$TcVof$	$\leq \pm 2\text{mV} / ^{\circ}\text{C}$	$\leq \pm 1\text{mV} / ^{\circ}\text{C}$		
Hysteresis error(at $I_f=0\text{A} \rightarrow I_f \rightarrow 0\text{A}$)	V_{OH}	$\leq 30\text{mV}$	$\leq 20\text{mV}$		
Insulation voltage	V_d	AC2500V for 1minute (sensing current 0.5mA), inside of through hole \leftrightarrow terminal			
Insulation resistance	R_{IS}	$\geq 500\text{M}\Omega$ (at DC500V), inside of through hole \leftrightarrow terminal			
Ambient operation temperature	T_A	$-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$			
Ambient storage temperature	T_S	$-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$			

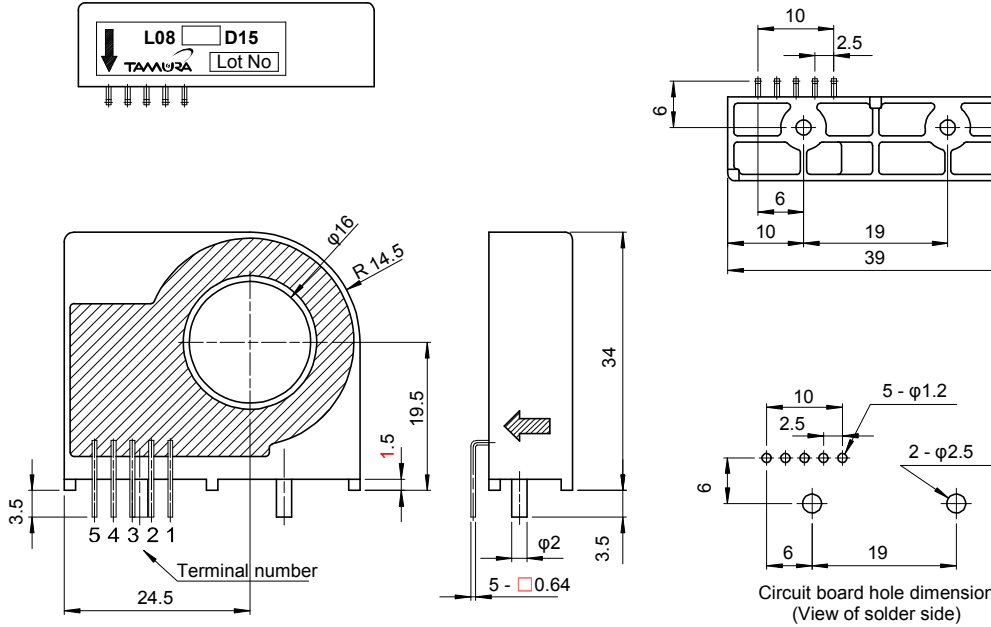
¹ After removal of core hysteresis — ² Without offset — ³ Time between 10% input current full scale and 90% of sensor output full scale — ⁴ Without Thermal drift of offset

Electrical Performances



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Mechanical dimensions in mm



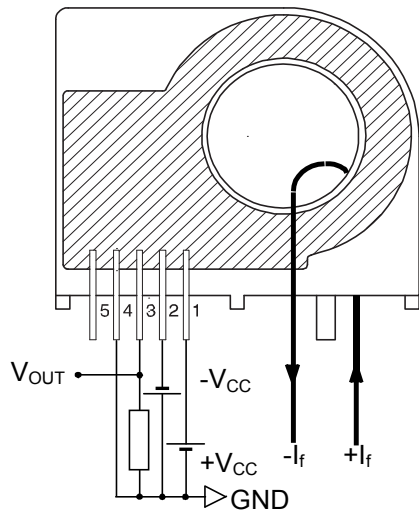
NOTES

1. Unit is mm
2. Tolerance is 0.5mm

Terminal number:

1. +V_{CC}(+15V)
2. -V_{CC}(-15V)
3. V_{OUT}
4. GND
5. NC(No connection)

Electrical connection diagram



Package & Weight Information

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



Mouser Electronics

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Tamura:

[L08P150D15](#) [L08P200D15](#) [L08P050D15](#)