

## Hall Effect Current Sensors L08P\*\*\*D15W / IPV



### Features:

- Open Loop type
- Printed circuit board mounting
- 4 pin PCB connection
- Bipolar power supply
- Extended measurement range
- 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

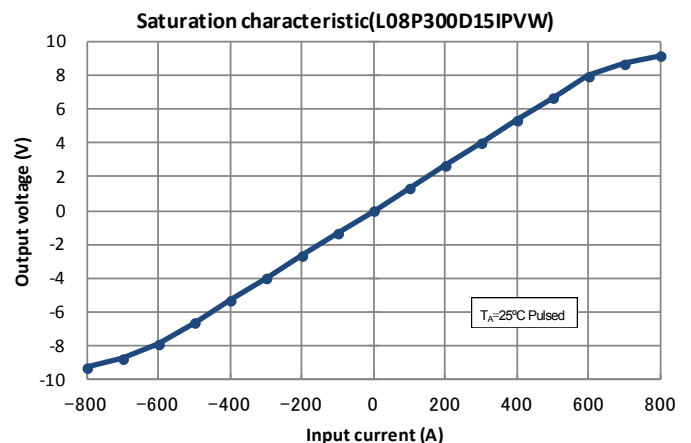
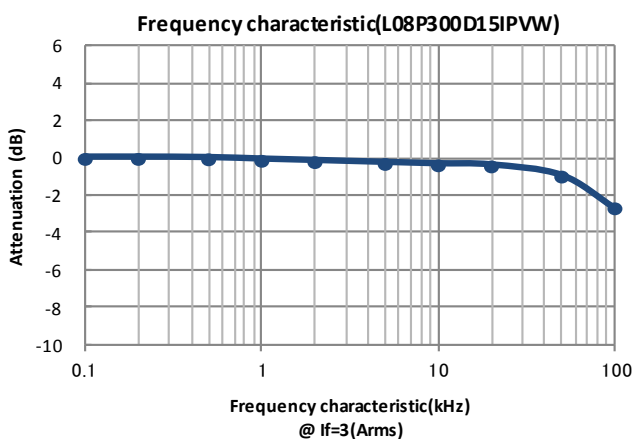
## Specifications

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

| Parameters                                 | Symbol       | L08P100D15IPV                                                                                   | L08P200D15W             | L08P300D15IPVW          |
|--------------------------------------------|--------------|-------------------------------------------------------------------------------------------------|-------------------------|-------------------------|
| Primary nominal current                    | $I_f$        | 100AT                                                                                           | 200AT                   | 300AT                   |
| Saturation current                         | $I_{fmax}$   | $\geq \pm 300\text{AT}$                                                                         | $\geq \pm 600\text{AT}$ | $\geq \pm 600\text{AT}$ |
| Rated output voltage                       | $V_o$        | 4V $\pm 0.040\text{V}$ (at $I_f$ )                                                              |                         |                         |
| Offset voltage <sup>1</sup>                | $V_{of}$     | $\leq \pm 0.030\text{V}$ (at $I_f = 0\text{A}$ )                                                |                         |                         |
| Output linearity <sup>2</sup> (0A~ $I_f$ ) | $\epsilon_L$ | $\leq \pm 1\%$ (at $I_f$ )                                                                      |                         |                         |
| Power supply voltage                       | $V_{CC}$     | $\pm 15\text{V} \pm 5\%$                                                                        |                         |                         |
| Consumption current                        | $I_{CC}$     | $\leq 20\text{mA}$                                                                              |                         |                         |
| Response time <sup>3</sup>                 | $t_r$        | $\leq 5\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$ )                                   |                         |                         |
| Thermal drift of gain <sup>4</sup>         | $TcV_o$      | $\leq \pm 0.05\% / ^{\circ}\text{C}$                                                            |                         |                         |
| Thermal drift of offset                    | $TcV_{of}$   | $\leq \pm 1.0\text{mV} / ^{\circ}\text{C}$                                                      |                         |                         |
| Hysteresis error                           | $V_{OH}$     | $\leq 20\text{mV}$ (at $I_f=0\text{A} \rightarrow I_f \rightarrow 0\text{A}$ )                  |                         |                         |
| Insulation voltage                         | $V_d$        | AC 2500V 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              | $T_A$        | $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$                                                  |                         |                         |
| Ambient storage temperature                | $T_S$        | $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$                                                  |                         |                         |

<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

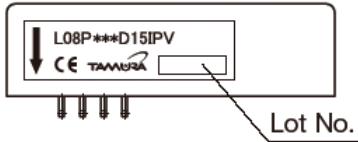
## Electrical Performances



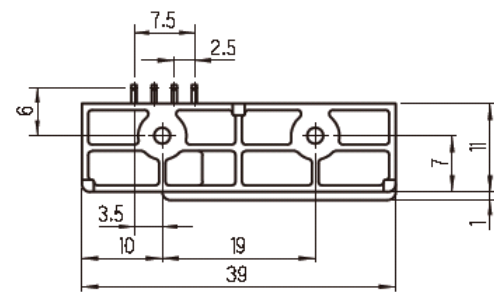
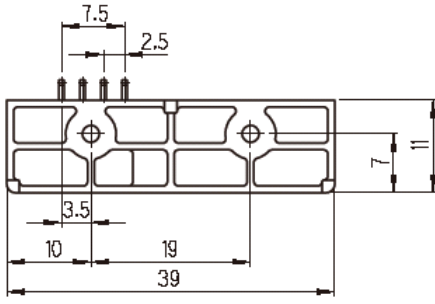
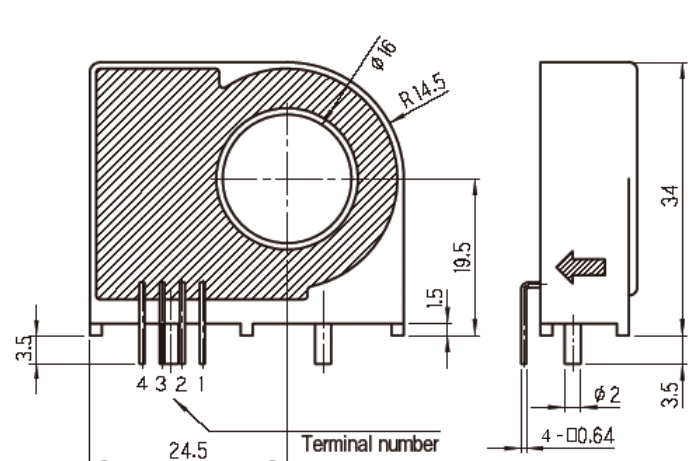
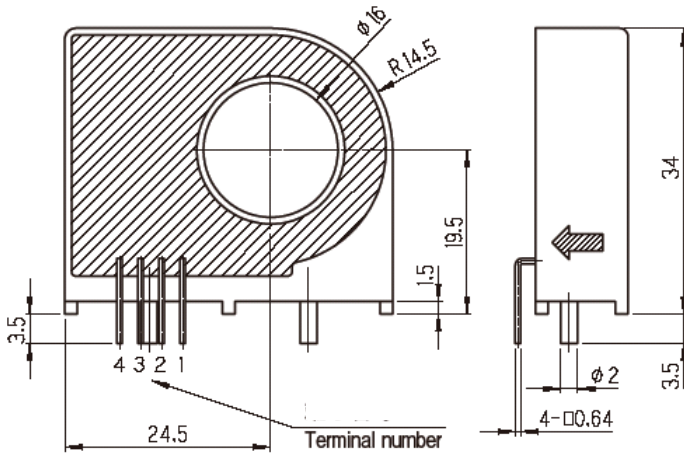
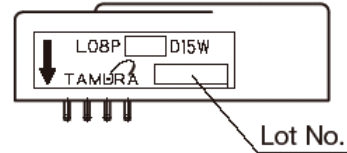
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## Mechanical dimensions

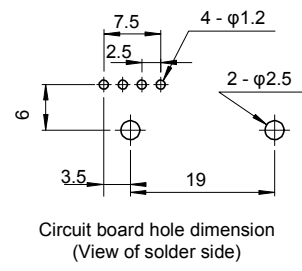
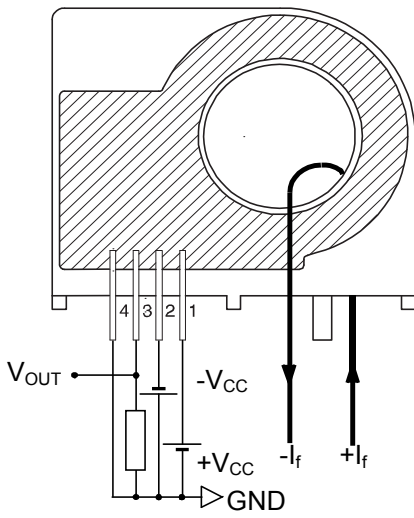
L08P100D15IPV



L08P200D15W L08P300D15IPVW



## Electrical connection diagram



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

Terminal number:  
1. +V<sub>CC</sub>(+15V)  
2. -V<sub>CC</sub>(-15V)  
3. V<sub>OUT</sub>  
4. GND

## Package & Weight Information

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

