



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 L06P***S05 Series



Features:

- Open Loop type
- Printed circuit board mounting
- Horizontal mounting
- Unipolar power supply
- Industrial temperature range
- Mounting pins
- Insulated plastic case according to UL94V0

Advantage:

- Excellent accuracy and linearity
- Wide nominal current range
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity To External Interference
- Optimised response time
- Current overload capability

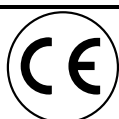
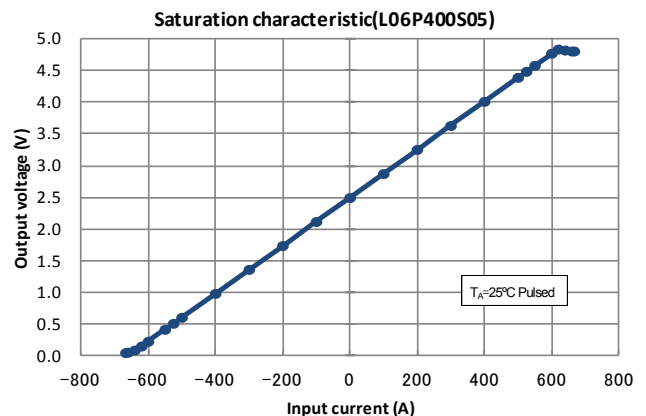
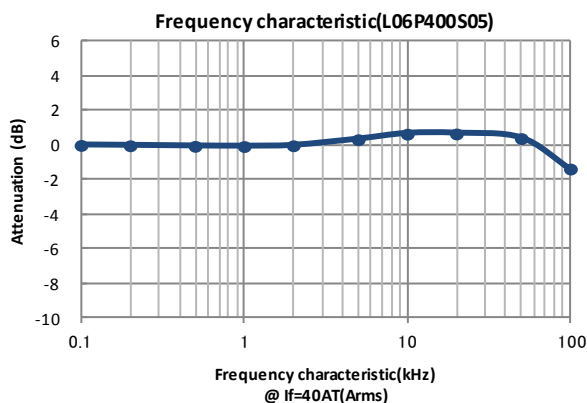
Specifications

 $T_A=25^{\circ}\text{C}$, $V_{CC}=+5\text{V}$, $R_L=10\text{k}\Omega$

| Parameters | Symbol | L06P400S05 | L06P600S05 | L06P800S05 |
|--|--------------|--|------------|------------|
| Primary nominal current | I_f | 400AT | 600AT | 800AT |
| Saturation current | I_{fmax} | $\geq \pm I_f \times 1.33$ | | |
| Rated output voltage | V_o | $V_{of} + 1.5\text{V} \pm 0.035\text{V}$ (at I_f) | | |
| Offset voltage ¹ | V_{of} | $V_{REF}^1 \pm 30\text{mV}$ (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} | $+ 5\text{V} \pm 0.1\text{V}$ | | |
| Consumption current | I_{CC} | $\leq 15\text{mA}$ | | |
| Response time ³ | t_r | $\leq 5\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$) | | |
| Thermal drift of gain ⁴ | $TcVo$ | $\leq \pm 1.5\text{mV}/^{\circ}\text{C}$ | | |
| Thermal drift of offset | $TcVof$ | $\leq \pm 1.0\text{mV}/^{\circ}\text{C}$ | | |
| Hysteresis error | V_{OH} | $\leq 10\text{mV}$ (at $I_f = 0\text{A} \rightarrow I_f \rightarrow 0\text{A}$) | | |
| 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 | $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ | | |
| Ambient storage temperature | T_S | $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ | | |

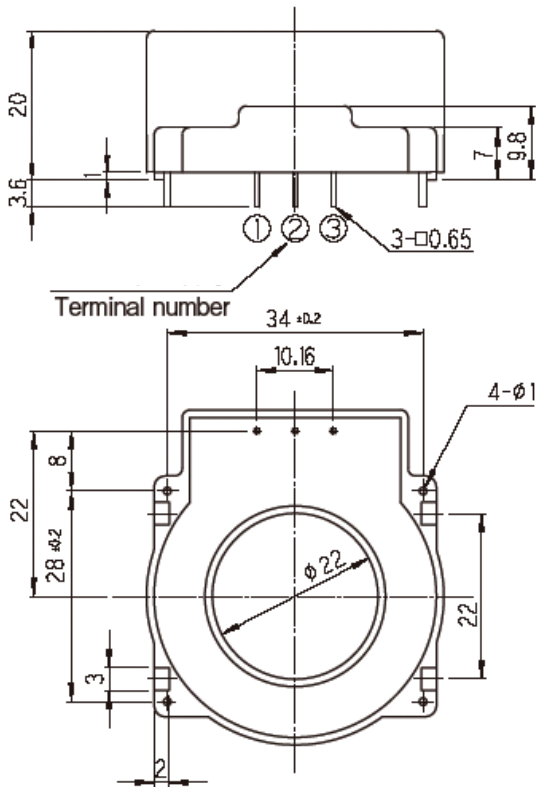
¹ $V_{REF} = V_{CC} / 2$ (ratiometric). After removal of core hysteresis—² Without offset —³ Time between 90% input current full scale and 90% of sensor output full scale—⁴ Without Thermal drift of offset

Electrical Performances



Hall Effect Current Sensors L06P***S05 Series

Mechanical dimensions

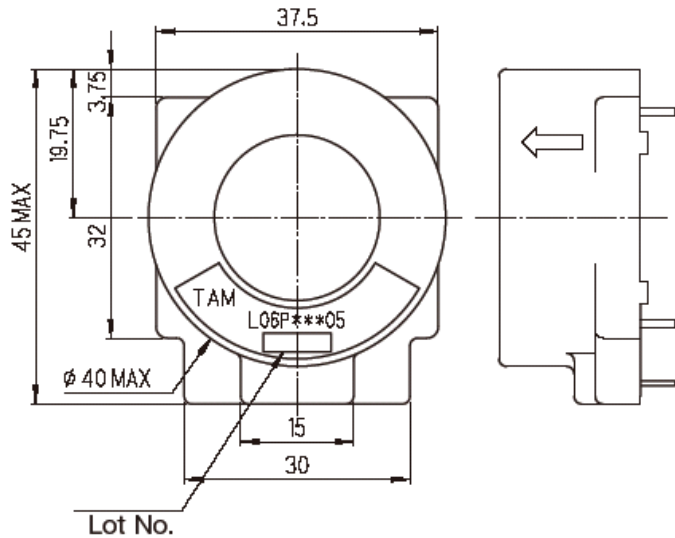


NOTES

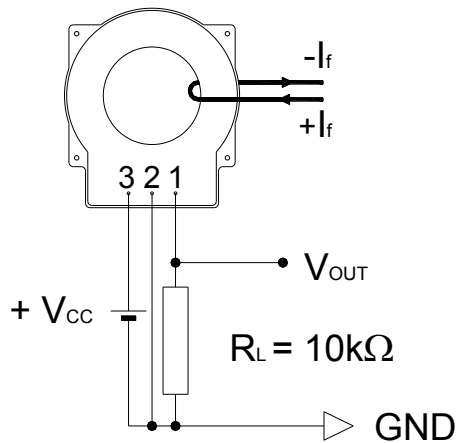
1. Unit is mm
2. Tolerance is 0.5mm

Terminal Number:

- 1: V_{OUT}
- 2: GND
- 3: $+V_{CC}(+5V)$



Electrical connection diagram



Package & Weight Information

| Weight | Pcs/box | Pcs/carton | Pcs/pallet |
|--------|---------|------------|------------|
| 65g | 100 | 500 | 4800 |

