

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	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$		

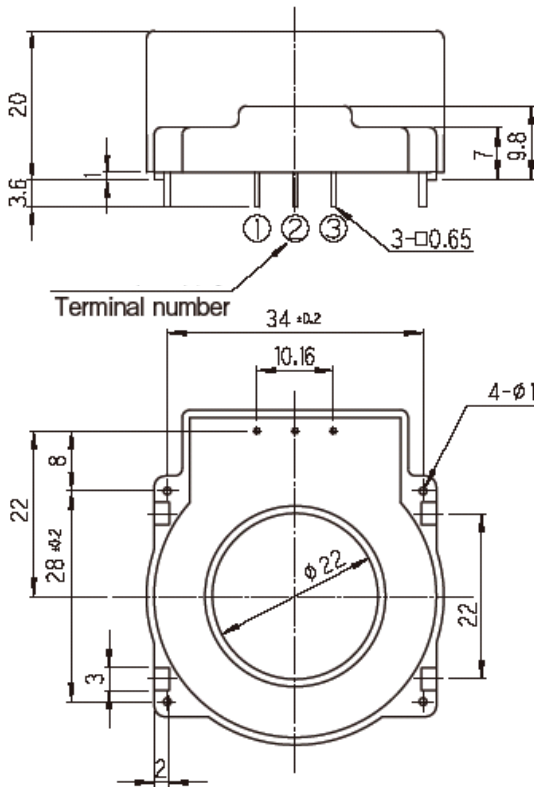
¹ $V_{REF} = V_{CC} / 2$ (ratiometric). After removal of core hysteresis—² Without offset —³ Time between 90% input current full scale and 90% of sensor output full scale—⁴ Without Thermal drift of offset

Electrical Performances



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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



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