

# Hall Effect Current Sensor L05Z800S15



## Features:

- Open Loop type
- Panel mounting
- Unipolar power supply
- Industrial temperature range
- JST connector
- Insulated plastic case according to UL94V0

## Advantage:

- Excellent accuracy and linearity
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity to external Interference
- Current overload capability
- Regulated offset voltage

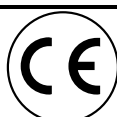
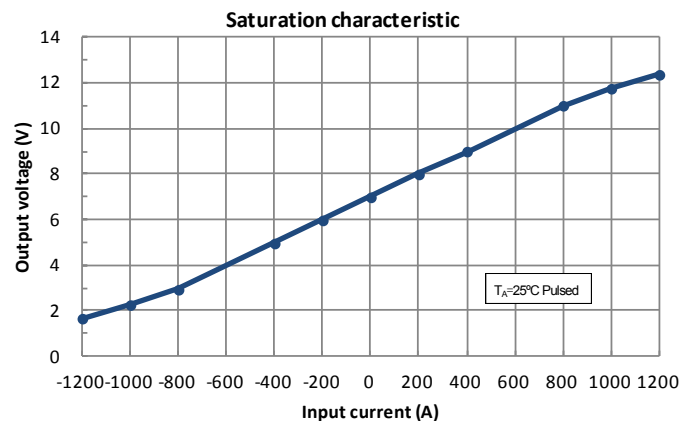
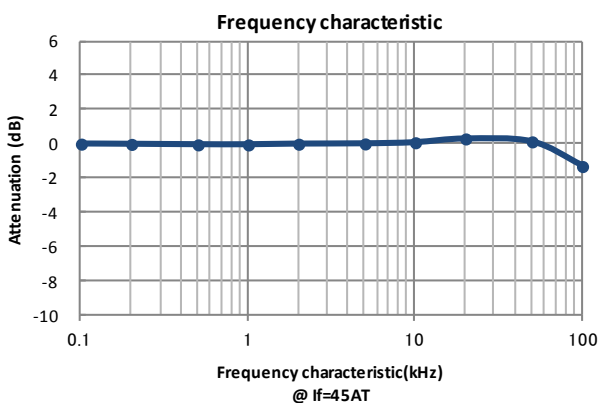
## Specifications

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

Parameters	Symbol	L05Z800S15
Primary nominal current	$I_f$	800AT
Saturation current	$I_{fmax}$	$\geq \pm 900\text{AT}$
Rated output voltage	$V_o$	$11\text{V} \pm 0.110\text{V}$ (at $I_f$ )
Offset voltage <sup>1</sup>	$V_{of}$	$+ 7.0\text{V} \pm 0.050\text{V}$ (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	$V_{CC}$	$+ 15\text{V} \pm 5\%$
Consumption current	$I_{CC}$	$\leq 20\text{mA}$
Response time <sup>3</sup>	$t_r$	$\leq 10\mu\text{s}$ (at $di/dt = 100\text{A} / \mu\text{s}$ )
Thermal drift of gain <sup>4</sup>	$TcVo$	$\leq \pm 0.1\%/^{\circ}\text{C}$
Thermal drift of offset	$TcVof$	$\leq \pm 1.0\text{mV}/^{\circ}\text{C}$
Hysteresis allowance	$V_{OH}$	$\leq 20\text{mV}$ (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	$T_S$	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

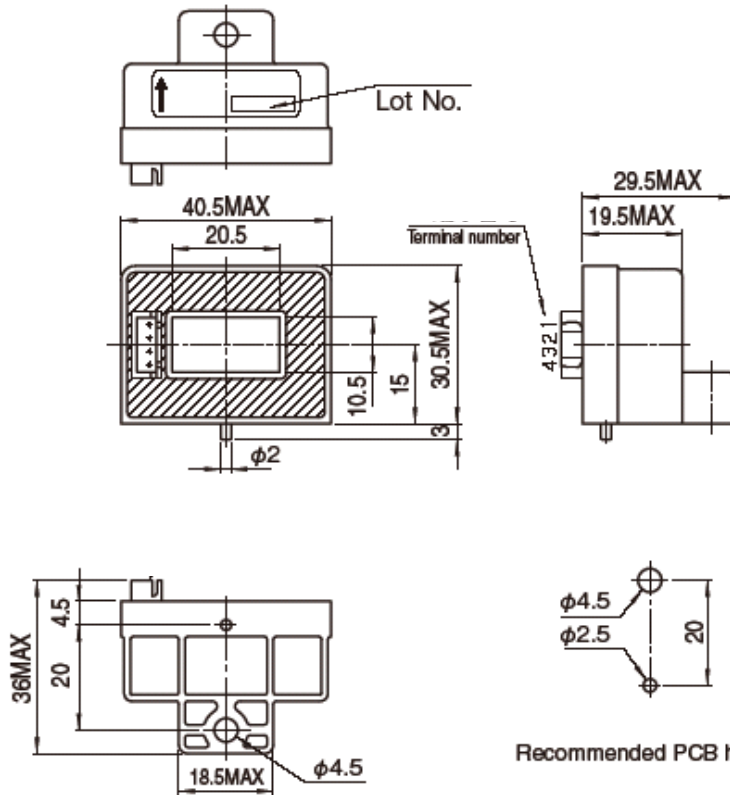
<sup>1</sup>  $V_{of}$  is fixed (independent of  $V_{CC}$ ). After removal of core hysteresis—<sup>2</sup> Without offset —<sup>3</sup> Time between 90% input current full scale and 90% of sensor output full scale—<sup>4</sup> Without Thermal drift of offset

## Electrical Performances



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## Mechanical dimensions



### NOTES

1. Unit is mm
2. Tolerance is 0.5mm

### Connector

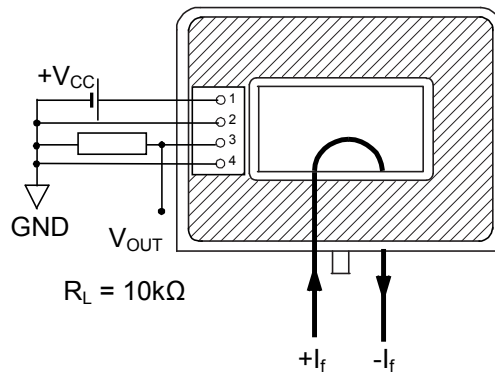
Manufacturer	Part Number
JST	B4B-XH-A-G

(Gold plated terminal)

### Terminal number:

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

## Electrical connection diagram



## Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
50g	20	200	3600

