



## 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

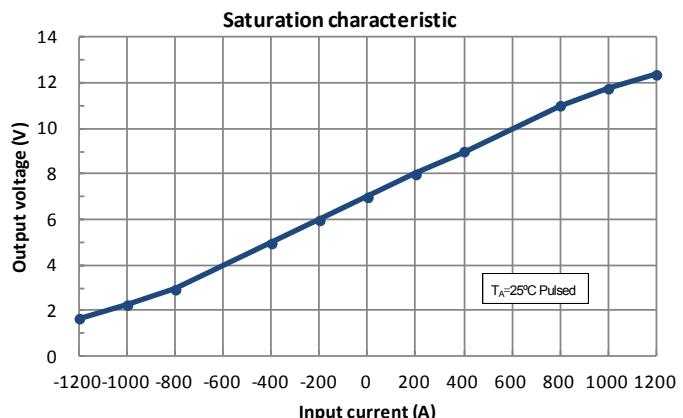
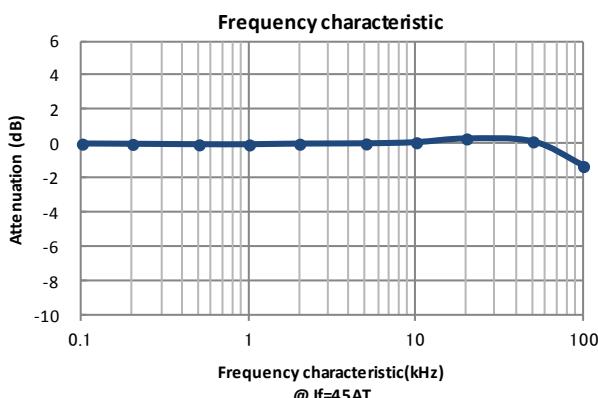
## Specifications

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

| 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>         | $T_{CVo}$    | $\leq \pm 0.1\%/\text{C}$   |
| Thermal drift of offset                    | $T_{CVof}$   | $\leq \pm 1.0\text{mV}/\text{C}$  |
| 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                | $T_S$        | $-40^\circ\text{C} \sim +85^\circ\text{C}$  |

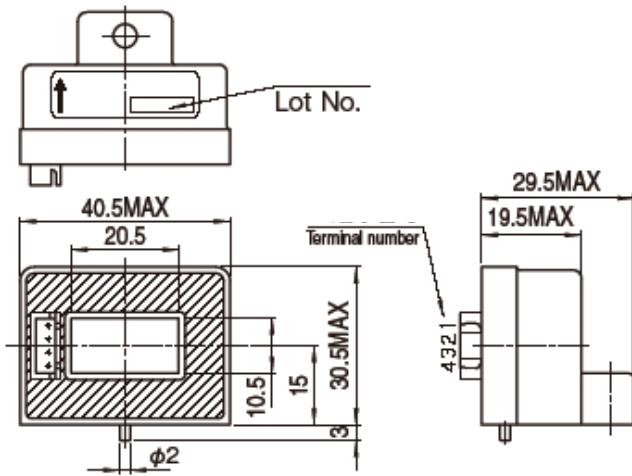
<sup>1</sup>  $V_{of}$  is fixed (independent of  $V_{CC}$ ). After removal of core hysteresis—<sup>2</sup> Without offset —<sup>3</sup> Time between 90% input current full scale and 90% of sensor output full scale—<sup>4</sup> Without Thermal drift of offset

## Electrical Performances



# Hall Effect Current Sensor L05Z800S15

## Mechanical dimensions



### NOTES

1. Unit is mm
2. Tolerance is 0.5mm

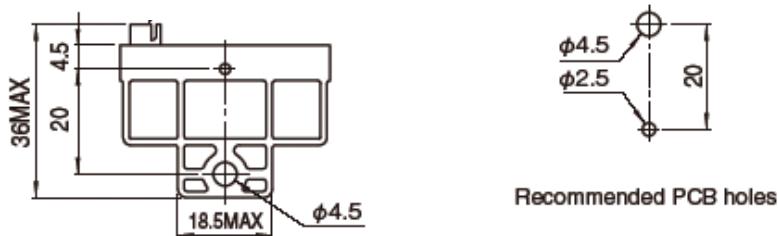
### Connector

| Manufacturer | Part Number |
|--------------|-------------|
| JST          | B4B-XH-A-G  |

(Gold plated terminal)

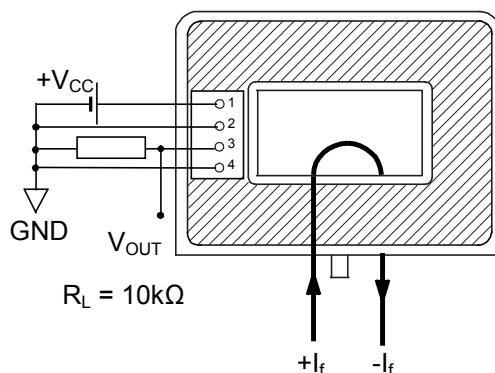
### Terminal number:

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



Recommended PCB holes

## Electrical connection diagram



## Package & Weight Information

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

