

Hall Effect Current Sensors L01Z***S05 Series

Features:

- Open Loop type
- Printed circuit board mounting
- Unipolar power supply
- Aperture for cable or bus bar
- Insulated plastic case according to UL94V0

Advantage:

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

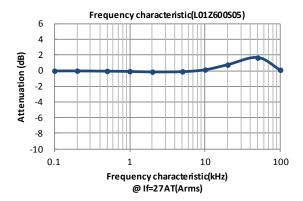
Specifications

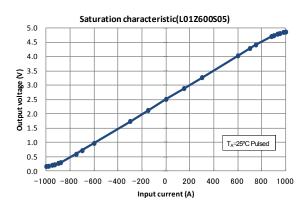
 T_A =25°C, V_{CC} =+5V, R_L =10k Ω

Parameters	Symbol	L01Z050S05	L01Z100S05	L01Z150S05	L01Z200S05	L01Z300S05	L01Z400S05	L01Z500S05	L01Z600S05
Primary nominal current	If	50AT	100AT	150AT	200AT	300AT	400AT	500AT	600AT
Saturation current	I _{fmax}	≥ ± I _f × 1.25							
Rated output voltage (at If)	Vo	V _{of} +1.5V ±0.045V V _{of} +1.5V ± 0.035V							
Offset voltage ¹ (at If=0A)	V _{of}	V _{REF} ¹							
Saturation output voltage	V _{o min/max}	V _{o min} ≤ 0.5V, 4.5V ≤ V _{o max}							
Output linearity ² (0A~If)	٤	≤ ±1% (at If)							
Power supply voltage	V _{cc}	5V ±2%							
Consumption current	lcc	≤ 15mA							
Response time ³	t _r	≤ 10µs (at di/dt = 100A / µs)							
Thermal drift of gain⁴	TcVo	≤ ± 2mV/°C ≤ ± 1.5mV/°C							
Thermal drift of offset	TcVof	≤ ± 2mV/°C ≤ ± 1.0mV/°C							
Hysteresis error (at If=0A→If→0A)	V _{OH}	≤ 8mV			≤ 4	mV		≤ 6mV	
Insulation voltage	V_{d}	AC2500V for 1minute (sensing current 0.5mA), inside of through hole ⇔ terminal							
Insulation resistance	R _{IS}	$\geq~500 M\Omega$ (at DC500V) , inside of through hole \Leftrightarrow terminal							
Ambient operation temperature	T _A	-10°C~+80°C							
Ambient storage tempera- ture	Ts	-15°C~+85°C							

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





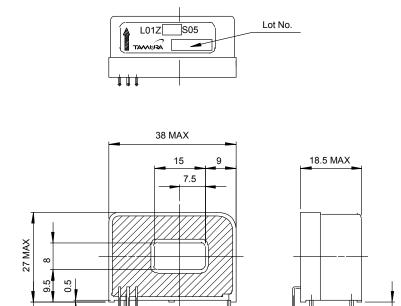




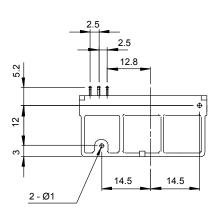


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Mechanical dimensions



Terminal No.



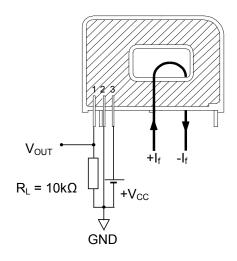
Terminal Number:

- 1. V_{OUT}
- 2. GND
- 3. +Vcc(+5V)

NOTES

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

Electrical connection diagram



Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
45g	50	200	4800

3 - 🗆 0.65



