

Hall Effect Current Sensors L03S***D15WM Series

Features:

- Open Loop type
- Panel mounting
- Molex connector
- Improved mounting
- 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



Specifications

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

Parameters	Symbol	L03S050 D15WM	L03S100 D15WM	L03S200 D15WM	L03S300 D15WM	L03S400 D15WM	L03S500 D15WM	L03S600 D15WM	L03S700 D15WM	L03S800 D15WM
Primary nominal current	I_f	50AT	100AT	200AT	300AT	400AT	500AT	600AT	700AT	800AT
Saturation current	I_{fmax}	$\geq \pm 150\text{AT}$	$\geq \pm 300\text{AT}$	$\geq \pm 600\text{AT}$	$\geq \pm 900\text{AT}$	$\geq \pm 1000\text{A}$				
Rated output voltage	V_o	$4\text{V} \pm 0.040\text{V}$ (at I_f)								
Offset voltage ¹ (at $I_f=0\text{A}$)	V_{of}	$\leq \pm 40\text{mV}$	$\leq \pm 30\text{mV}$							
Output linearity ² ($0\text{A} \sim I_f$)	ϵ_L	$\leq \pm 1\%$ (at I_f)								
Power supply voltage	V_{CC}	$\pm 15\text{V} \pm 5\%$								
Consumption current	I_{CC}	$\leq 20\text{mA}$								
Response time ³	t_r	$\leq 10\mu\text{s}$ (at $di/dt=100\text{A}/\mu\text{s}$)								
Thermal drift of gain ⁴	$TcVo$	$\leq \pm 0.1\%/^{\circ}\text{C}$								
Thermal drift of offset	$TcVof$	$\leq \pm 2\text{mV}/^{\circ}\text{C}$	$\leq \pm 1.0\text{mV}/^{\circ}\text{C}$							
Hysteresis error	V_{OH}	$\leq \pm 20\text{mV}$ (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	$-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$								
Ambient storage temperature	T_S	$-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$								

¹ After removal of core hysteresis — ² Without offset — ³ Time between 10% 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



Connector

Manufacturer	Part Number	Old Part Number
Molex	22-04-1041	5045-04A

Terminal number:

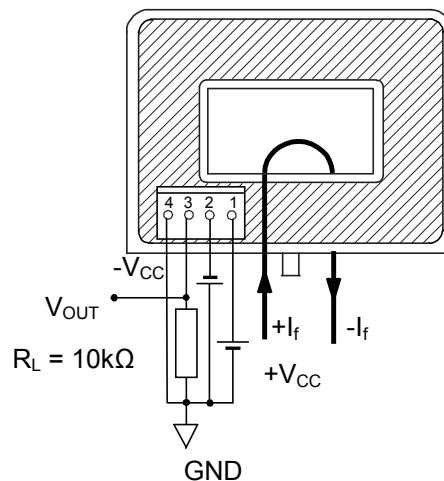
1. +Vcc(+15V)
2. -Vcc(-15V)
3. V_{OUT}
4. GND

NOTES

1. Unit is mm
2. Tolerance is 0.5mm



Electrical connection diagram



Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
51g	20	200	3600



Mouser Electronics

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