

Hall Effect Current Sensors L12P***D15 Series



Features:

- Open Loop type
- Printed circuit board mounting
- Bipolar power supply
- Extended measurement range
- Insulated plastic case according to UL94V0

Advantages:

- Excellent accuracy
- Very good linearity
- Low temperature drift
- No insertion loss
- High Immunity To External Interference
- Current overload capability

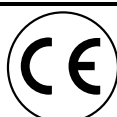
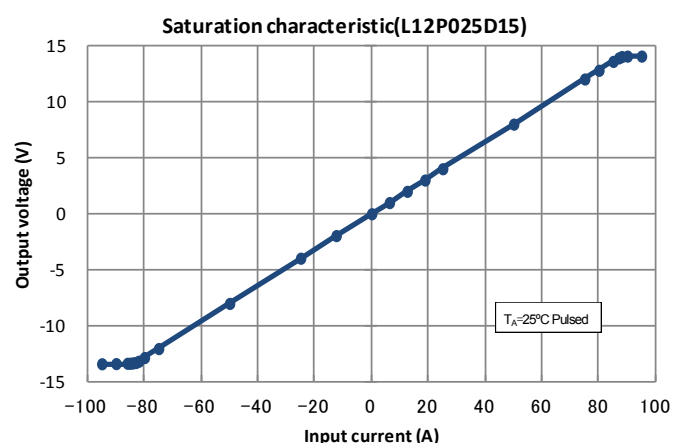
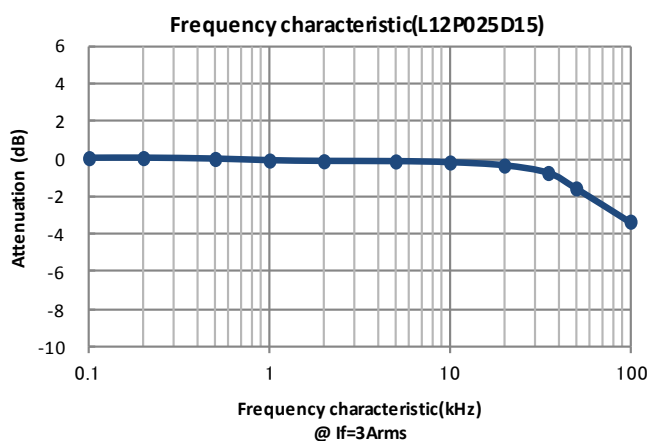
Specifications

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

Parameters	Symbol	L12P025D15
Primary nominal current	I_f	25A
Saturation current	I_{fmax}	$\geq \pm 75\text{A}$
Rated output voltage	V_o	$4\text{V} \pm 0.040\text{V}$ (at I_f)
Offset voltage ¹	V_{of}	$\leq \pm 0.040\text{V}$ (at $I_f=0\text{A}$)
Output linearity ² (0A~ I_f)	ϵ_L	$\leq \pm 1\%$ (at I_f)
Power supply voltage ³	V_{CC}	$\pm 12\text{V} \pm 5\% \sim \pm 15\text{V} \pm 5\%$
Consumption current	I_{CC}	$\leq \pm 15\text{mA}$
Response time ⁴	t_r	$\leq 3\mu\text{s}$ (at $di/dt = I_f / \mu\text{s}$)
Thermal drift of gain ⁵	$TcVo$	$\leq \pm 0.1\% / ^{\circ}\text{C}$
Thermal drift of offset	$TcVof$	$\leq \pm 3.0\text{mV} / ^{\circ}\text{C}$
Hysteresis error	V_{OH}	$\leq 25\text{mV}$ (at $I_f = 0\text{A} \rightarrow I_f \rightarrow 0\text{A}$)
Insulation voltage	V_d	AC 2500V for 1minute (sensing current 0.5mA), primary conductor \leftrightarrow terminal
Insulation resistance	R_{IS}	$\geq 500\text{M}\Omega$ (at DC500V), primary conductor \leftrightarrow terminal
Ambient operation temperature	T_A	$-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$
Ambient storage temperature	T_S	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

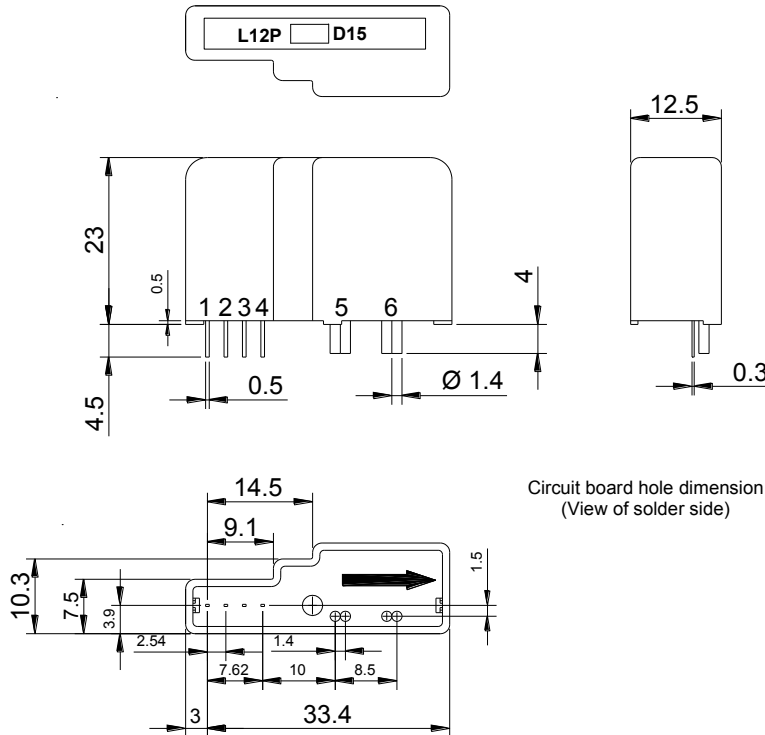
¹ After removal of core hysteresis-² Without offset -³ Maximum current is restricted by V_{CC} -⁴ Time between 10% input current full scale and 90% of sensor output full scale⁵ Without Thermal drift of offset

Electrical Performance



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Mechanical dimensions



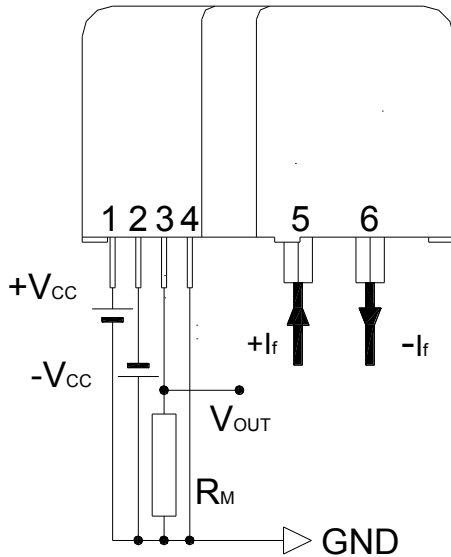
NOTES

1. Unit is mm
2. Tolerance is 0.5mm

Terminal number:

1. +V_{CC}(+15V)
2. -V_{CC}(-15V)
3. V_{OUT}
4. GND
5. Primary input current (+)
6. Primary input current (-)

Electrical connection diagram



Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
20g	50	500	7200

