

Hall Effect Current Sensors L03S***D15 Series



Features:

- Open Loop type
- Panel mounting
- Molex 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

Specifications

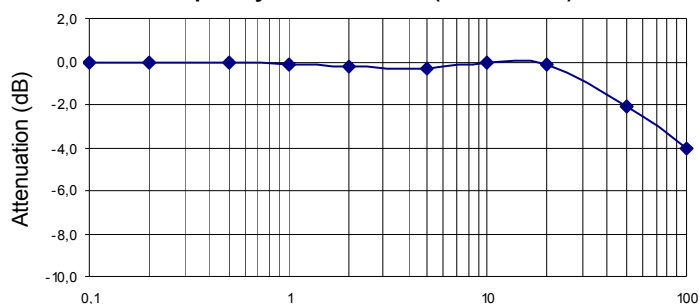
$T_A=25^{\circ}\text{C}$, $V_{CC}=\pm 15\text{V}$, $R_L=10\text{k}\Omega$

Parameters	Symbol	L03S050D15	L03S100D15	L03S200D15	L03S300D15	L03S400D15	L03S500D15	L03S600D15
Rated current	I _f	50AT	100AT	200AT	300AT	400AT	500AT	600AT
Maximum Current	I _{fmax}	±150AT	±300AT	±600AT	>±700AT			
Output Voltage	V _{OUT}	4V±40mV @ I _f						
Offset Voltage	V _{OE}	≤±40mV @ I _f = 0A	≤±30mV @ I _f = 0A					
Accuracy ¹	X	±1% @ I _f						
Output Linearity ¹	ε _L	≤±1% @ I _f						
Power Supply	V _{CC}	±15V±5%						
Consumption Current	I _C	< 12mA						
Response Time ²	t _r	< 5μs (@ di/dt=50A / μs)						
Output Temperature Characteristic ¹	TCV _{OUT}	≤±2mV/°C						
Offset Temperature Characteristic	TCV _{OE}	< ± 2mV/°C	< ± 1.0 mV/°C					
Hysteresis error	V _{OH}	±30mV (@ 0A ⇔ I _f)			±20mV (@ 0A ⇔ I _f)		±10mV (@ 0A ⇔ I _f)	
Withstand Voltage	V _d	AC2500V for 1minute (sensing current 0.5mA), inside of through hole ⇔ terminal						
Insulation Resistance	R _{IS}	> 500MΩ (500V DC), inside of through hole ⇔ terminal						
Frequency Bandwidth ³	f	DC .. 50kHz						
Operating Temperature	T _A	-20°C~+80°C						
Storage Temperature	T _S	-20°C~+85°C						

¹ Without offset — ² Time between 10% input current full scale and 90% of sensor output full scale — ³ Small signal only to avoid excessive heating of magnetic core

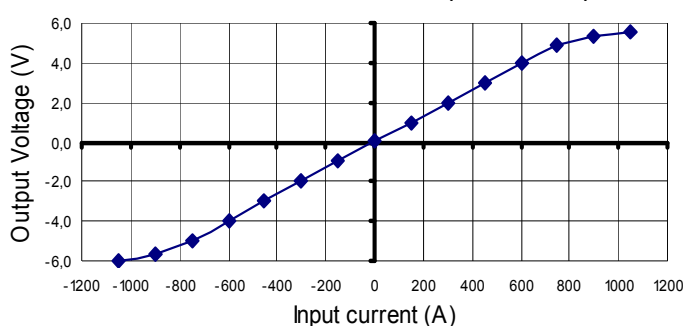
Electrical Performances

Frequency Characteristic (L03S600D15)

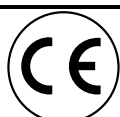


If frequency (kHz) @ $I_f=6.0\text{Arms}$

Saturation Characteristic (L03S600D15)

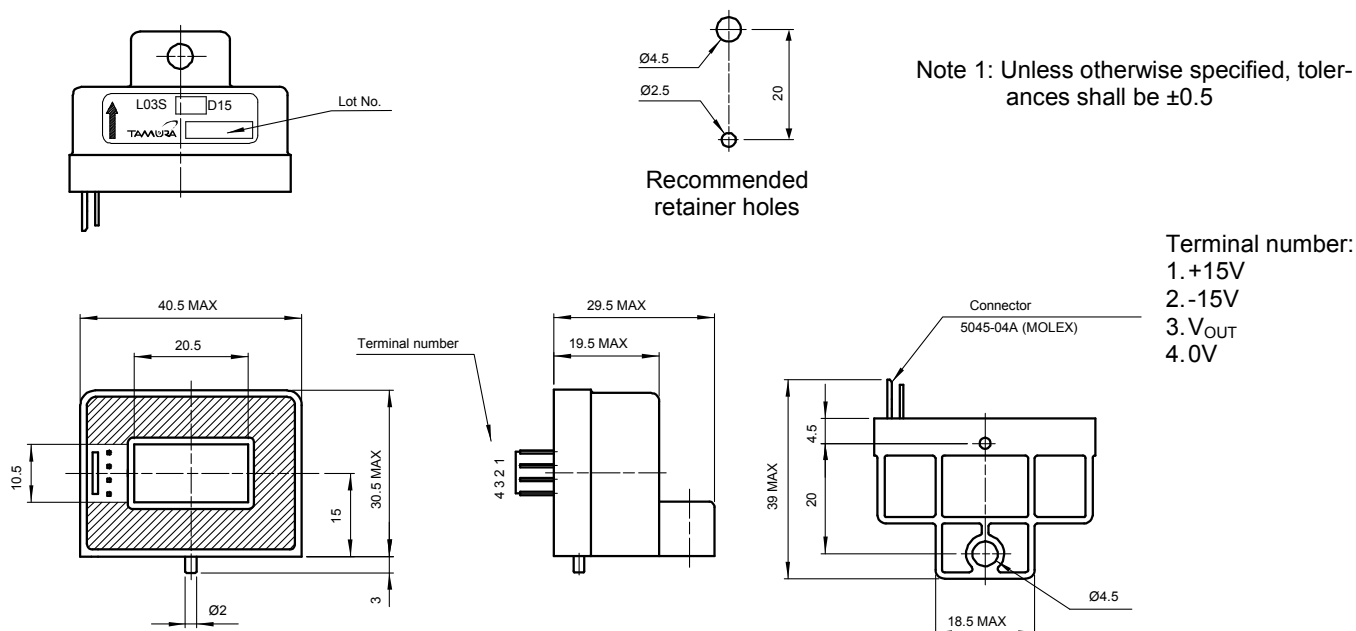


Input current (A)

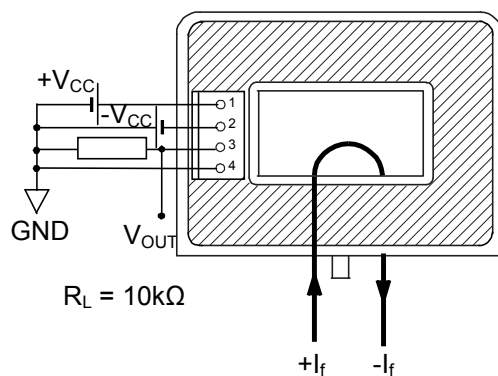


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Mechanical dimensions in mm



Electrical connection diagram



Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
46g	50	200	2400