



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Hall Effect Current Sensor S27S300D15YM



Features:

- Closed Loop type
- Current or voltage output
- Conversion ratio $K = 1:2000$
- Panel mounting with Molex connector
- Large aperture
- Insulated plastic case according to UL94V0

Advantages:

- Excellent accuracy and linearity
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity to external interferences
- Optimised response time
- Current overload capability

Specifications

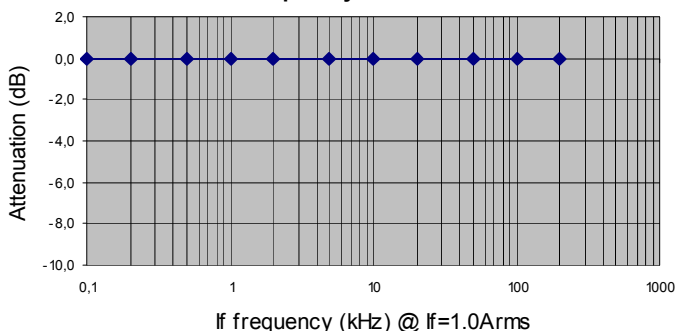
$T_A=25^\circ\text{C}$, $V_{CC}=\pm 15\text{V}$

Parameters	Symbol	S27S300D15YM	
Rated Current	I_f	300AT	
Maximum Current ¹	I_{fmax}	$\pm 500\text{A}$ (@ $R_M \leq 5\Omega$)	
$I_f = \pm A_{DC}$ Measuring resistance @ 85°C	R_M	$\pm 12\text{V}$	300A : $0\Omega \sim 39\Omega$ 500A : $0\Omega \sim 12\Omega$
		$\pm 15\text{V}$	300A : $0\Omega \sim 58\Omega$ 500A : $0\Omega \sim 22\Omega$
		$\pm 20\text{V}$	300A : $15\Omega \sim 93\Omega$ 500A : $15\Omega \sim 45\Omega$
Conversion Ratio	K	1 : 2000	
Output Current	I_{OUT}	$\pm 150\text{mA}$	
Offset Current	I_{OE}	$\pm 0.2\text{mA}$ @ $I_f = 0\text{A}$	
Output Current Accuracy	X	$I_{OUT} \pm 0.4\%$	
Output Linearity	ϵ_L	$\pm 0.1\%$ @ I_f	
Supply Voltage ²	V_{CC}	$\pm 12\text{V} \sim \pm 20\text{V}$	
Consumption Current	I_{CC}	$\pm 20\text{mA}$ (Output Current is not included)	
Response Time ³	t_r	$< 1.0\mu\text{s}$ @ $di/dt = 100\text{A} / \mu\text{s}$	
Output Temperature Characteristic	TCI_{OUT}	$\pm 0.01\% / ^\circ\text{C}$ @ I_f	
Offset Temperature Characteristic ⁴	TCI_{OE}	$< \pm 0.5\text{mA}$ max. @ $I_f = 0\text{A}$ ($-40^\circ\text{C} \sim +85^\circ\text{C}$)	
Hysteresis allowance	I_{OH}	$\leq 0.08\text{mA}$ ($0\text{A} \Leftrightarrow 3 \times I_f$)	
Insulation Withstanding	V_d	AC 4000V, for 1minute (sensing current 0.5mA), inside of aperture \Leftrightarrow terminals	
Insulation Resistance	R_{IS}	$> 500\text{M}\Omega$ (@ DC 500V) inside of aperture \Leftrightarrow terminals	
Frequency Bandwidth	f	DC .. 100 kHz	
Secondary Coil Resistance	R_S	25 Ω @ $T_A = 70^\circ\text{C}$ 28 Ω @ $T_A = 85^\circ\text{C}$	
Operating Temperature	T_A	$-40^\circ\text{C} \sim +85^\circ\text{C}$	
Storage Temperature	T_S	$-40^\circ\text{C} \sim +90^\circ\text{C}$	

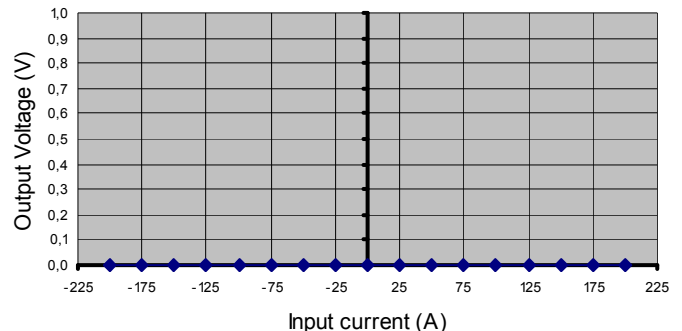
¹ @ $V_{CC}=\pm 15\text{V}$ for 10 Seconds — ² Rated Current is restricted by V_{CC} — ³ Time between 10% input current full scale and 90% of sensor output full scale — ⁴ $< \pm 0.3\text{mA}$ max. @ $I_f = 0\text{A}$ ($-10^\circ\text{C} \sim +70^\circ\text{C}$)

Electrical Performance data not yet available

Frequency Characteristic

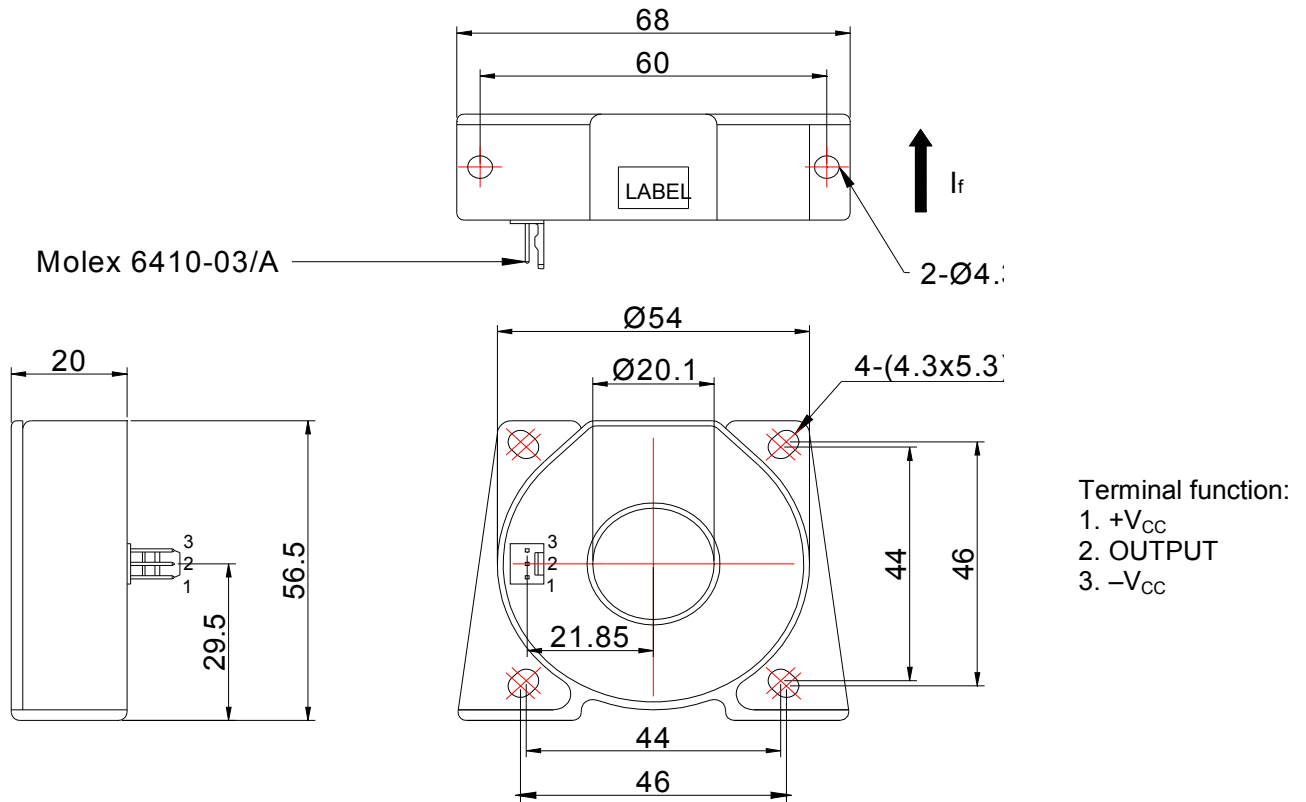


Saturation Characteristic ($R_M=???\Omega$)

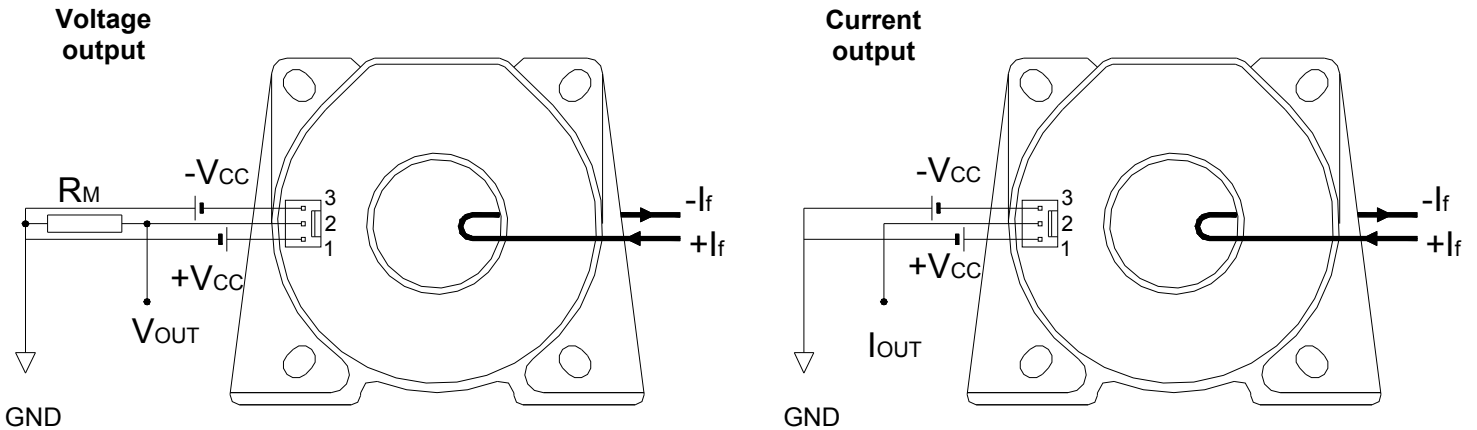


Hall Effect Current Sensor S27S300D15YM

Mechanical dimensions in mm



Electrical connection diagram



Package & Weight Information

Weight	Pcs/box	Pcs/carton	Pcs/pallet
90g	25	75	