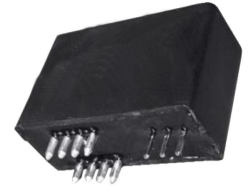


MCSM025AY Hall-effect Current Sensor Series

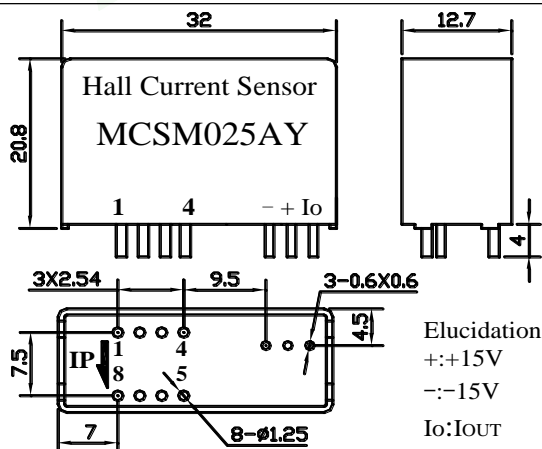
Closed loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.



Electrical characteristics		MCSM025AY		
I_{PN}	Primary nominal input current	25		A
I_P	Measuring range of primary current	0~±36		A
I_{SN}	Secondary nominal output current	25		mA
K_N	Conversion ratio	1-2-3-4:1000		
R_M	Measuring resistance($V_C = \pm 15V$)	$I_P = \pm 25A$ 54~360	$I_P = \pm 36A$ 68~190	R_M
V_C	Supply voltage	±12~±15(±5%)		V
I_C	Current consumption	$V_C = \pm 15V$	10+ I_S	mA
V_D	Insulation voltage	AC/50Hz/1min	2.5	kV
ε_L	Linearity	<0.2		%FS
X	Accuracy	$T_A = 25^\circ C$ $V_C = \pm 15V$	<±0.7	%
I_0	Zero offset current	$T_A = 25^\circ C$	<±0.15	mA
I_{OM}	Residual current	$I_P \rightarrow 0$	<±0.15	mA
I_{OT}	Thermal drift of I_0	$I_P = 0$ $T_A = -25 \sim +70^\circ C$	<±0.5	mA
T_R	Response time	<1		μs
f	Frequency bandwidth(-1dB)	DC~100		kHz
T_A	Ambient operating temperature	-25~+70		°C
T_S	Ambient storage temperature	-40~+100		°C
R_P	Primary coil resistance	$T_A = 25^\circ C$	≤1.25	mΩ
R_S	Secondary coil resistance	$T_A = 70^\circ C$	40	Ω
R_{IS}	Isolation resistance	$T_A = 25^\circ C$	≥1500	MΩ
	Standard	Q/3201CHGL02-2007		

Dimensions of drawing (mm)

Connection



Conversion ratio	$I_{PN}(A)$	$I_P(A)$	$I_{SN}(mA)$	Primary connection
1:1000	25	36	25	
2:1000	12	18	24	
3:1000	8	12	24	
4:1000	6	9	24	

Remarks

- Incorrect connection may lead to the damage of the sensor.
- I_{SN} is positive when the I_P flows in the direction of the arrow.