

Product Data sheet : Hall Effect Current Sensor - HA025T01-UR

Date : 08.07.2013

Rev : 01

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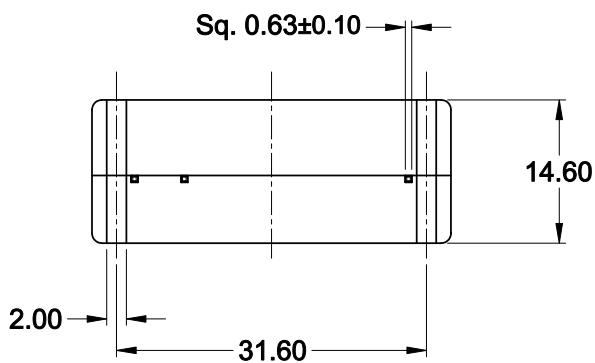
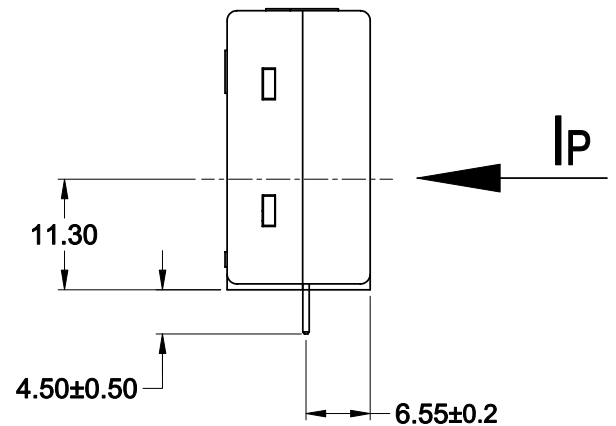
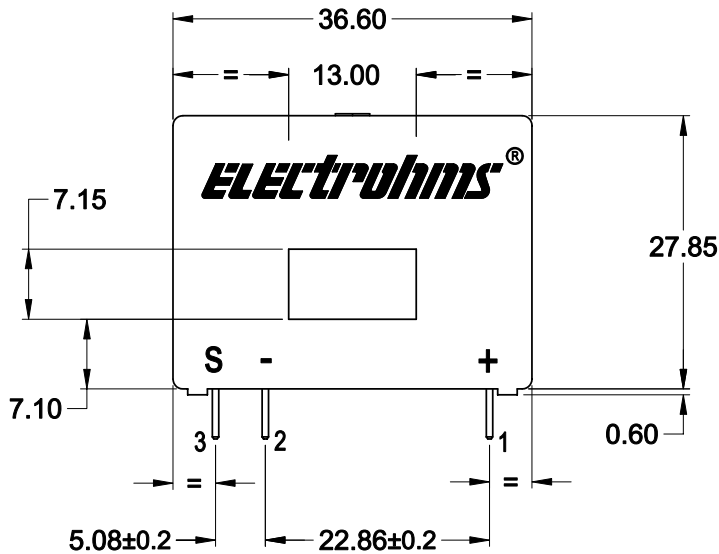
Customer: Standard

Customer's part No.: ---

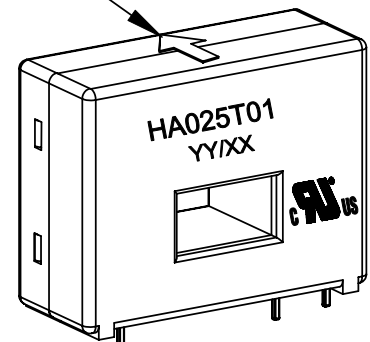
Pb RoHS Compliant



● MECHANICAL DIMENSIONS



Primary current direction



● APPLICATION :

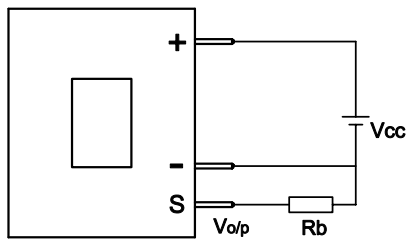
Used for measurement of electric current, AC, DC, Pulsed in electrical & electronic equipment.

● FEATURES :

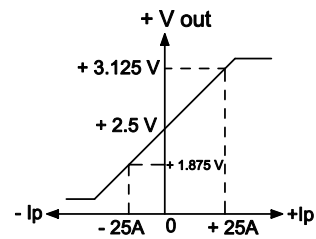
- Closed loop current sensor.
- Voltage output.
- PCB Mountable.
- UL File no. : E356273

GENERAL TOL. ±0.5 mm	
ALL DIMENSIONS ARE IN 'mm'	SCALE -NTS

● CONNECTION DIAGRAM



● INPUT & OUTPUT CHARACTERISTICS



+ Ip Indicates primary current flowing in the direction of the arrow

● SPECIFICATIONS @ 25° C **

PARAMETERS	VALUES	UNITS
Primary Current Nominal (Ipn)	25	Arms
Primary current, range (Ip)	0 to +/- 56	A
Burden Resistance (Rb)	2000 (min.)	Ω
Voltage output @ Ipn = 0 (Vout)	2.50 ± 0.025	V
Voltage output per ampere of Ip	±25	mV / A
Voltage output @ Ipn	2.5 V +/- 0.625	V
Supply Voltage (Vcc)	+5.0 (See note 2)	V
Current consumption @ +5V (Ic) (see note 1)	12 +Io/p +(Vout / Rb) (Typical)	mA
Accuracy	+/- 0.65	%
Linearity	< 0.20	%
Temperature coefficient of Vout	100	ppm/k
Reaction time 10% Ipn step	< 0.1	μs
Response time 90% of Ipn step	< 0.4	μs
Frequency bandwidth @ -1 dB (fbw)	200	kHz
Secondary coil resistance	35.0 Typical	Ω
Dielectric strength Primary to o/p terminals	2.5	kVrms
Operating Temperature Range	- 40 to + 85	°C
Storage Temperature	- 40 to + 85	°C
Weight	22 (Typ.)	g

** Specifications subject to change.

Note :

1. $I_{o/p} = (I_p / N_s) = (25 / 1080) = 0.02315 \text{ A (23.15 mA)}$
2. Tolerance ±5%
3. Maximum surrounding air temperature 85°C.
4. Pollution degree PD2
5. Over voltage category OV 3