

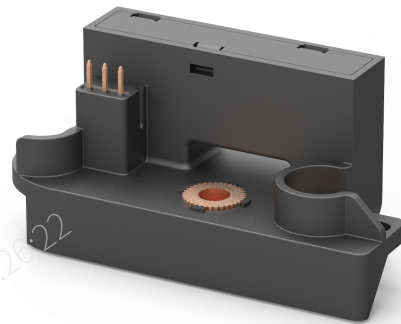


Description

For the electronic measurement of currents: DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit and the secondary circuit.

Features

- ◆ Open loop transducer using the Hall effect
- ◆ Low voltage application
- ◆ Unipolar +5VDC power supply
- ◆ Primary current measuring range up to $\pm 200_ \pm 1200A$
- ◆ Operating temperature range:
 $-40^{\circ}C < T_A < +125^{\circ}C$
- ◆ Output voltage: fully ratio-metric(gain and offset)



$$I_{PN} = \pm 200_ \pm 1200A$$

Advantages

- ◆ High accuracy
- ◆ Excellent linearity
- ◆ Low temperature drift
- ◆ No insertion losses
- ◆ Wide frequency bandwidth
- ◆ Very fast response time

Automotive Applications

- ◆ Starter Generators
- ◆ Inverters
- ◆ HEV applications
- ◆ EV application
- ◆ DC/DC converter.

TYPES OF PRODUCTS		
Type	Primary nominal current I_{PN} (A)	Primary current measuring range I_P (A)
BST6-200IOV1HA	200	± 200
BST6-400IOV1HA	400	± 400
BST6-500IOV1HA	500	± 500
BST6-600IOV1HA	600	± 600
BST6-800IOV1HA	800	± 800
BST6-900IOV1HA	900	± 900
BST6-1200IOV1HA	1200	± 1200



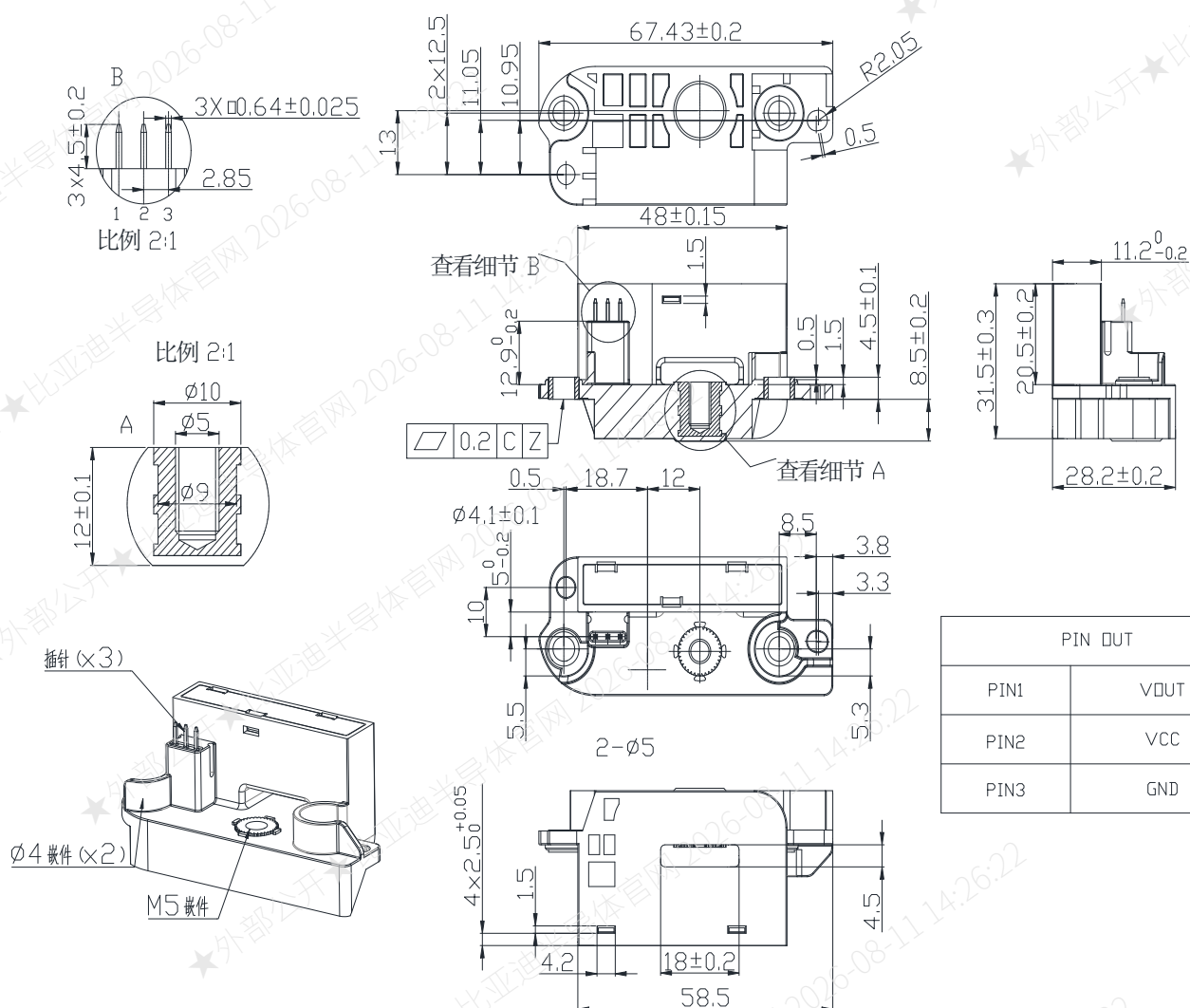
Parameters Table

PARAMETERS	SYMBOL	UNIT	VALUE			CONDITIONS
			Min.	Typ.	Max.	
Electrical data						
Supply voltage	V _{cc}	V	4.75	5	5.25	
Current consumption	I _{cc}	mA	-	12	16	@T _A = 25°C
Output load lesistance	R _L	kΩ	4.7	-	-	@V _{OUT} to GND
Output load capacitance	C _L	nF	-	1	10	@V _{OUT} to GND
Performance data						
Output voltage	V _{OUT}	V	V _{OUT} =V _{cc} /5×(2.5+2/I _{pn} ×I _p)			@T _A = 25°C
Output linearity	ε _L	%	-1	-	1	@T _A = 25°C
Accuracy @25°C	X	%	-1	-	1	@T _A = 25°C I _p ≤900A
		%	-1.5	-	1.5	@T _A = 25°C I _p ≤1200A
Quiescent output voltage ⁽¹⁾	V _{OUTQ}	V	2.5V±10mV			@T _A = 25°C @V _{cc} =5V
Electrical offset voltage	V _{OE}	mV	-10	-	10	@T _A = 25°C @V _{cc} =5V
Magnetic offset voltage	V _{OM}	mV	-3	-	3	@T _A = 25°C @V _{cc} =5V
Average temperature coefficient of V _{OE}	TCV _{OE AV}	mV/°C	-0.05		0.05	
Average temperature coefficient of G	TCG _{AV}	%/°C	-0.03		0.03	
Output Bandwidth	BW	kHz	50	-	-	@Small signal -3dB
Response time	t _r	μS	-	-	8	
Rms voltage isolation test	V _d	kV	-	-	3	@AC 50Hz 1Min
General data						
Ambient operating temperature	T _A	°C	-40~+125			
Ambient storage temperature	T _S	°C	-40~+125			

Notes:

(1) The indicated offset voltage is the one after the core hysteresis is removed.

Dimensions BST6-IOV1HA (in mm. 1 mm = 0.0394 inch)



◆ Instructions of use

1. When the test current passes through the sensors, you can get the size of the output voltage. (Warning: wrong connection may lead to sensors damage).
2. Based on user needs, the output range of the sensors can be appropriately regulated.
3. According to user needs, different rated input currents and output voltages of the sensors can be customized.



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