Description

BST2-IOV2MA are close loop Hall effect current/voltage sensors that accurately measure DC and AC currents/voltages and provide electrical isolation between the current/voltage carrying conductor and the output of the sensor.

Features

- Fast Response
- Small Size, Low Cost
- High Overload Capacity
- Moisture proof, Shockproof
- Low Power of Measuring Resistance
- Measures DC, AC and pulsed currents/voltages

Advantages

- Very good linearity
- Excellent accuracy
- Low temperature drift
- Optimized response time
- No insertion losses
- High immunity against external interference
- Excellent performance and price

Industrial applications

- Variable speed drivers for motors
- Welding Equipment
- Power supply Equipment
- Measure and control system
- Over current protection
- Protection of power semiconductors

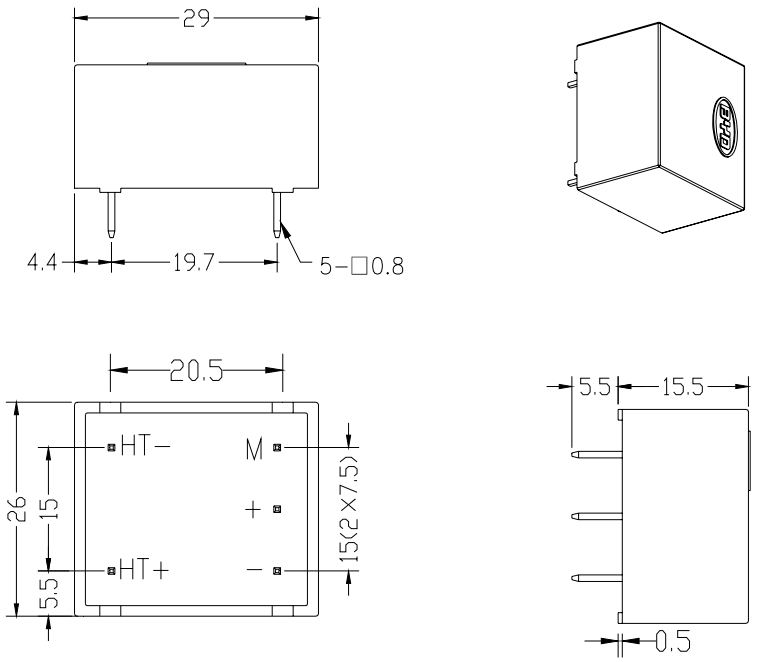
TYPES OF PRODUCTS

Type	Primary nominal current r. m. s I_{PN} (mA)	Primary current measuring range I_P (mA)	Measuring resistance R_M (Ω)
BST2-5IOV2MA	5	5	0~420
		7.5	50~220
BST2-10IOV2MA	10	10	0~420
		15	50~220

Parameters Table

PARAMETERS	SYMBOL	UNIT	VALUE	CONDITIONS
Electrical data				
Supply voltage(±5%)	V_C	V	±15	
Normal current	I_{PN}	mA	±5	BST2-5IOV2MA
			±10	BST2-10IOV2MA
Second normal R.M.S current	I_S	mA	±25	
Voltage input limit	U_N	V	1100	1100Vrms or DC MAX
Current consumption	I_C	mA	10mA+ I_s	
Measure resistance	R_m	Ω	Refer to table1	BST2-5IOV2MA BST2-10IOV2MA
Conversion ratio	K_N		5000:1000	BST2-5IOV2MA
			2500:1000	BST2-10IOV2MA
R. m. s voltage for AC isolation test	V_d	KV	5	@50Hz, 1 min
Accuracy - Dynamic performance data				
Linearity	ε_L	%	<±0.2	
Accuracy	X_G	%	<±0.8	@ I_{PN}, T_A = 25°C
Offset current	I_O	mA	<±0.15	@ I_P = 0,T_A = 25°C
Thermal drift of Io	I_{OT}	mA	<±0.25	@ I_P = 0, 0°C～+85°C
Primary internal input resistance	R_{SI}	Ω	630	BST2-5IOV2MA
			273	BST2-10IOV2MA
Response time	t_r	μS	<30	
General data				
Ambient operating temperature	T_A	℃	-40 ~ +85	
Ambient storage temperature	T_S	℃	-40 ~ +125	
Secondary coil resistance	R_{SO}	Ω	52	@ T_A =25°C
Package	Flame retardant plastic case, UL94-V0			

Dimensions BST2-IOV2MA (in mm. 1 mm = 0.0394 inch)

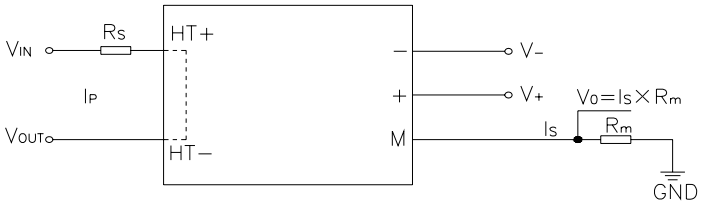


Connection schematic

I_P is primary current(input)

I_S is second current(output)

R_M is measure resistance



$I_P=(V_{IN}-V_{OUT})/(R_S+630)$ BST2-5IOV2MA

$I_P=(V_{IN}-V_{OUT})/(R_S+273)$ BST2-10IOV2MA

Instructions of use

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

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