

DATA SHEET Hall Effect Current Sensor



PN: BJHCS151-104/204

IPN = 25A - 50A

Features

Closed loop

- Supply voltage : ±15V DC
- Small PCB mounting

- High accuracy
- Current output

Can be customized

- Very good linearity
- Low power consumption
- Good over-current capability

ApplicationsFrequency

- Frequency drive control home appliances
- Solar power management system
- Inverter applications
- Uninterruptible power supplies (UPS)
- Current monitoring





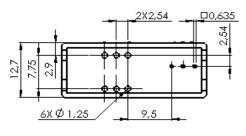
ELECTRICAL DATA					
BJHCS-151	104	204			
Nominal rms current I _{PN} (A)	25	50			
Sensed current range I _{PM} (A)	± 55	± 120			
Measuring resistance $R_M(\Omega)$ wiht $V_C = \pm 15 \text{ V}$	270 to 730	54 to 250			
Coil turns ratio K (P ^{ry} :S ^{ry})	1 - 2 - 3 : 2000	1 - 2 - 3 - 4 : 2000			
Secondary coil resistance (Ω)	180				
Nominal analog output current I _{SN} (mA)	12,5	25			
Static current consuption I _{C0} (mA)	≤ 15				
Supply voltage V _C (Vdc)	±15	. ±5%			

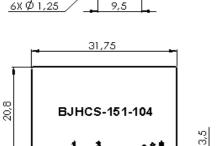
ACCURACY DYNAMIC PERFO	ORMANCI	GENERAL & ISOLATION CHARACTERISTICS			
Accuracy X _G @ I _{PN} , T=25℃	± 0,5%	%	Operating temperature	-40 to +85	${\mathbb C}$
Zero offset Current Io @ I _P =0, T=25℃	≤ ± 0,2	mA	Storage temperature	-40 to +125	C
Zero current drift @ - 40℃ to 85℃	≤ ± 0,5	mA	Weight	18	g
Linearity error ϵ_L	≤ 0,1	% FS	Insulation voltage (50Hz, 1mn)	5	KV
di/dt accurately followed	> 50	A/µs			
Response time tr	≤ 1	μs			
Bandwidth (- 3db)	DC to 100	kHz			

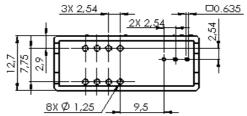


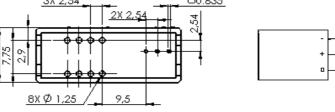


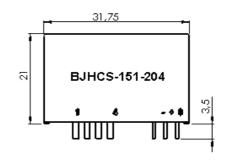
DIMENSIONS

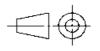












+15V

WIRING DIAGRAM																
Number of Primary turns		rent I _{PN} A)	Peak (Output Current I _{SN} (mA)		rrent Output Current I _{SN} (mA)		nary pin							
tarrio	104	204	104	204	104	204	BJSH-15	51-104 & 204								
1	25	50	55	90	12,5	12,5 25	6 O O 4 Ou	8 O O 5 Out								
					.=,5	,	In 1 O———————————————————————————————————	In 1 O—O—O—O 4								
2	12	24	27	45	12 24	45 12	6 O O 4 Out	8 O O 5 Ou								
_	12	21	21	10		n 1 O 3	In 1 O—O O—O 4									
3	0	16	18	30	12	2 24	6 O O O 4 Out	8 O O O 5 Out								
3	8	10	10	30	12	12	12	12	12	12	12	12	12 24	12 24	In 1 O O 3	In 1 O O O O 4
4	6	12	13	22	12	24		8 Q Q Q O 5 Out								
4	6 12) 12 13 22	12 24		In 1 O O O 4											

MECHANICAL CHARACTERISTICS				
General tolerance	± 0,2 mm			
Primary pins	6 or 8 x Ø 1,25 mm			
Terminal connection	3 x 0,635*0,635			

Cautions:

Do respect the wiring diagram in accordance whith the current value and its direction.

WARNING: Incorrect wiring may cause damage to the sensor.



Tech Power electronics