DATA SHEET
Hall Effect Current Sensor

PN : BJHCS-LSP | **IPN = 20A - 25A**

Features

- **Closed loop**
- **High accuracy**
- Very good linearity
- Low power consumption
- Good over-current capability
- **Supply voltage : +5 V DC**
- **Voltage output**
- **Small PCB mounting**
- **Can be customized**

Applications

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

ELECTRICAL DATA

BJHVS-LSP-…	20	25
Maximum current I_P (A)	20	25
Measuring range I_{PM} (A)	±20	±25
Sampling resistor (Ω)	50	100
Secondary coil turns (T_S)	1000	1250
Rated output voltage V_O (V)	$V_{OE} \pm (I_P/I_{PN})*2$	
Supply voltage V_C (Vdc)	$+5^{\pm 5\%}$	

ACCURACY DYNAMIC PERFORMANCE

Zero offset voltage V_{OE} @ IP=0, T=25℃	$2{,}5^{\pm 0.015}$	V
Offset voltage drift @ - 40℃ to 85℃	≤ ± 0,5	mV/℃
Accuracy	± 0,7	%
Linearity error ε_L	≤ 0,1	% FS
di/dt accurately followed	> 50	A/µs
Response time tr	≤ 1	µs
Bandwith (- 1db)	DC to 200	kHz

GENERAL & ISOLATION CHARACTERISTICS

Operating temperature	-40 to +85	℃
Storage temperature	-40 to +126	℃
Weight	10	g
Insulation voltage (50 Hz, 1min)	3	KV
Impulse withstand voltage (1,2/50µs)	>8	KV
Creepage distance (shell)	15,4	mm

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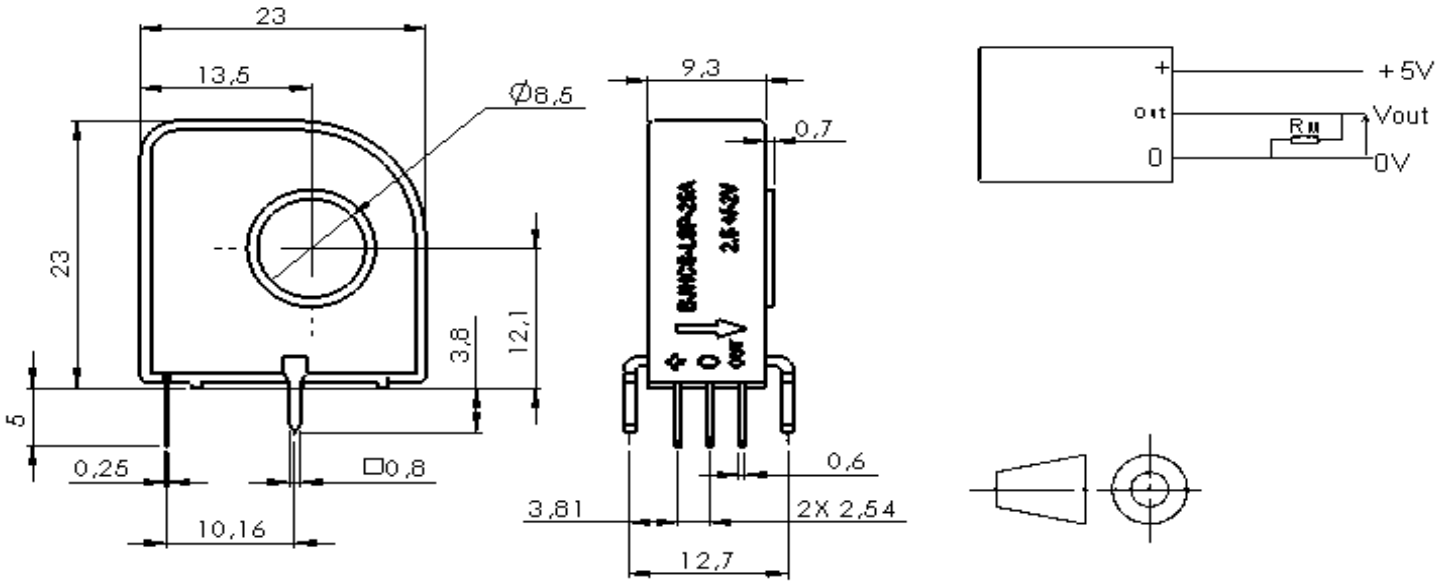
DIMENSIONS



MECHANICAL CARACTERISTICS

General tolerance	± 0,5 mm
Through hole dimension	∅ 8,5 mm
Fixed tube feet	0,8 mm x 0,9 mm
Terminal connection	3 pins 0,25 mm x 0,5 mm

Cautions :

- I_S is positive when I_P flows in accordance whith the arrow direction (see the side of the sensor);
- Primary conductor temperature should not exceed 100 ℃;
- Best dynamic performances (di/dt and response time) are achieved with a single electrical conductor completely filling the through hole;
- For the required connection circuit, see the drawing above.

WARNING : Incorrect wiring may cause damage to the sensor.