DATA SHEET
Hall Effect Voltage Sensor

PN : BJHVS5-25A/025A

VPN = 1200V - 500V

Features

- Closed loop
- High accuracy
- Very good linearity
- Low response time
- Low temperature drift
- High immunity to external interferences
- Supply voltage : ±15V DC
- Current output
- PCB mounting
- Can be customized

Applications

- AC/DC variable speed motor driver
- Battery applications
- Uninterruptible power supplies (UPS)
- Power supplies for welding applications

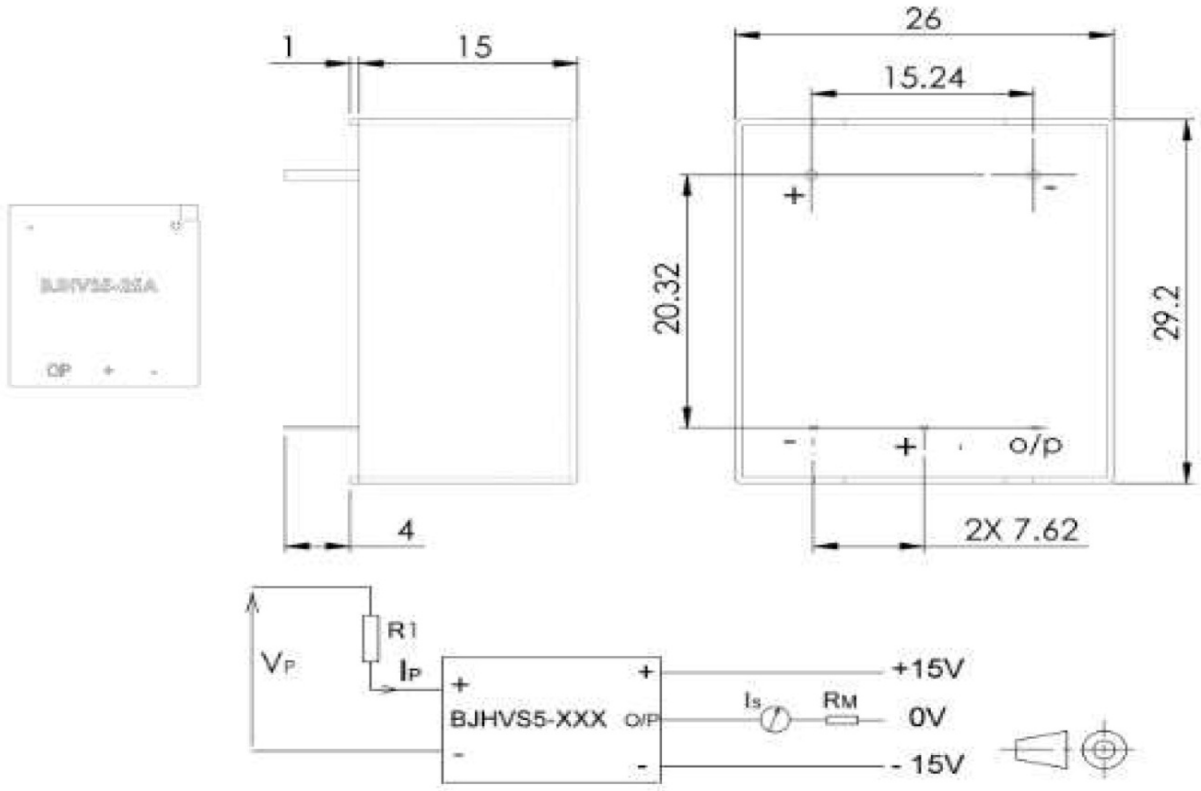
ELECTRICAL DATA

BJHVS-…			5-25A		025A	
Measuring voltage V_{PN} (V)			**5-1200**		**10-500**	
Nominal rms current I_{PN} (mA)			5		10	
Sensed current range I_{PM} (mA)			±7		±14	
Measuring resistance with V_C= ±15V	@ ± I_P (mA)		*5*		*10*	
	R_M min(Ω) =	R_M max(Ω) =	*100*	*350*	100	350
	@ ± I_P max (A)		*7*		*14*	
	R_M min(Ω) =	R_M max(Ω) =	*100*	*190*	100	190
Coil turns ratio K (P^{ry}:S^{ry})			5000:1000		2500:1000	
Primary coil resistance (Ω)			650		170	
Secondary coil resistance (Ω)			60		60	
Nominal output rms current I_{SN} (mA)			25			
Supply voltage V_C (Vdc)			±12..±15 ± 5%			
Current consumption I_C (mA)			15+ I_S			

ACCURACY DYNAMIC PERFORMANCE		
Overall accuracy X_G @ V_{PN}, T=25°C	± 0,5	%
Offset current I_0 @ I_P=0, T= 25°C	≤ ± 0,1	mA
I_0 Thermal drift @ -40 to +85 °C	≤ ± 0,5	mA/°C
Linearity error ε_L	< 0,2	% FS
Response time tr	< 40	µs

GENERAL & ISOLATION CHARACTERISTICS		
Operating temperature	-40 to +85	°C
Storage temperature	-40 to +125	°C
Weight (25A/025A)	27/22	g
Insulation voltage (50Hz, 1mn)	2,5	KV
Creepage distance (shell)	19,5	mm

DIMENSIONS



MECHANICAL CARACTERISTICS

General tolerance	± 0,2 mm
Fastening and connection of primary	2 pins 0,8 mm x 0,8 mm
Terminal connection	3 pins 0,8 mm x 0,8 mm

Cautions :

- The choice of R1 is important, the best accuracy of the sensor is achieve when the current flowing through R1 is near the rated primary current.
- Considering the resistance of primary coil (compared with R1 and temperature difference kept as low as possible)
- Do respect electrical isolation within measure range.

WARNING : Incorrect wiring may cause damage to the sensor.