TBC-BPR565 Series Closed Loop Mode Hall Effect Current Sensor

TBC-BPR565 Series current sensor is a Closed loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit, It is used for precision measurement of DC, AC and pulse current.

Electrical data (Ta=25℃±5℃,RL=10KΩ,CL=4700PF)

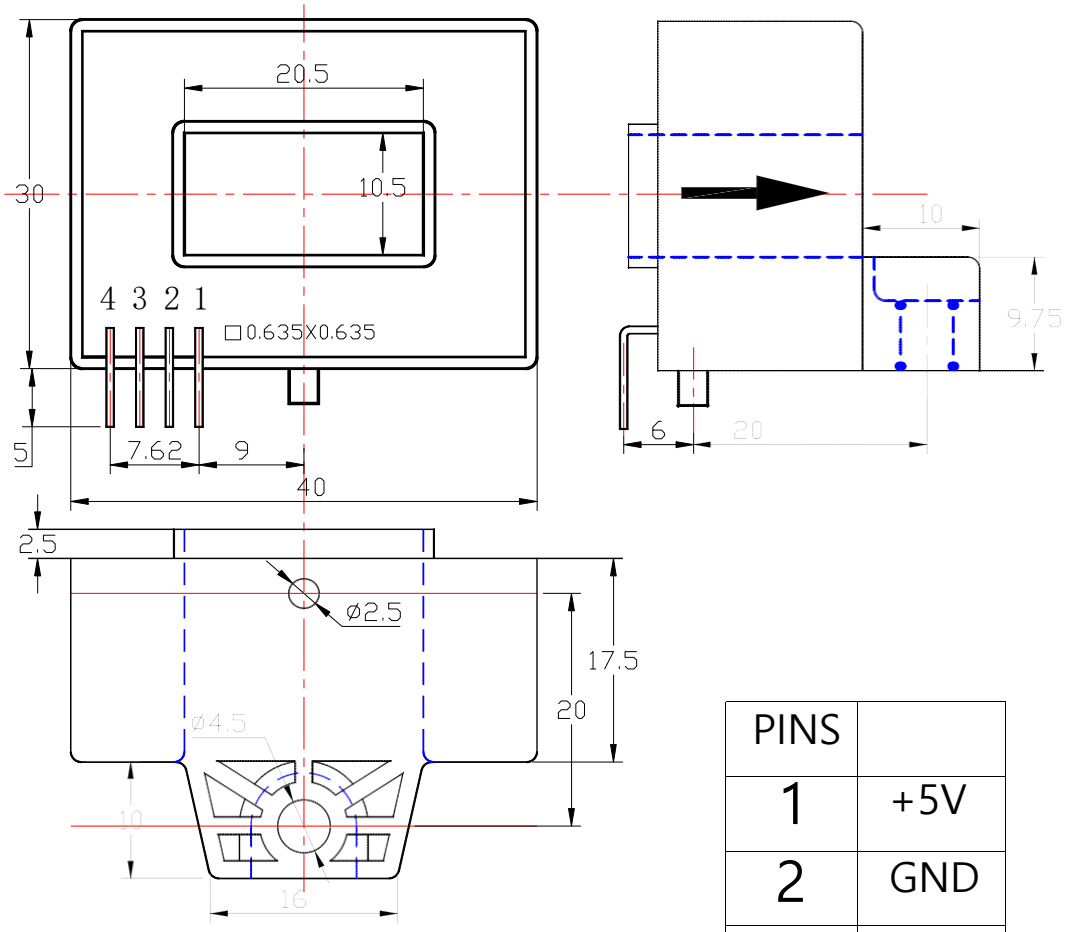
Type / Parameter	TBC-50BPR565	TBC-75BPR565	TBC-100BPR565	TBC150BPR565	TBC200BPR565	Unit
Rated input (Ipn)	±50	±75	±100	±150	±200	A
Measure range (Ip)	±150	±225	±300	±360	±360	A
Turns ratio (Np/Ns))	1:960	1:1440	1:1600	1:1800	1:1920	T
Internal resister	3.0±0.1%	3.0±0.1%	2.5±0.1%	1.875±0.1%	1.5±0.1%	Ω
Rated output	@Ip=±Ipn ±0.625±0.5%					V
Supply voltage	+5.0 ±2%					V
Power consumption	≤15+IpX(Np/Ns)					mA
Reference voltage	+2.5±0.2% (Output)					V
Vref internal resistor	200					Ω
Vref external range	1.0-2.75(Input)					V
Zero voltage	@Ip=0 +2.5±0.2%					V
Magnetic Offset voltage	≤±3.0					mV
Offset drift	≤±0.05					mV/℃
output drift	≤±0.05					mV/℃
Linearity	@Ip=0-±Ipn ≤0.1					%FS
Response time	@50A/μS,10%-90% ≤0.5					μs
Band-width	@-3dB DC-200					KHz
Galvanic isolation	@ 50Hz, AC,1min 2.5					KV

Applications

- Variable speed drives
- Welding machine
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Electrochemical

Mechanical dimension (for reference only)

BPR565



PINS	
1	+5V
2	GND
3	OUT
4	VR

Remarks :

1. All dimensions are in mm.
2. General tolerance ±1mm

Directions for use

1. When the current will be measured goes through a sensor, the voltage will be measured at the output end. (Note: The false wiring may result in the damage of the sensor)
2. Customs can adjust Output amplitude of the sensor by needs.
3. Custom design in the different rated input current and the output voltage are available.

Standards

UL94-V0

EN60947-1:2004

IEC60950-1:2001

EN50178:1998

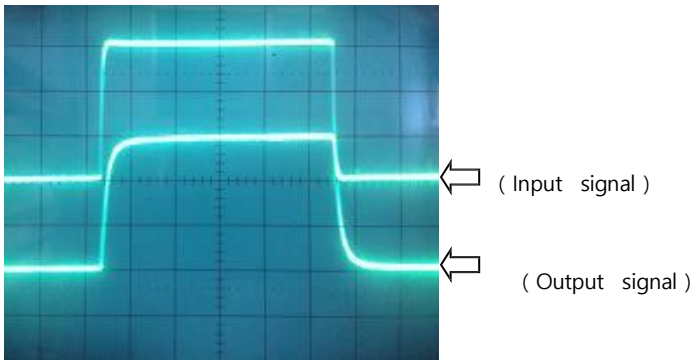
SJ 20790-2000

General data

	Value	Unit	Symbol
Operating temperature	-40 to +85	ºC	TA
Storage temperature	-40 to +125	ºC	TS
Mass(approx)	40	g	M

Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise