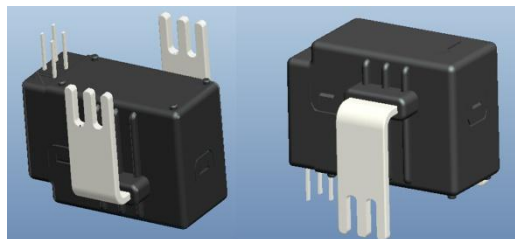


TBC-LSR508 系列闭环型霍尔电流传感器

TBC-LSR508 Series Closed Loop Mode Hall Effect Current Sensor



TBC-LSR508 系列闭环电流传感器的初、次级之间是绝缘的，具有超强抗干扰能力；用于测量直流、交流和脉动电流。

TBC-LSR508 series current sensor is closed loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It has strong anti-jamming ability and provides accurate electronic measurement of DC, AC or pulsed currents.

电参数 Electrical data (Ta=25℃±5℃, RL=10KΩ, CL=10nF)

型 号 Type	TBC06 LSR508	TBC10 LSR508	TBC15 LSR508	TBC20 LSR508	TBC25 LSR508	TBC30 LSR508	TBC40 LSR508	TBC50 LSR508	单位 Unit
额定输入电流 (I _{pn}) Rated input (I _{pn})	6	10	15	20	25	30	40	50	A
测量电流范围 (I _p) Measuring range (I _p)	±15	±25	±37.5	±50	±62.5	±75	±100	±125	A
匝 比 (N _p /N _s) Turns ratio (N _p /N _s)	1:1200	1:1000	1:1125	1:1000	1:1250	1:1125	1:1000	1:1000	T
内接取样电阻 Internal resistor	40.0	20.0	15.0	10.0	10.0	7.5	5.0	4.0	Ω
额定输出电压 Rated output	@ I _p =±I _{pn} ±0.8±0.5%								V
输出电阻 Output resistance	≤20								Ω
初级引脚尺寸 Size of primary pins	□ 6.28 ×1.0								mm
电源电压 (V _c) Supply voltage	+5±5%								V
功耗电流 Power consumption	≤15+I _p /N _s								mA
参考电压 (V _{ref}) Reference voltage	+2.5±0.5% (Output)								V
参考内接电阻 V _{ref} internal resist	200								Ω
外接参考电压范围 V _{ref} external range	2.0-2.8 (Input)								V
零点电压 Zero voltage	@ I _p =0 +2.5±0.5%								V
失调电压温漂 Offset drift	@ -40~+105℃ ≤±0.05								mV/℃
输出电压温漂 output drift	@ -40~+105℃ ≤±0.05								mV/℃
线性度 Linearity	@ I _p =0-±I _{pn} ≤0.1								%FS
总精度 Total accuracy	≤±1.0								%
di/dt 跟随精度 accurately followed	>50								A/μS
响应时间 Response time	@ I _p =I _{pn} , 50 A/μS, 10%-90% <1.0								μS
宽带 Bandwidth	@ -1db DC~100								KHZ
绝缘电压 Galvanic isolation	@ 50Hz, AC, 1min 3.0								KV

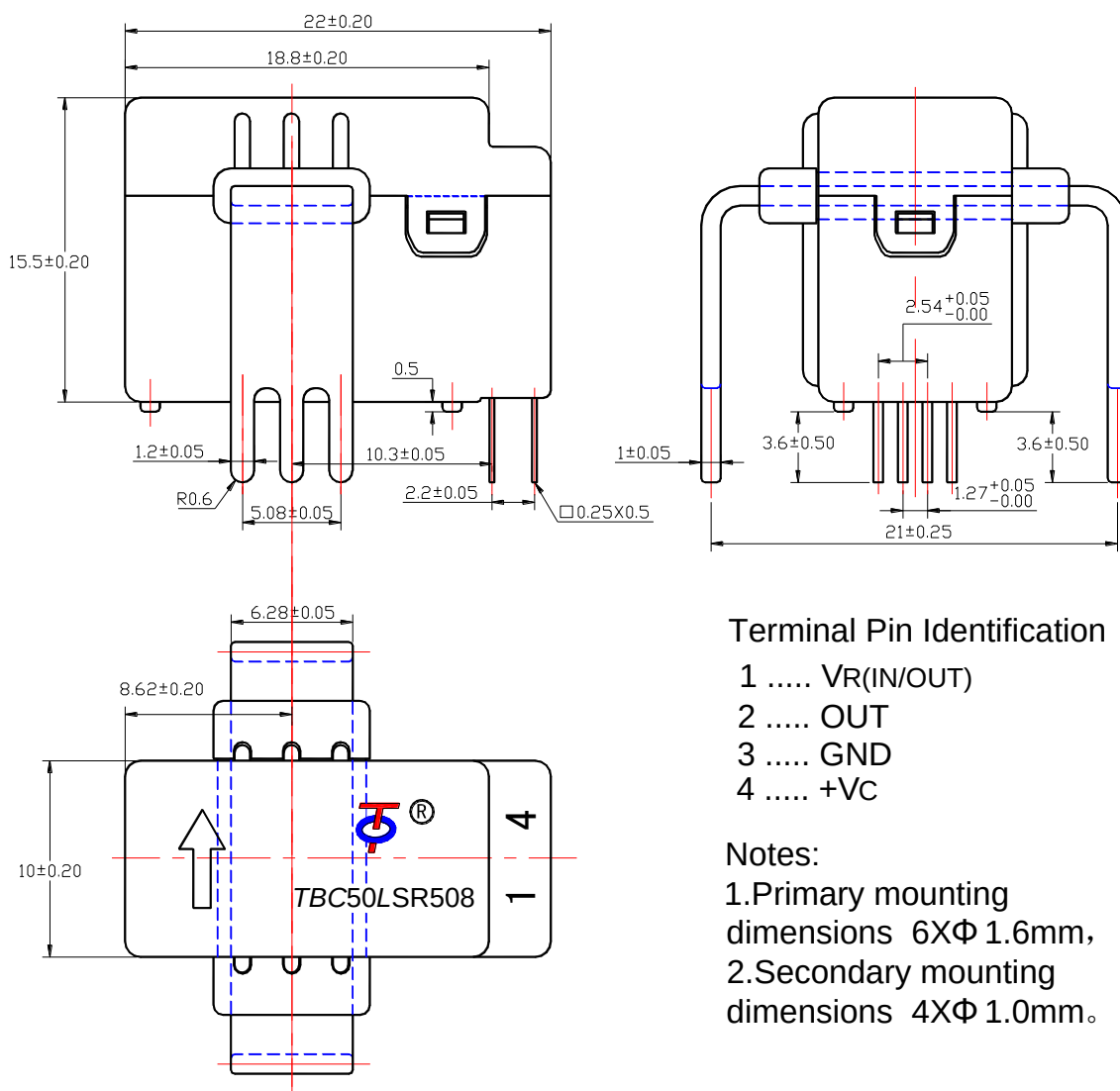
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应用 Applications

- 变频调速系统
Variable speed drives
- 电焊机
Welding machine
- 通讯电源
Battery supplied applications
- 不间断电源 UPS
Uninterruptible Power Supplies (UPS)
- 电化学
Electrochemical
- 光伏产品
Solar inverters

结构参数 Mechanical dimension(for reference only)



Remarks:

1. All dimensions are in mm.
2. General tolerance $\pm 1 \text{mm}$.

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使用说明 Directions for use

1. 当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)
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. 可按用户需求定制不同额定输入电流和输出电压的传感器。
Custom design in the different rated input current and the output voltage available.

执行标准 Standards

- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

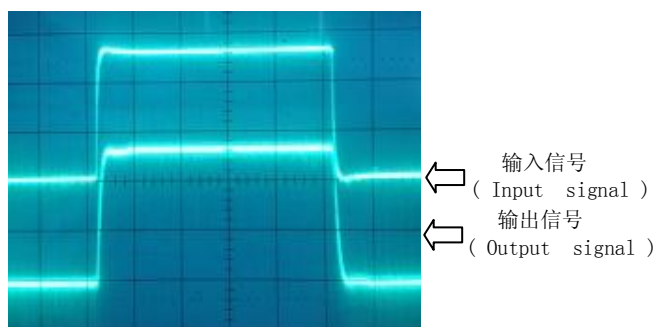
总体参数 General data

	数值 Value	单位 Unit	符号 Symbol
工作温度 Operating temperature	-40 to +105	°C	TA
储存温度 Storage temperature	-40 to +125	°C	TS
毛重(约) Mass (approx)	12	g	M

特性图 Characteristics chart

脉冲电流信号响应特性

Pulse current signal response characteristic



抗脉冲电压干扰特性

Effects of impulse noise

