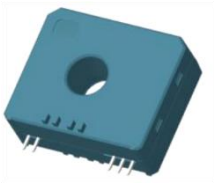
KG10Z2HD05V xxA/2.5±1.2V 磁通门漏电流传感器

本产品是一种微电流测量传感器，采用磁通门原理研制而成的电流传感器。测量方式为穿孔方式，
无插入损耗，输入信号为交、直流微电流，输出为模拟量交、直流电压信号。

This product is a micro current measurement sensor, which is developed by the fluxgate principle. The measurement method is perforation.No insertion loss, the input signal is AC and DC micro current, and the output is analog AC and DC voltage signal.



产品特点 Features

- 5V 单电源供电/5V single power supply
- 磁通门原理/Fluxgate principle
- 电压输出/Voltage output
- 高精度/High precision
- 低温漂/Low temperature bleaching
- 低磁滞/Low hysteresis
- 高带宽/High bandwidth

应用 Applications

- 漏电流测量/Leakage current measurement

绝对最大额定值 Absolute maximum ratings

参数 Parameter	标志 Symbol		单位 Unit	值 value	备注 remark
供电电压 Supply voltage	Vc		V	6.5	

环境和机械特性 Environmental and mechanical characteristics

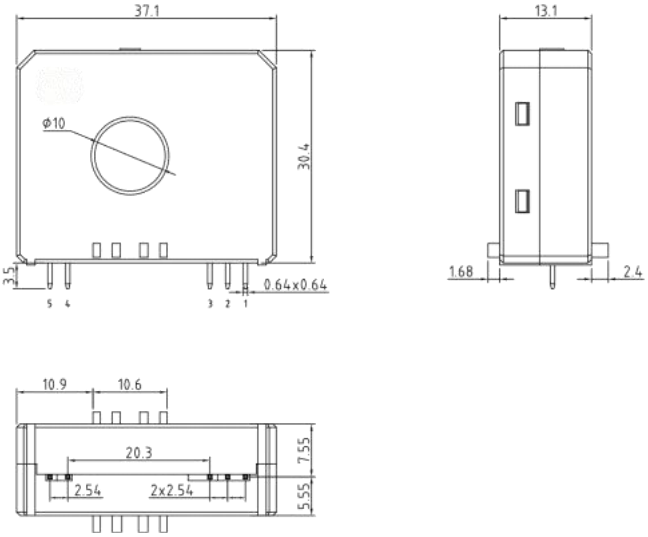
参数 Parameter	标志 Symbol	单位 Unit	最小值 Minimum value	典型值 Typical value	最大值 Maximum value	备注 remark
工作温度 Operating temperature	TA	℃	-40		105	
存储温度 Storage temperature	TS	℃	-40		105	
质量 Mass	m	g		20		

KG10Z2HD05V 0.3A/2.5±1.2V 电气参数 Electrical data at TA =25℃,VC =5V

参数 parameter	标志 Symbol	单位 Unit	最小值 Minimum value	典型值 Typical value	最大值 Maximum value	备注 remark
额定输入电流 Rated input current	Ipn	A	-	±0.3	-	
测量电流范围 Measuring range	Ipm	A	-0.5	-	0.5	
负载电阻 Load resistance	RP	kΩ	100	-	-	@TA=25℃
供电电压 Supply voltage	VC	V	4.9	5	5.1	
空载电流 No-load current	IC	mA	-	20	-	@Ip=0A，TA=25℃
带载电流 On-load current	IC	mA	-	25	-	TBD
参考电压 Reference voltage	Vref	V	2.475	2.5	2.525	RL≥100kΩ
灵敏度 sensitivity	Gth	V/A	-	4	-	
灵敏度误差 Sensitivity error	G	%	-1.5	0.5	1.5	RL≥100kΩ
失调电压 Offset voltage	Voe	mV	-10	-	10	
温度系数 Temperature coefficient	TCG	ppm/K	-	±200	±400	−40~105°C
线性度误差 Linearity error	L	%	-	0.5	1	
反馈时间 Feedback time	tra	μs	-	100	-	RL≥100kΩ,di/dt>5A/μs 10% IPN
响应时间 Response time	tr	μs	-	700	-	RL≥100kΩ,di/dt>5A/μs 90% IPN
频率响应带宽 Frequency response bandwidth	BW	kHz	-	1	-	@-3dB
噪声 Noise	Vno	mVrms	-	10	-	
准确度误差 Accuracy error	X25℃	%of IPN	-	±1	-	
	X105℃	%of IPN	-	±4	-	

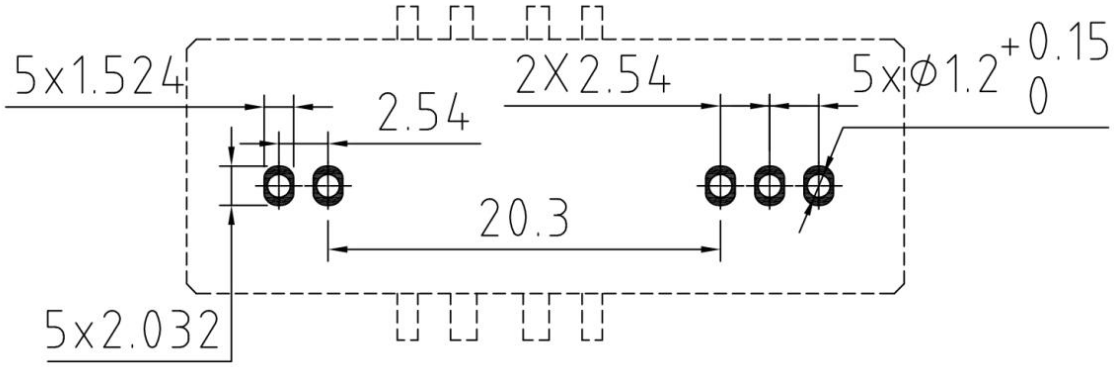
KG10Z2HD05V 1A/2.5±1.2V 电气参数 Electrical data at TA =25℃,VC =5V						
参数 parameter	标志 Symbol	单位 Unit	最小值 Minimum value	典型值 Typical value	最大值 Maximum value	备注 remark
额定输入电流 Rated input current	Ipn	A	-	±1	-	
测量电流范围 Rated input current	Ipm	A	-1.7	-	1.7	
负载电阻 Load resistance	RP	kΩ	100	-	-	@TA=25℃
供电电压 Supply voltage	VC	V	4.9	5	5.1	
空载电流 No-load current	IC	mA	-	20	-	@Ip=0A，TA=25℃
带载电流 On-load current	IC	mA	-	25	-	TBD
参考电压 Reference voltage	Vref	V	2.475	2.5	2.525	RL≥100kΩ
灵敏度 sensitivity	Gth	V/A	-	1.2	-	
灵敏度误差 Sensitivity error	G	%	-1.5	0.5	1.5	RL≥100kΩ
失调电压 Offset voltage	Voe	mV	-10	-	10	
温度系数 Temperature coefficient	TCG	ppm/K	-	±200	±400	−40~105℃
线性度误差 Linearity error	L	%	-	0.5	1	
反馈时间 Feedback time	tra	μs	-	100	-	RL≥100kΩ,di/dt>5A/μs 10% IPN
响应时间 Response time	tr	μs	-	700	-	RL≥100kΩ,di/dt>5A/μs 90% IPN
频率响应带宽 Frequency response bandwidth	BW	kHz	-	1	-	@-3dB
噪声 Noise	Vno	mVrms	-	10	-	
准确度误差 Accuracy error	X25℃	%of IPN	-	±1	-	
	X105℃	%of IPN	-	±4	-	

结构参数 Dimensions(in mm)



- 备注： 所有尺寸单位 mm， 通用公差 ±1 mm/Note: All dimensions in mm, general tolerance ±1 mm

参考封装 Assembly on PCB(in mm)



- 最大 pcb 板厚 2.4mm/Maximum pcb board thickness 2.4mm
- 波峰焊:260°C@10 秒/Wave soldering :260°C@10 seconds
- 推荐 PCB 二次引脚孔径 1.2mm/The recommended PCB secondary pin aperture is 1.2mm