

集成式霍尔电流传感器产品路线图

增强隔离

CA-IS23050W

- 0.61mΩ, ±50A
- 供电: 5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡

CA-IS23080W

- 0.27mΩ, ±80A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡ FLT!!

CA-IS23082W

- 0.27mΩ, ±80A
- 供电: 3.3V/5V
- 带宽: DC-400kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡

CA-IS23100W

- 0.27mΩ, ±100A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡ FLT!!

CA-IS23102W

- 0.27mΩ, ±100A
- 供电: 3.3V/5V
- 带宽: DC-400kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡ FLT!!

CA-IS23051W

- 1.0mΩ, ±50A
- 供电: 3.3/5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡ FLT!!

CA-IS23081W

- 0.61mΩ, ±80A
- 供电: 5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡

CA-IS23101W

- 0.61mΩ, ±100A
- 供电: 5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡

CA-IS23103W

- 1.0mΩ, ±100A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 5000V_{RMS}@1min
- 封装: SOIC16-WB

➡ FLT!!

基本隔离

CA-IS24050S

- 1.0mΩ, ±50A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 3750V_{RMS}@1min
- 封装: SOIC8-NB

➡ FLT!!

CA-IS24052S

- 1.0mΩ, ±50A
- 供电: 3.3V/5V
- 带宽: DC-1MHz
- 隔离: 3750V_{RMS}@1min
- 封装: SOIC8-NB

➡ FLT!!

■ 量产中
■ 送样中
■ 研发中
■ 规划中

功能隔离

CA-IS25030S

- 1.0mΩ, ±30A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 2400V_{RMS}@1min
- 封装: SOIC8-NB

➡ FLT!!

CA-IS25031F

- 0.61mΩ, ±30A
- 供电: 3.3V/5V
- 带宽: DC-120kHz
- 隔离: 2400V_{RMS}@1min
- 封装: QFN-3x3

➡ FLT!!

➡ FLT!! 故障输出
 滤波
 参考输出
 高带宽
 紧凑封装



高性价比

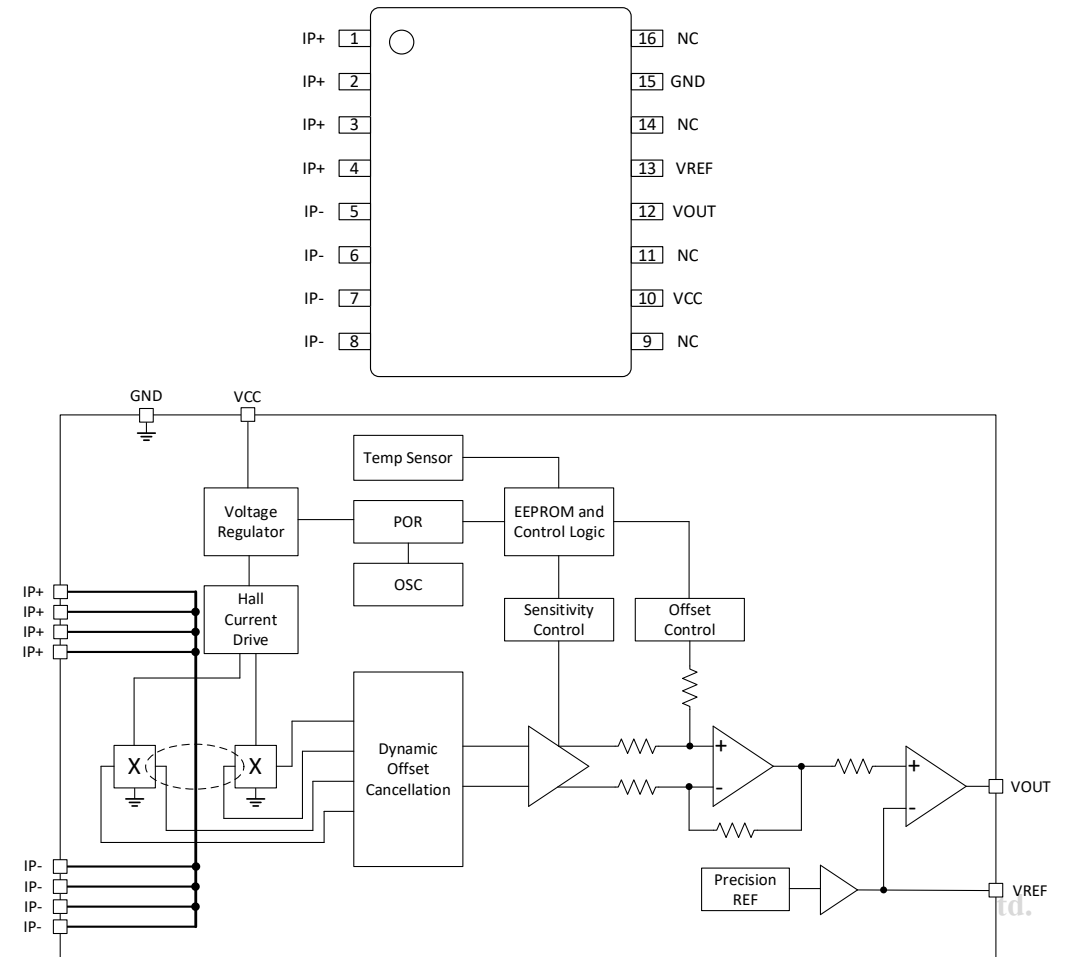
CA-IS23050W 120kHz Hall-Effect Current Sensor with Zero Current Output Voltage Reference

Features

- Differential hall sensing rejects common-mode fields and nearly zero magnetic hysteresis
- Integrated digital temperature compensation circuitry allows for near closed loop accuracy
- High immunity to external magnetic fields
- Precision zero-current reference output
- Primary conductor resistance: **0.61mΩ**
- High current sense range capability: **±50A_{pk}**
- Sensitivity: **40mV/A**
- High accuracy
 - Total output error: ±3% Max@25°C to +125°C
 - Total output error lifetime drift: ±5% Max
 - Sensitivity error: ±2.5% Max@25°C to +125°C
 - Non-linearity: ±1% Max
 - Symmetry: ±1% Max
- Fast response
 - Signal bandwidth: **120kHz**
 - Propagation delay: 2μs
 - Response time: 3.7μs
- Operating supply voltage: 4.5V to 5.5V
- Bidirectional and unidirectional current sensing
- -40°C to +125°C Working Ambient Temperature Range
- Robust Galvanic Isolation
 - 5000VRMS withstand isolation voltage
 - 1097VRMS maximum working isolation voltage
 - 10kV maximum surge isolation withstand voltage
- 16-pin wide-body SOIC16 (W) Package, 10.3mm x 7.5mm
- Safety regulatory approvals
 - 5kVRMS isolation for 1 minute according to UL1577

Typical Application

- Solar Energy
- Motor Control
- EC Charging
- Power supplies
- Industrial AC/DC and DC/DC



Competitor Analysis

	CA-IS23050W	NSM2013-50B5F	ACS724KMATR-50AB	SC844AFT-50F5	MT9522DDWT-50BF5
Supply Voltage VCC	5V	5V	5V	5V	5V
Static Output	2.5V	2.5V	50% x VCC	2.5V	2.5V
Primary Conductor Resistance	0.61mΩ	0.85mΩ	0.85mΩ	0.2mΩ	0.75mΩ
Current Sense Range	±50A	±50A	±50A	±50A	±50A
Signal Bandwidth	120kHz	240kHz	120kHz	240kHz	250kHz
Response Time	3.7us	2.2us	4us	1.8us	2.2us
Sensitivity	40mV/A	40mV/A	40mV/A	40mV/A	40mV/A
Total Output Error @ T _A =25°C~125°C	±3% Max	±2% Max	±1.2% Max	±2.5% Max	±2.8% Typ
Non-linearity	±1% Max ±0.2% Typ	±0.2% Typ	±1% Typ	±1% Max	±0.3% Typ
Bidirectional Current Sensing	Yes	Yes	Yes	Yes	Yes
Isolation Voltage @1 minute	5kV _{RMS}	5kV _{RMS}	4.8kV _{RMS}	4.8kV _{RMS}	4.8kV _{RMS}
CMFR	40dB Typ	40dB Typ	40dB Typ	29.9dB Typ	40dB Typ
CMTI	±150kV/μs Typ	±100kV/μs Min	--	--	--
Package	SOIC16-WB 10.3mm x 7.5mm	SOIC16-WB 10.3mm x 7.5mm	SOIC16-WB 10.3mm x 7.5mm	SOIC16-WB 10.3mm x 7.8mm	SOIC16-WB 10.3mm x 7.5mm