SIEMENS

Magnetic Fieldprobe

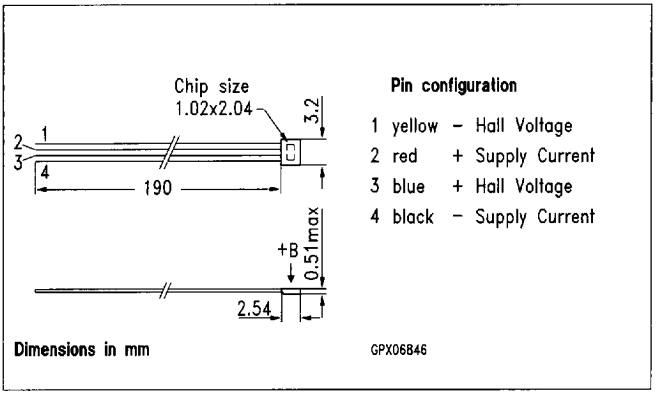
FH 301-40

Features

- High sensitivity
- Low TC of sensitivity and internal resistance
- Very flat ceramic package with wire leads

Typical applications

- Proximity switches
- Brushless DC motor
- Ignition system
- Gaussmeters
- Electronic compass
- Current probes
- Magnetic card reader
- Power tranducers
- Magnetic tape heads



Type	Ordering Code
FH 301-40	Q68000-A8765-F261

The FH 301-40 is a magnetic fieldprobe in InAs semiconductor-material with wire leads, which is mounted on a ceramic substrate. The chip size is 1.02×2.04 mm^2.

Maximum ratings

Parameter	Symbol	Value	Unit
Operating temperature	T_A	– 55...+ 100	°C
Storage temperature	T_{stg}	– 55...+ 120	°C
Supply current	I_1	30	mA
Thermal conductivity soldered, in air	G_{thA} G_{thC}	1.25 25	mW/K mW/K

Characteristics (T_A = 25 °C)

Nominal supply current	I_{1N}	15	mA
Open-circuit sensitivity	K_{B0}	> 8	V/AT
Open-circuit Hall voltage $I_1 = I_{1N}$, B = 1 T	V_{20}	> 100	mV
Ohmic offset voltage $I_1 = I_{1N}$, B = 0 T	V_{R0}	< 6	mV
Linearity of Hall voltage $I_1 = I_{1N}$, B = 0...1 T, R_{LL}	F_L	typ. < 1	%
Input resistance B = 0 T	R_{10}	40...80	W
Output resistance B = 0 T	R_{20}	80...240	W
Temperature coefficient of the open-circuit Hall voltage $I_1 = I_{1N}$, B = 0.1 T, T = –20...+ 80 °C	TC_{V20}	< – 0.1	%/K
Temperature coefficient of the internal resistance B = 0 T, T = –20...+ 80 °C	T_{CR}	< 0.1	%/K
Temperature coefficient of ohmic offset voltage $I_1 = I_{1N}$, B = 0 T, T = –20...+ 80 °C	T_{CV0}	< 10	µV/K