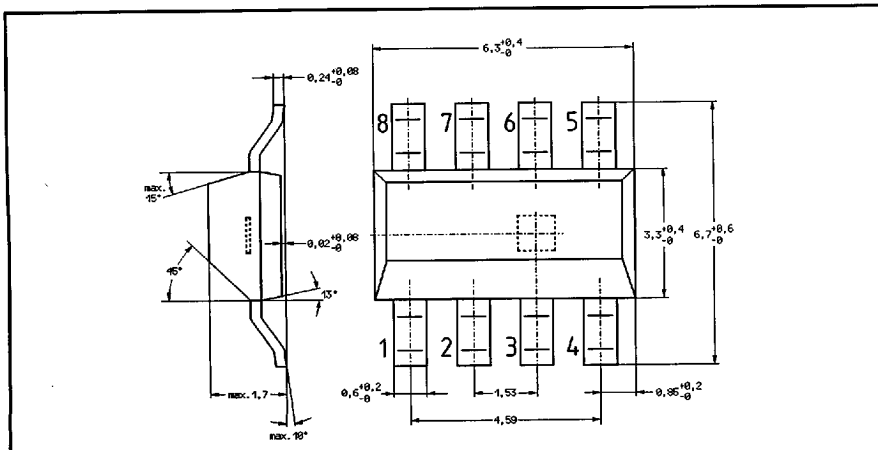
Current Sensor

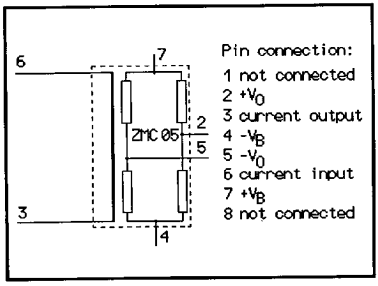
ZMC05



package : SM8

1, 8: not connected 2: $+V_O$ 3: current output 4: $-V_B$ 5: $-V_O$ 6: current input 7: $+V_B$

V_O - output voltage V_B - supply voltage



FEATURES

- Package : SM-8
- A magnetic sensor chip (employing the magnetoresistive effect of thin film permalloy) measures the magnetic field generated by an internal current-carrying conductor.
- measurable current I_M up to 5A
- supply voltage 12 V
- no auxiliary field H_X required
- the ZMC05 is available on 12mm tape

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol		Unit
Supply voltage	V_B	12	V
Isolation voltage	V_{ISOL}	200	V
Measurable current	I_M	5	A
Operating temperature range	T_{amb}	-40 to +120	°C
Storage temperature range	T_{stg}	-40 to +120	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25 °C unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Bridge resistance	R_{br}	1.2	1.7	2.2	kΩ	
Offset voltage	V_{Off}	-	-	±2	mV/V	
Open circuit sensitivity	S	-	0.7	-	(mV/V)/A	
Resistance of the conductor	R	-	0.7	-	mΩ	
Operating frequency	f_{max}	-	-	100	kHz	
Temperature coefficient of open circuit sensitivity	T_C	-	-	-0.3	%/K	

Devices are identified by type on the body of the device

ZMC05..... ZMC05

Ordering information:

ZMC05TA ..... 7" reel 1,000 components per reel
ZMC05TC ..... 13" reel 4,000 components per reel

ZMC05 output voltage V_O(as a function of the supply voltage)