

MS32 Switching Sensor

MEASUREMENT CONDITIONS

Parameter	Symbol	Unit	Condition
A. Set Up Conditions			
ambient temperature	T	°C	T = 23 +/- 5 °C (unless otherwise noted)
supply voltage	V _{CC}	V	V _{CC} = 5 V
applied magnetic field	H _Y	kA/m	H _Y = -7 .. +7 kA/m; along y-direction; H _X < 100 A/m Pre-magnetization along x-direction with H _X >= 3 kA/m
B. Parameter Definitions (T= -25 °C, +85 °C) see characteristic values ⁶⁾			
ambient temperatures	T	°C	T ₁ = -25 , T ₀ = +30 , T ₂ = +85 °C
TC of amplitude	TCSV	%/K	$TCV = \frac{1}{(T_2 - T_1)} \cdot \frac{V_a(T_2) - V_a(T_1)}{V_a(T_1)} \cdot 100\%$
TC of resistance	TCBR	%/K	$TCR = \frac{1}{(T_2 - T_1)} \cdot \frac{R(T_2) - R(T_1)}{R(T_1)} \cdot 100\%$
TC of offset	TCV _{OFF}	μV/(VK)	$TCV_{off} = \frac{V_{off}(T_2) - V_{off}(T_1)}{(T_2 - T_1)}$

BLOCK DIAGRAM

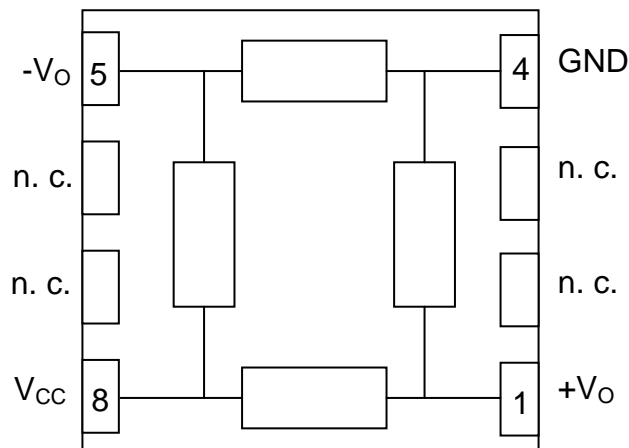


Figure 2: internal and external connections (TDFN, Chip)

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SENSOR OUTLINE

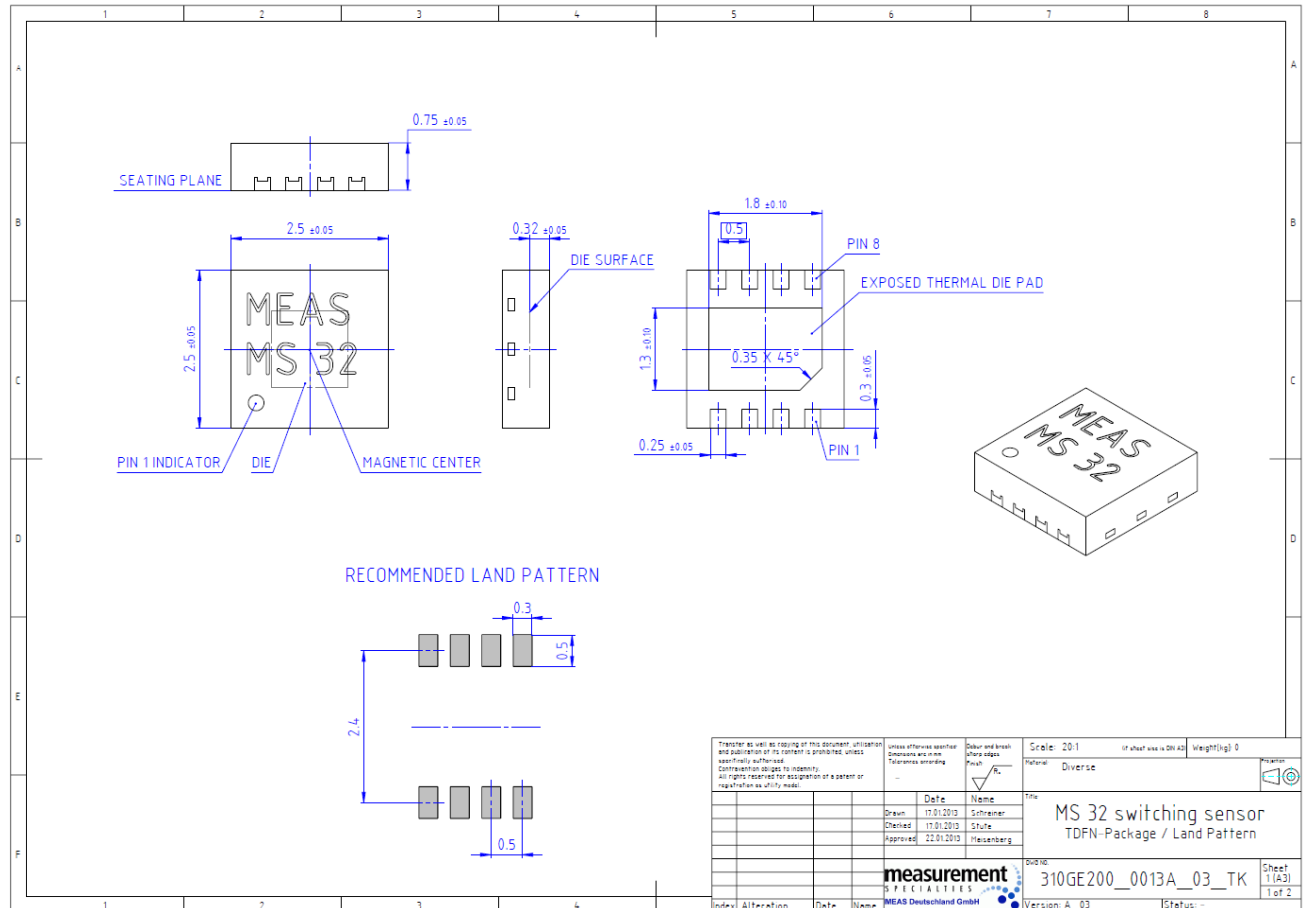


Figure 3: TDFN-package outline and recommended land pattern

Pin assignment:

Pin	Symbol	Function
1	+V _O	positive output bridge
2	n. c.	not connected
3	n. c.	not connected
4	GND	ground
5	-V _O	negative output bridge
6	n. c.	not connected
7	n. c.	not connected
8	V _{CC}	supply voltage bridge

Note:

Pin 1 position is marked by a dot on the top side and by the chamfered corner of the bottom plate. The bottom plate is designated to be a heat sink. It has no electrical connection to any pin. The sensitive area is positioned in the center of the package.