HIGH CURRENT INDUCTORS

MODEL NO. : VTHI-430380FS SERIES

Preliminary

Features :

* Low core loss and high efficiency performance.
* High inductance range and high saturation current, up to 50 Amp with approx. 50% roll off.
* Close magnetic path for low leakage flux.
* Low DCR with flat wire design.
* Compliant with RoHS and REACH.
* AEC-Q200 Qualified.

Application :

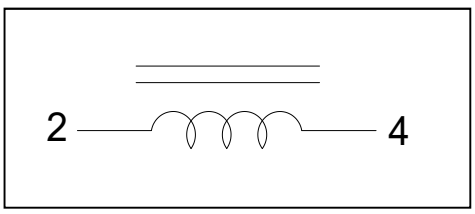
* DC/DC converter in power regulation system.
* PFC choke for switching mode power converters.
* Automotive electronics.

Electrical Specification :

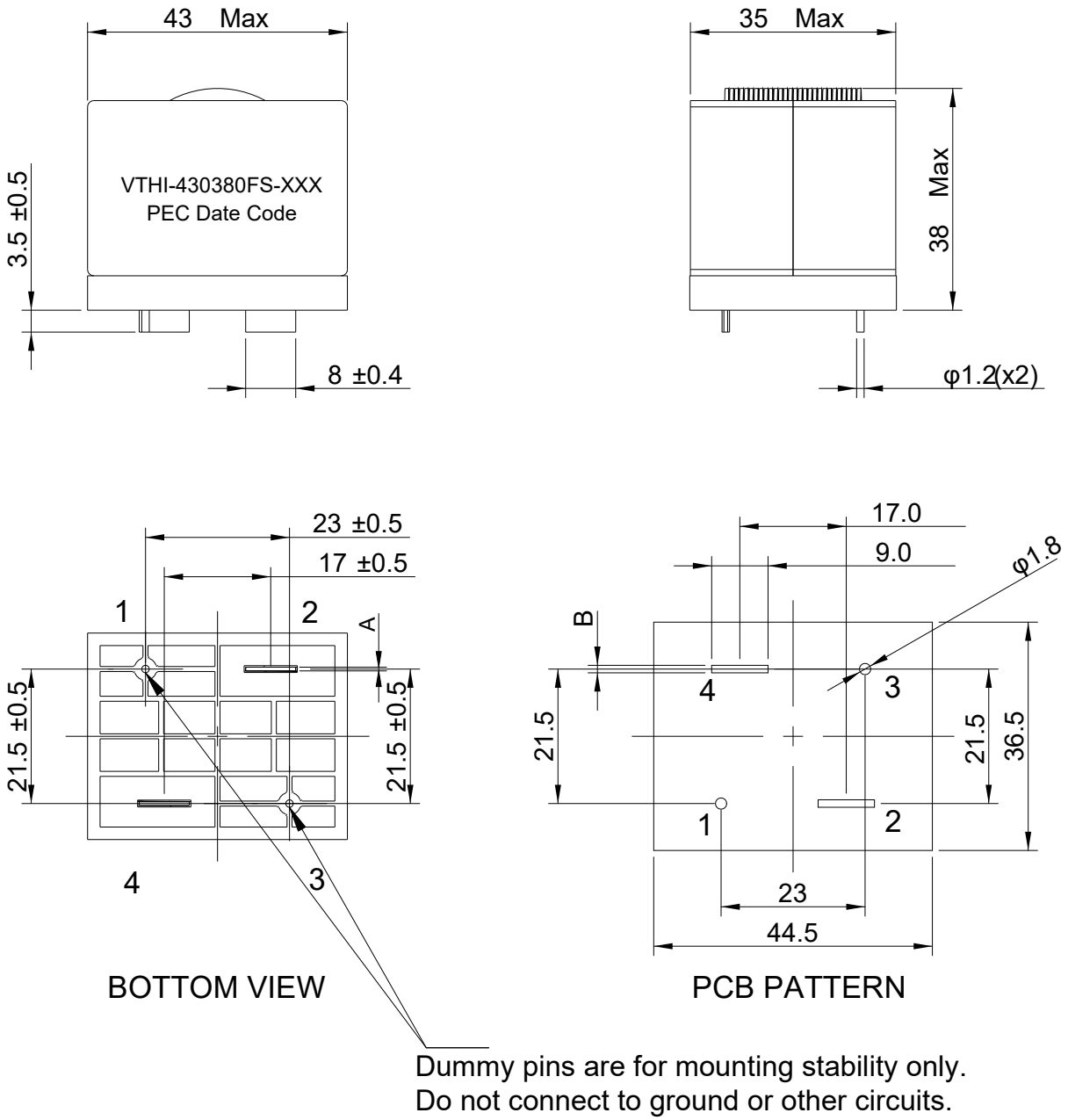
PART NO	INDUCTANCE (uH) ±20% @0 ADC	DCR (mΩ)@20℃ ±10%	TEMPERATURE RISE CURRENT (ADC) (NOTE 2)	SATURATION CURRENT (ADC)			DIMENSION (mm)	
				L Drop 20% (NOTE 3)	L Drop 30% (NOTE 4)	L Drop 50% (NOTE 5)	A	B
VTHI-430380FS-900	90	6.0	35.3	25.7	33.8	50.0	0.70	1.3
VTHI-430380FS-111	115	7.7	31.0	23.0	30.2	44.5	0.60	1.2
VTHI-430380FS-191	190	12.0	25.0	17.8	23.4	34.6	0.50	1.1
VTHI-430380FS-281	285	18.2	20.2	14.6	19.2	28.3	0.40	1.0

NOTE(1): Measuring condition : 100 KHZ, 0.1Vrms.
NOTE(2): ΔT=50℃ approximately under the temperature rise current.
Temperature rise is highly dependent on many factors including PCB land pattern, trace size, and proximity to other components. Therefore, temperature rise should be verified in application conditions.
NOTE(3): The saturation current indicates the value of DC current is approximately 20% lower than its initial value of inductance.
NOTE(4): The saturation current indicates the value of DC current is approximately 30% lower than its initial value of inductance.
NOTE(5): The saturation current indicates the value of DC current is approximately 50% lower than its initial value of inductance.
NOTE(6): Operating temperature range: -40℃~ +125℃.
NOTE(7): Storage time :The recommended storage time of Inductor is maximum 12 months, and don't suggest to use the parts over 12 months.

Schematic:



Physical Dimension : (unit :mm)



Inductance vs DC Bias :