# Magnetics Shielded Surface Mount Coupled Inductors





#### Features and Benefits

- Operating Temperature Range -50°C to +155°C
- Temperature Rise, Maximum 40°C
- AEC-Q200 CERTIFIED
- RoHS Compliant





# Specifications @ 25°C

	Inductance 100kHz	Inductance 100kHz	Leakage <sup>(1)</sup> Inductance 100kHz 0.1V	Heating Current <sup>(2)</sup>		Isat <sup>(3)</sup> Saturation	DC Resistance	
Part Number	0.1V (Parallel)	0.1V (Series)		Both Winding	One Winding	Current	Parallel	Series
	@ 0Adc μH ± 20%	@ 0Adc μH ± 25%	μΗ ТҮР	Amps	Amps	Amps	mΩ Max	mΩ Max
HA78D-L128100MLFTR	10.0	40.0	2.75	2.56	3.62	10.66	29.0	116.0
HA78D-L128220MLFTR	22.0	88.0	5.85	1.99	2.81	7.26	48.0	192.0
HA78D-L128330MLFTR	33.0	132.0	10.1	1.59	2.25	6.52	75.0	300.0
HA78D-L128470MLFTR	47.0	188.0	14.5	1.45	2.05	4.60	90.0	360.0

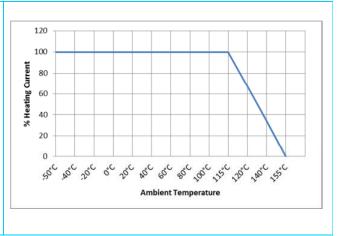
Notes: (1) Leakage inductance is for L1 and is measured with L2 shorted.

- (2) The Heating Current is the DC current which causes the component temperature to increase by approximately 40°C from 25°C ambient. This current is determined by soldering the component on a typical application PCB, and then applying the current to the component for 30 minutes. Heating current in both winding is under series configuration.
- (3) Isat is the saturation current at which inductance rolls off approximately 30% from its initial unbiased inductance value. It is sum of current flowing on both winding (parallel configuration).
- (4) PC Board layout, proximity of other components, trace size and airflow will affect temperature rise and must be considered when selecting an inductor.

# **Electrical Schematic**

# Coupled inductor, transformer and SEPIC modes

### **Derating Curve**

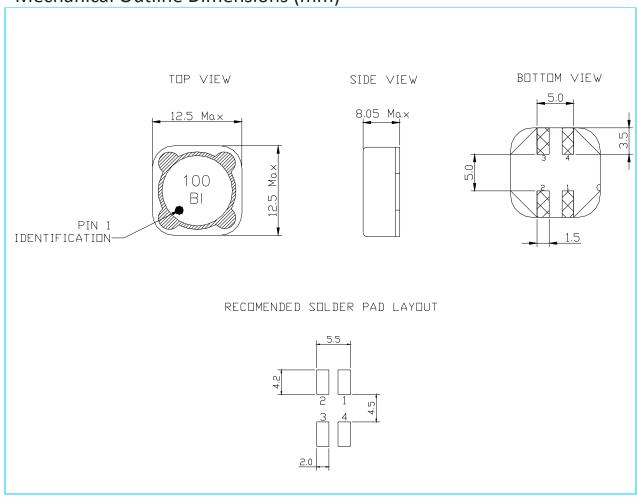


#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.

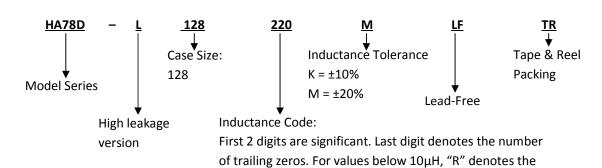
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

# Mechanical Outline Dimensions (mm)



# Packing / Ordering Information

	Embossed Tape	Embossed Tape and Reel						
Standard:	Reel:	Diameter :		=	13" (330.2mm)			
		Capacity:	Case Size 128	=	500 Units			



decimal point.

#### General Note

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