

SMD Power Inductors



KEY BENEFITS

- Highest rated current of any surface mount composite inductor
- Temperature range – from - 55 °C to + 155 °C
- Inductance range – from 0.22 μ H to 100 μ H
- Current rating – from 9.7 A (100 μ H) to 180 A (0.22 μ H)
- DCR range – from 0.17 m Ω (0.22 μ H) to 28.3 m Ω (100 μ H)

APPLICATIONS

- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors
 - Windshield wipers, power seats, power mirrors, heating and ventilation blowers, HID lighting

RESOURCES

- Datasheet: IHLP-8787MZ-5A - <http://www.vishay.com/doc?34350>
- For technical questions contact magnetics@vishay.com
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



SMD Power Inductors



Manufactured under one or more of the following:
US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.
 Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS				
L_0 INDUCTANCE + 20 %/- 10 % AT 100 kHz, 0.25 V, 0 A (μ H)	DCR TYP. 25 °C (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽³⁾	SATURATION CURRENT DC TYP. (A) ⁽⁴⁾
0.22	0.15	0.17	180	180
0.47	0.35	0.38	100	100
1.0	0.50	0.60	85	85
3.3	1.40	1.50	50	50
4.7	1.70	1.80	46	46
6.8	2.50	2.70	38	38
10	4.00	4.20	30	30
15	5.90	6.20	25	25
75	22.00	23.50	12	12
82	22.60	24.20	10.7	10.7
100	27.00	28.30	9.7	9.7

Notes

- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range - 55 °C to + 155 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L_0 to drop approximately 20 %
- (5) The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

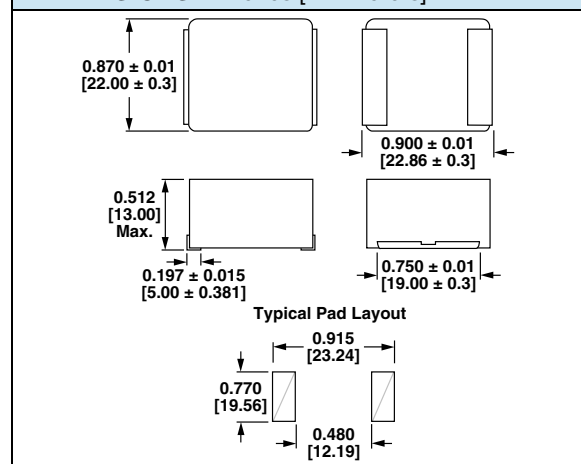
FEATURES

- High temperature rating, up to 155 °C
- Shielded construction
- Lowest DCR/ μ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction

APPLICATIONS

- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors
 - Windshield wipers
 - Power seats
 - Power mirrors
 - Heating and ventilation blowers
 - HID lighting
- LED drivers

DIMENSIONS in inches [millimeters]



DESCRIPTION				
IHLP-8787MZ-5A	100 μ H	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER											
I	H	L	P	8	7	8	7	M	Z	E R 1 0 1 M 5 A	
PRODUCT FAMILY				SIZE				PACKAGE CODE	INDUCTANCE VALUE	TOL.	SERIES

Revision 25-Sep-12