

August 30, 2013

## Product news

## SMT power inductor design with increased current capability

The new series of EPCOS SMT power inductors presents 10 percent higher current capability than existing types. The components of the improved and highly reliable B82476B1\*M100 series of SMT power inductors are designed for rated currents between 0.33 A and 7.5 A. The spectrum of inductance values ranges from 1.0  $\mu\text{H}$  to 1000  $\mu\text{H}$ , and the typical DC resistance is between 6.0 m $\Omega$  and 1.95 m $\Omega$ .



The power inductors, which are qualified to AEC-Q200, are suitable for operating temperatures from -55 °C to +150 °C and thus fulfill the rigorous requirements for automotive electronics applications. Designed with a base plate, the unshielded components offer high mechanical stability. The new inductors have a footprint of 12.95 mm x 9.40 mm and an insertion height of 5.08 mm. The components are RoHS-compatible and suitable for lead-free soldering to JEDEC J-STD-020D. The main applications for the high power inductors are DC-DC converters in automotive electronics and switch-mode power supplies (SMPS) for demanding industrial electronics applications.

### Ordering codes and key data

Ordering code	$L_R$ [ $\mu\text{H}$ ]	Tolerance	$f_L$ [MHz]	$I_R$ [A]	$I_{\text{sat,min}}$ [A]	$I_{\text{sat,typ}}$ [A]	$R_{\text{max}}$ [ $\Omega$ ]	$R_{\text{typ}}$ [ $\Omega$ ]
B82476B1102M100	1.0	20% = M	0.1	7.50	9.0	12.5	0.0080	0.0060
B82476B1152M100	1.5			6.90	8.0	10.0	0.0090	0.0070
B82476B1222M100	2.2			6.70	7.0	8.00	0.0105	0.0090
B82476B1332M100	3.3			5.90	6.4	6.80	0.0135	0.0115
B82476B1472M100	4.7			5.30	5.4	5.60	0.0165	0.0145
B82476B1682M100	6.8			4.80	4.6	4.90	0.0210	0.0190
B82476B1103M100	10			4.30	3.8	4.25	0.0270	0.0245
B82476B1153M100	15			3.40	3.0	3.40	0.0400	0.0350
B82476B1223M100	22			2.95	2.6	2.80	0.0500	0.0450
B82476B1333M100	33			2.30	2.0	2.15	0.0880	0.0810
B82476B1473M100	47			1.95	1.6	2.05	0.120	0.110
B82476B1683M100	68			1.65	1.4	1.65	0.160	0.150
B82476B1104M100	100			1.40	1.2	1.35	0.230	0.215
B82476B1154M100	150			1.10	1.0	1.15	0.330	0.305
B82476B1224M100	220			0.88	0.8	0.88	0.530	0.480
B82476B1334M100	330			0.65	0.6	0.67	0.810	0.730
B82476B1474M100	470			0.55	0.5	0.56	1.100	1.010
B82476B1684M100	680			0,43	0,4	0,46	1,600	1,500
B82476B1105M100	1000			0,33	0,3	0,42	2,150	1,950

EPCOS AG · A Member of TDK-EPC Corporation

Office: St.-Martin-Strasse 53, 81669 Munich · Post: P.O.Box 80 17 09, 81617 Munich, Germany  
 Headquarters: Munich · Commercial register of the local court (Amtsgericht): Munich HRB 127250  
 Chairman of the Supervisory Board: Dr. Werner Faber  
 Management Board: Joachim Zichlarz, Speaker · Joachim Thiele · Dr. Norbert Hess · Christian Block  
[www.epcos.com](http://www.epcos.com)

Inductors

Internal / External

130830IN1e

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Samples are available immediately.

The data sheets may be downloaded under [www.epcos.com/power\\_inductors](http://www.epcos.com/power_inductors).

**Contact** Matthias Marx, MAG IN PI PM, Munich

**Customers are asked to address inquiries directly to their sales contacts.**