The MSD1260T series of shielded coupled inductors was designed specifically for high temperature applications – up to 125°C ambient.

Tight coupling (k ≥ 0.97) and 500 Vrms isolation make them ideal for use in a variety of circuits including flyback, multi-output buck, SEPIC and Zeta. These parts provide high inductance, high efficiency and excellent current handling.

They can also be used as two single inductors connected in series or parallel or as a common mode choke.

![Typical Flyback Converter](#)

![Typical Buck Converter with auxiliary output](#)

![Typical SEPIC schematic](#)

![Typical Zeta schematic](#)

---

**Recommended Land Pattern**

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>0.217 ±0.008</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.197 ±0.008</td>
<td>6.0 ±0.2</td>
</tr>
</tbody>
</table>

* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.012 inch (0.3 mm).

Dimensions are in **inches | mm**

---

Coilcraft

wwwcoilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore +65-6484 8412 sales@coilcraft.com.sg

© Coilcraft Inc. 2021
This product may not be used in medical or high risk applications without prior Coilcraft approval
Specification subject to change without notice
Please check web site for latest information
1. When ordering, please specify termination and packaging codes:

MSD1260T-105KLD

Termination: L = RoHS compliant matte tin over nickel on phosphor bronze. Special order: T = RoHS tin-silver-copper (95.5/4.0/0.5) or S = non-RoHS tin-lead (63/37).

Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (500 parts per reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent. When leads are connected in parallel, inductance is the same. When leads are connected in series, inductance is four times the value.

3. DCR is for each winding. When leads are connected in parallel, DCR is half the value. When leads are connected in series, DCR is the twice the value.

4. SRF measured using an Agilent/HP 4191A or equivalent. When leads are connected in parallel, SRF is the same value.

5. Leakage inductance is for L1 and is measured with L2 shorted.

6. DC current, at which the inductance drops the specified amount from its value without current. It is the sum of the current flowing in both windings.

7. Equal current when applied to each winding simultaneously that causes a 40°C temperature rise from 25°C ambient.

8. Maximum current when applied to one winding that causes a 40°C temperature rise from 25°C ambient.

9. Electrical specifications at 25°C.

Refer to Doc 639 “Selecting Coupled Inductors for SEPIC Applications.”
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

**Shielded Coupled Inductor Core and Winding Loss Calculator**

This web-based utility allows you to enter frequency, peak-to-peak (ripple) current, and Irms current to predict temperature rise and overall losses, including core loss. Go to online calculator.

**Core material**

Ferrite

**Core and winding loss** Go to online calculator

**Terminations** RoHS compliant matte tin over nickel on phosphor bronze. Other terminations available at additional cost.

**Weight** 2.8 – 3.2 g

**Ambient temperature** –40°C to +125°C with Irms current

**Maximum part temperature** +165°C (ambient + temp rise)

**Storage temperature** Component: –40°C to +165°C. Tape and reel packaging: –40°C to +80°C

**Winding-to-winding isolation** 500 Vrms, one minute

**Resistance to soldering heat** Max three 40 second refows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

10.06 per billion hours / 9.94E+07 hours, calculated per Telcordia SR-332

**Packaging** 500/13" reel; Plastic tape: 24 mm wide, 0.5 mm thick, 16 mm pocket spacing, 6.9 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.
Shielded Coupled Inductors – MSD1260T

Typical L vs Current

Typical L vs Frequency