



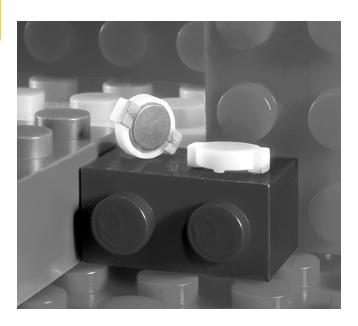






# SMT Power Inductors - DO1606T





|                 |                             | DCR           | SRF          |                          |                       |
|-----------------|-----------------------------|---------------|--------------|--------------------------|-----------------------|
| Part<br>number¹ | L ±20% <sup>2</sup><br>(µH) | max<br>(Ohms) | ref<br>(MHz) | Isat <sup>3</sup><br>(A) | Irms <sup>4</sup> (A) |
| DO1606T-102ML_  | 1.0                         | 0.04          | 230          | 2.5                      | 2.3                   |
| DO1606T-152ML_  | 1.5                         | 0.06          | 180          | 2.2                      | 2.1                   |
| DO1606T-222ML_  | 2.2                         | 0.07          | 140          | 1.8                      | 1.7                   |
| DO1606T-332ML_  | 3.3                         | 0.12          | 110          | 1.4                      | 1.3                   |
| DO1606T-472ML_  | 4.7                         | 0.15          | 100          | 1.2                      | 1.1                   |
| DO1606T-682ML_  | 6.8                         | 0.20          | 80           | 1.1                      | 1.0                   |
| DO1606T-822ML_  | 8.2                         | 0.23          | 70           | 1.0                      | 0.95                  |
| DO1606T-103ML_  | 10                          | 0.30          | 60           | 1.0                      | 0.90                  |
| DO1606T-153ML_  | 15                          | 0.40          | 45           | 8.0                      | 0.70                  |
| DO1606T-223ML_  | 22                          | 0.54          | 35           | 0.6                      | 0.50                  |
| DO1606T-333ML_  | 33                          | 0.74          | 30           | 0.5                      | 0.45                  |
| DO1606T-473ML_  | 47                          | 1.1           | 22           | 0.45                     | 0.40                  |
| DO1606T-683ML_  | 68                          | 1.6           | 20           | 0.35                     | 0.35                  |
| DO1606T-104ML_  | 100                         | 2.3           | 15           | 0.30                     | 0.30                  |
| DO1606T-154ML_  | 150                         | 3.5           | 10           | 0.25                     | 0.25                  |
| DO1606T-224ML_  | 220                         | 5.7           | 9            | 0.20                     | 0.18                  |
| DO1606T-334ML_  | 330                         | 8.2           | 8            | 0.16                     | 0.16                  |
| DO1606T-474ML_  | 470                         | 10.8          | 7            | 0.14                     | 0.12                  |
| DO1606T-684ML_  | 680                         | 17.2          | 5            | 0.12                     | 0.10                  |
| DO1606T-105ML_  | 1000                        | 22.6          | 4            | 0.08                     | 0.08                  |

- · Only 2.0 mm high
- Handles current up to 2.3 Amps rms

Designer's Kit C338 contains 3 each of all values

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 116-136 mg

Ambient temperature -40°C to +85°C with Irms current

Maximum part temperature +125°C (ambient + temp rise

Storage temperature Component: -40°C to +125°C.

Tape and reel packaging: -40°C to +80°C

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

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

Packaging 750/7" reel; 2500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.5 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

1. When ordering, please specify termination and packaging codes:

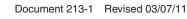
#### DO1606T-105MLC

Termination: L= RoHS compliant silver-palladium-platinum-glass frit Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

- Packaging: C= 7" machine-ready reel. EIA-481 embossed plastic tape (750 parts per full 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 C.
  - D= 13" machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).
- 2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Vdc.
- 3. DC current at which the inductance drops 10% (typ) from its value
- 4. Current that causes a 40°C temperature rise from 25°C ambient.
- 5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.





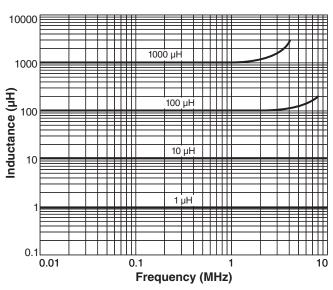




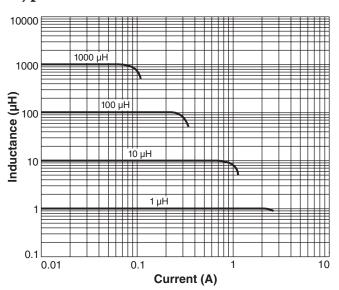
## SMTPowerInductors-DO1606TSeries

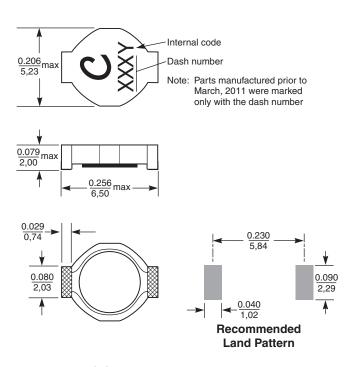
### Typical L vs Frequency

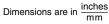




### Typical L vs Current









Specification subject to change without notice Please check web site for latest information

#### **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

#### Coilcraft:

 DO1606T-822MLC
 DO1606T-474MLC
 DO1606T-332MLC
 DO1606T-684MLC
 DO1606T-822MLB
 DO1606T 

 473MLC
 DO1606T-103MLB
 DO1606T-474MLB
 DO1606T-333MLC
 DO1606T-105MLB
 DO1606T-104MLB

 DO1606T-333MLB
 DO1606T-103MLC
 DO1606T-154MLB
 DO1606T-222MLC
 DO1606T-682MLC
 DO1606T-102MLC

 DO1606T-105MLC
 DO1606T-224MLC
 DO1606T-334MLB
 DO1606T-472MLB
 DO1606T-153MLC
 DO1606T-153MLC

 154MLC
 DO1606T-152MLC
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 DO1606T-684MLB
 DO1606T-223MLB
 DO1606T-104MLC
 DO1606T-683MLB
 DO1606T-683MLB

 683MLC
 C338