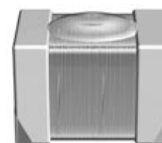




Size 0805 (EIA) and/or 2012 (IEC)

Rated inductance 2,7 to 4700 nH

Rated current 90 to 1000 mA



Construction

- Cubic coil with ceramic or ferrite core
- Winding partially plastic-sealed
- Winding ends welded to contact areas

Features

- High Q factor
- High resonance frequency
- Close inductance tolerance
- Suitable for reflow (IR and vapor phase) and wave soldering

Applications

Resonant circuits, impedance matching for

- Antenna amplifiers
- DECT systems
- Mobile phones
- Keyless entry
- GPS (Global Positioning System)

Terminals

- Thick-film coating of Ag/Pd/Pt
- Base material Al_2O_3 ceramic or ferrite

Marking

No marking on component

Minimum data on reel:

Manufacturer, part number, ordering code,
 L value and tolerance of L value,
quantity, date of packing

Delivery mode

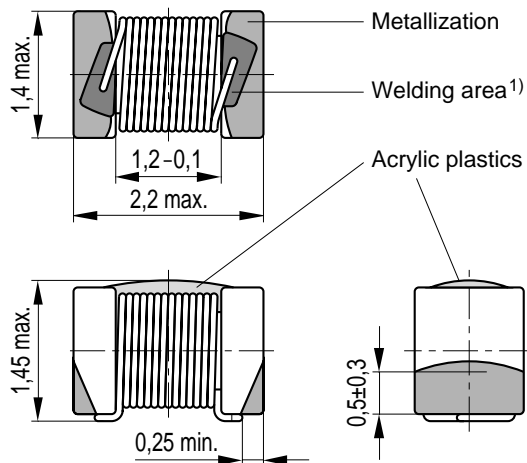
8-mm blister tape, wound on 178-mm or 330-mm \varnothing reel

For details on taping, packing and packing units [see page 153](#)

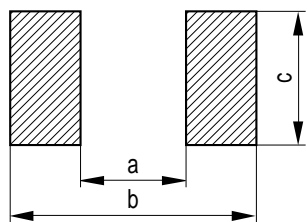
General technical data

| | |
|--|---|
| Rated inductance L_R | Measured with RF LCR meter HP 4286A at frequency f_L |
| Q factor Q_{\min} , Q_{typ} | Measured with RF LCR meter HP 4286A, Q_{\min} measured at frequency f_Q |
| Rated current I_R | Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 20\text{ K}$ at rated temperature of 85°C |
| Self-resonance frequency $f_{\text{res, min}}$ | Measured with network analyzer HP 8753 |
| DC resistance R_{max} | Measured at 20°C ambient temperature, measuring current $< I_R$ |
| Climatic category | In accordance with IEC 60068-1 55/125/56 ($-55^\circ\text{C}/+125^\circ\text{C}/56$ days damp heat test) |
| Solderability | In accordance with IEC 60062-2-58 (215 ± 3) $^\circ\text{C}$, ($3 \pm 0,3$) s Wetting of soldering area: $\geq 95\%$ |
| Resistance to soldering heat | In accordance with IEC 60068-2-20 260°C , 10 s $\Delta L/L \leq \pm 3\%$ |
| Permissible PCB bending | 2 mm (100 mm long standard PCB) |
| Weight | Approx. 8,5 mg |

Dimensional drawing



Layout recommendation



SSB1356-J

Dimensions (mm)

| <i>a</i> | <i>b</i> | <i>c</i> |
|-----------|-----------|-----------|
| 1,1 ± 0,1 | 3,4 ± 0,4 | 1,1 ± 0,2 |

1) This area (30 % of contact area) should not be used to asses solderability

Characteristics and ordering codes

| L_R | Tolerance ¹⁾ | Q_{\min} | Q_{typ} (at 800 MHz) | $f_L; f_Q$ | I_R | R_{\max} | $f_{\text{res, min}}$ | Ordering code ²⁾ (\varnothing 180-mm reel) |
|-------------------------|-------------------------|------------|-------------------------------------|------------|-------|------------|-----------------------|---|
| nH | | | | MHz | mA | Ω | MHz | |
| Core material: ceramics | | | | | | | | |
| 2,7 | $\pm 10\%$ | 20 | 50 | 250 | 1000 | 0,03 | 6000 | B82498-B3279-M |
| 5,6 | $\triangleq K$ | 25 | 60 | 250 | 900 | 0,04 | 6000 | B82498-B3569-M |
| 6,8 | $\pm 20\%$ | 30 | 70 | 250 | 800 | 0,05 | 5500 | B82498-B3689-K |
| 8,2 | $\triangleq M$ | 35 | 75 | 250 | 700 | 0,06 | 5000 | B82498-B3829-M |
| 10 | $\pm 5\%$ | 40 | 80 | 250 | 700 | 0,06 | 4500 | B82498-B3100-+ |
| 12 | $\triangleq J$ | 40 | 85 | 250 | 700 | 0,06 | 4000 | B82498-B3120-+ |
| 15 | $\pm 10\%$ | 40 | 85 | 250 | 670 | 0,07 | 3500 | B82498-B3150-+ |
| 18 | $\triangleq K$ | 45 | 90 | 250 | 670 | 0,07 | 3300 | B82498-B3180-+ |
| 22 | | 45 | 85 | 250 | 600 | 0,09 | 2600 | B82498-B3220-+ |
| 27 | | 50 | 90 | 250 | 600 | 0,09 | 2500 | B82498-B3270-+ |
| 33 | | 45 | 80 | 250 | 520 | 0,12 | 2150 | B82498-B3330-+ |
| 39 | | 50 | 90 | 250 | 560 | 0,10 | 2050 | B82498-B3390-+ |
| 47 | | 45 | 85 | 200 | 500 | 0,13 | 1900 | B82498-B3470-+ |
| 56 | $\pm 2\%$ | 45 | 60 | 200 | 480 | 0,14 | 1700 | B82498-B3560-+ |
| 68 | $\triangleq G$ | 45 | 60 | 200 | 410 | 0,19 | 1550 | B82498-B3680-+ |
| 82 | $\pm 5\%$ | 40 | 60 | 150 | 390 | 0,21 | 1430 | B82498-B3820-+ |
| 100 | $\triangleq J$ | 40 | 50 | 150 | 350 | 0,26 | 1310 | B82498-B3101-+ |
| 120 | $\pm 10\%$ | 40 | 45 | 150 | 270 | 0,44 | 1210 | B82498-B3121-+ |
| 150 | $\triangleq K$ | 35 | 40 | 100 | 270 | 0,44 | 1120 | B82498-B3151-+ |
| 180 | | 35 | 30 | 100 | 260 | 0,47 | 1030 | B82498-B3181-+ |
| 220 | | 35 | — | 100 | 240 | 0,55 | 950 | B82498-B3221-+ |
| 270 | | 35 | — | 100 | 180 | 1,0 | 870 | B82498-B3271-+ |
| 330 | | 35 | — | 100 | 180 | 1,0 | 800 | B82498-B3331-+ |
| 390 | | 35 | — | 100 | 130 | 1,9 | 730 | B82498-B3391-+ |
| 470 | | 35 | — | 100 | 115 | 2,4 | 660 | B82498-B3471-+ |
| 560 | | 35 | — | 100 | 100 | 3,2 | 600 | B82498-B3561-+ |

1) Closer tolerances upon request.

2) Replace the + by the code letter for the required inductance tolerance.

For reel size \varnothing 330 mm append code number »8«. Example: B82498-B3279-M8


Characteristics and ordering codes (continued)

| L_R nH | Tolerance ¹⁾ | Q_{\min} | Q_{typ} (at 800 MHz) | $f_L; f_Q$ MHz | I_R mA | R_{\max} Ω | $f_{\text{res, min}}$ MHz | Ordering code ²⁾ (\varnothing 180-mm reel) |
|------------------------|-------------------------|------------|-------------------------------------|-------------------|-------------|------------------------|------------------------------|---|
| Core material: ferrite | | | | | | | | |
| 680 | $\pm 2\%$ | 20 | — | 25,2 | 250 | 0,50 | 450 | B82498-B1681-+ |
| 820 | $\triangleq G$ | 20 | — | 25,2 | 240 | 0,55 | 400 | B82498-B1821-+ |
| 1000 | $\pm 5\%$ | 20 | — | 7,96 | 250 | 0,50 | 350 | B82498-B1102-+ |
| 1200 | $\triangleq J$ | 20 | — | 7,96 | 220 | 0,65 | 300 | B82498-B1122-+ |
| 1500 | $\pm 10\%$ | 20 | — | 7,96 | 200 | 0,75 | 250 | B82498-B1152-+ |
| 1800 | $\triangleq K$ | 20 | — | 7,96 | 190 | 0,85 | 250 | B82498-B1182-+ |
| 2200 | | 20 | — | 7,96 | 130 | 1,7 | 200 | B82498-B1222-+ |
| 2700 | | 20 | — | 7,96 | 120 | 2,0 | 200 | B82498-B1272-+ |
| 3300 | | 20 | — | 7,96 | 100 | 3,3 | 200 | B82498-B1332-+ |
| 3900 | | 20 | — | 7,96 | 95 | 3,6 | 150 | B82498-B1392-+ |
| 4700 | | 20 | — | 7,96 | 90 | 3,8 | 150 | B82498-B1472-+ |

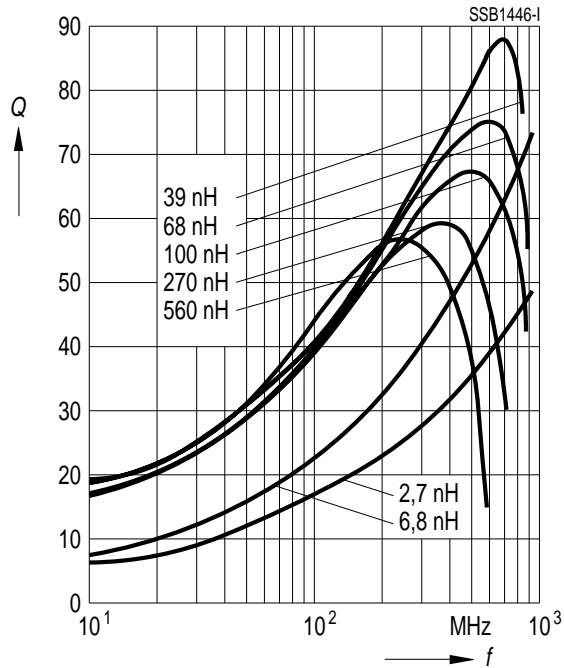
1) Closer tolerances upon request.

2) Replace the + by the code letter for the required inductance tolerance.

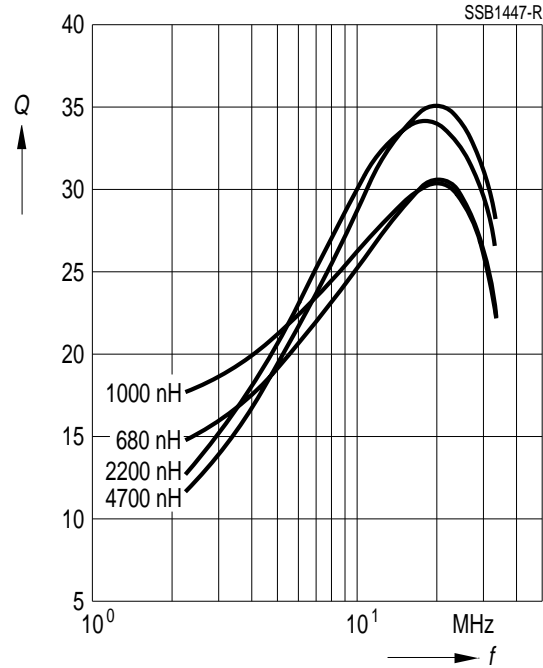
For reel size \varnothing 330 mm append code number »8«. Example: B82498-B1681-K8



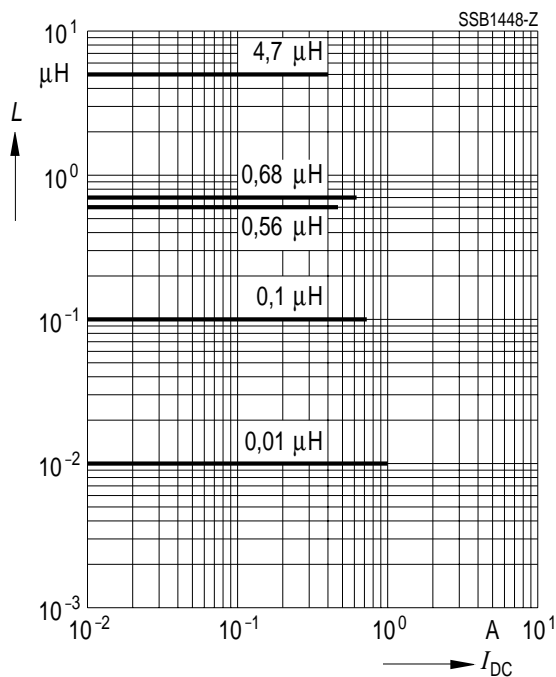
Q factor (ceramic core)
versus frequency f
measured with RF LCR meter
HP 4286A



Q factor (ferrite core)
versus frequency f
measured with RF LCR meter
HP 4286A



Inductance L versus dc load current I_{DC}
measured with RF LCR meter HP 4275A



Current derating I_{op}/I_R
versus ambient temperature T_A

