



**High-current version**

**Size 1812 (EIA) or 4532 (IEC)**

**Rated inductance 1,0 to 330  $\mu$ H**

**Rated current 110 to 1100 mA**



**Construction**

- Ferrite core
- US-welded winding
- Flame-retardant encapsulation

**Features**

- High resonance frequency
- Suitable for reflow (IR and vapor phase) and wave soldering

**Applications**

- Filtering of supply voltages, coupling, decoupling
- DC/DC converters
- Automotive electronics
- Telecommunications

**Terminals**

- Silver-plated
- 1–2  $\mu$ m Cu, 4–6  $\mu$ m Ag
- Base material CuSn6
- Suitable for soldering and conductive adhesion
- No leaching during wave soldering

**Marking**

Marking on component:

Manufacturer and series mark »–H«

$L$  value (in nH) and tolerance of  $L$  value (coded),  
date of manufacture (coded)

Minimum data on reel:

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

**Delivery mode**

12-mm blister tape, wound on 330-mm  $\varnothing$  reel

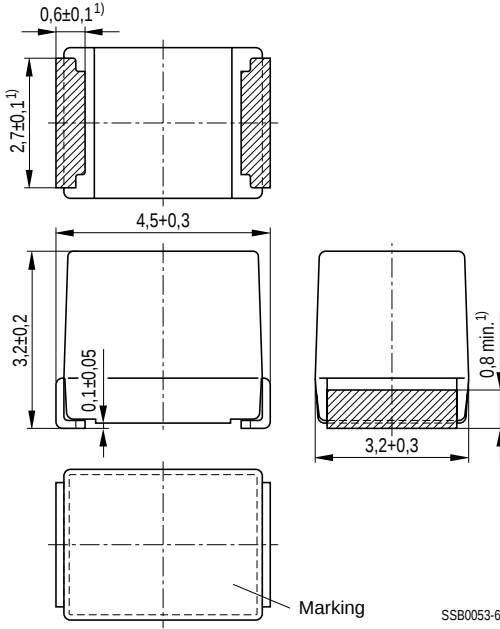
For details on taping, packing and packing units [see page 153](#)



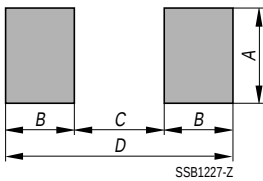
### General technical data

|                                                |                                                                                                                                                                    |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated inductance $L_R$                         | Measured with impedance analyzer HP 4194A at frequency $f_L$                                                                                                       |
| Q factor $Q_{\min}$                            | Measured with impedance analyzer HP 4194A at frequency $f_Q$                                                                                                       |
| Rated current $I_R$                            | Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 40\text{ K}$ at rated temperature of $85^\circ\text{C}$ |
| Self-resonance frequency $f_{\text{res, min}}$ | Measured with network analyzer HP 8753                                                                                                                             |
| DC resistance $R_{\max}$                       | Measured at $20^\circ\text{C}$ ambient temperature, measuring current $< I_R$                                                                                      |
| Climatic category                              | In accordance with IEC 60068-1<br>55/125/56 ( $-55^\circ\text{C}/+125^\circ\text{C}/56$ days damp heat test)                                                       |
| Solderability                                  | In accordance with IEC 60062-2-58<br>( $215 \pm 3^\circ\text{C}$ , ( $3 \pm 0,3$ ) s<br>Wetting of soldering area: $\geq 95\%$                                     |
| Resistance to soldering heat                   | In accordance with IEC 60068-2-20<br>$260^\circ\text{C}$ , 10 s<br>$\Delta L/L \leq \pm 3\%$                                                                       |
| Permissible PCB bending                        | 2 mm (100 mm long standard PCB)                                                                                                                                    |
| Weight                                         | Approx. 130 mg                                                                                                                                                     |

## Dimensional drawing



## Layout recommendation



| Dimensions (mm)  | A   | B   | C   | D   |
|------------------|-----|-----|-----|-----|
| Wave soldering   | 3,1 | 1,7 | 3,2 | 6,6 |
| Reflow soldering | 3,6 | 1,3 | 3,2 | 5,8 |

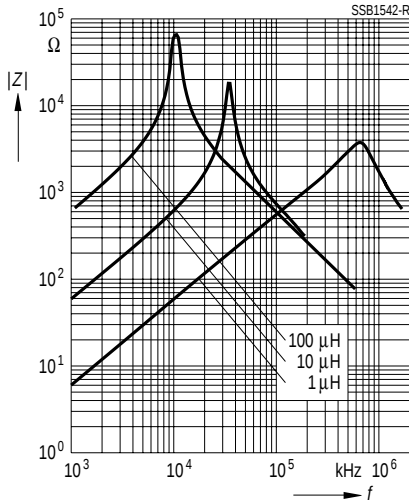
1) Soldering area, silver-plated

# Characteristics and ordering codes

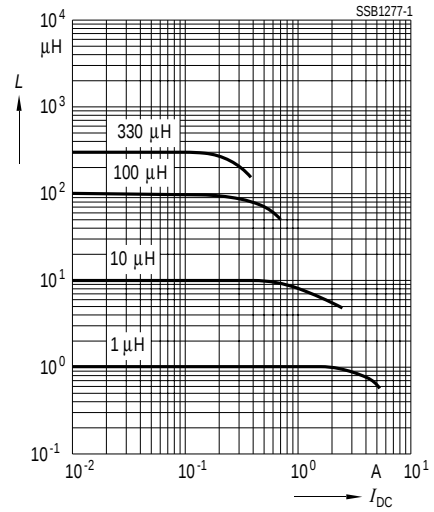
| $L_R^{1)}$<br>$\mu\text{H}$ | Toler-<br>ance               | $f_L$<br>MHz | $Q_{\min}$ | $f_Q$<br>MHz | $I_R$<br>mA | $R_{\max}$<br>$\Omega$ | $f_{\text{res, min}}$<br>MHz | Ordering code  |
|-----------------------------|------------------------------|--------------|------------|--------------|-------------|------------------------|------------------------------|----------------|
| 1,0                         | $\pm 10\%$<br>$\triangleq K$ | 1            | 20         | 7,96         | 1100        | 0,11                   | 260                          | B82432-H1102-K |
| 1,5                         |                              | 1            | 20         | 7,96         | 1000        | 0,14                   | 175                          | B82432-H1152-K |
| 2,2                         |                              | 1            | 20         | 7,96         | 900         | 0,18                   | 95                           | B82432-H1222-K |
| 3,3                         |                              | 1            | 20         | 7,96         | 820         | 0,22                   | 80                           | B82432-H1332-K |
| 4,7                         |                              | 1            | 20         | 7,96         | 740         | 0,27                   | 40                           | B82432-H1472-K |
| 6,8                         |                              | 1            | 20         | 7,96         | 660         | 0,35                   | 36                           | B82432-H1682-K |
| 10                          |                              | 1            | 25         | 2,52         | 600         | 0,50                   | 25                           | B82432-H1103-K |
| 15                          |                              | 0,1          | 25         | 2,52         | 480         | 0,70                   | 20                           | B82432-H1153-K |
| 22                          |                              | 0,1          | 25         | 2,52         | 430         | 0,90                   | 18                           | B82432-H1223-K |
| 33                          |                              | 0,1          | 25         | 2,52         | 350         | 1,4                    | 15                           | B82432-H1333-K |
| 47                          |                              | 0,1          | 25         | 2,52         | 310         | 1,9                    | 11,5                         | B82432-H1473-K |
| 68                          |                              | 0,1          | 25         | 2,52         | 230         | 2,6                    | 10,0                         | B82432-H1683-K |
| 100                         |                              | 0,1          | 25         | 0,796        | 180         | 4,0                    | 8,0                          | B82432-H1104-K |
| 150                         |                              | 0,1          | 25         | 0,796        | 150         | 6,1                    | 6,5                          | B82432-H1154-K |
| 220                         |                              | 0,1          | 25         | 0,796        | 130         | 7,5                    | 4,5                          | B82432-H1224-K |
| 330                         |                              | 0,1          | 25         | 0,796        | 110         | 11,0                   | 3,5                          | B82432-H1334-K |

1) Further E 12 ratings upon request.

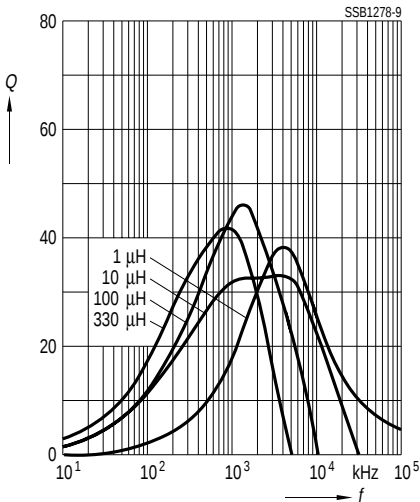
Impedance  $|Z|$   
versus frequency  $f$   
measured with impedance analyzer  
HP 4291A



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



Q factor versus frequency  $f$   
measured with impedance analyzer  
HP 4194A



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

