

**SMD**

**Size 2220 (EIA) or 5650 (IEC)**  
**Rated inductance 1 to 10000  $\mu$ H**  
**Rated current 25 to 1800 mA**

**Construction**

- Upright ferrite drum core
- Laser-welded winding
- Flame-retardant encapsulation

**Features**

- High current handling capability
- High inductance ratings
- Suitable for reflow (IR and vapor phase) and wave soldering

**Applications**

- Filtering of supply voltages, coupling, decoupling
- DC/DC converters
- Automotive electronics
- Telecommunications  
(e.g. blocking filter for 12- and 16-kHz counting pulses)

**Terminals**

- Electro-plated
- 0,4  $\mu$ m Cu; 1–2  $\mu$ m Ag; 5–7  $\mu$ m Sn
- Base material CuSn6
- No leaching during wave soldering

**Marking**

Marking on component:

Manufacturer,  
 $L$  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**

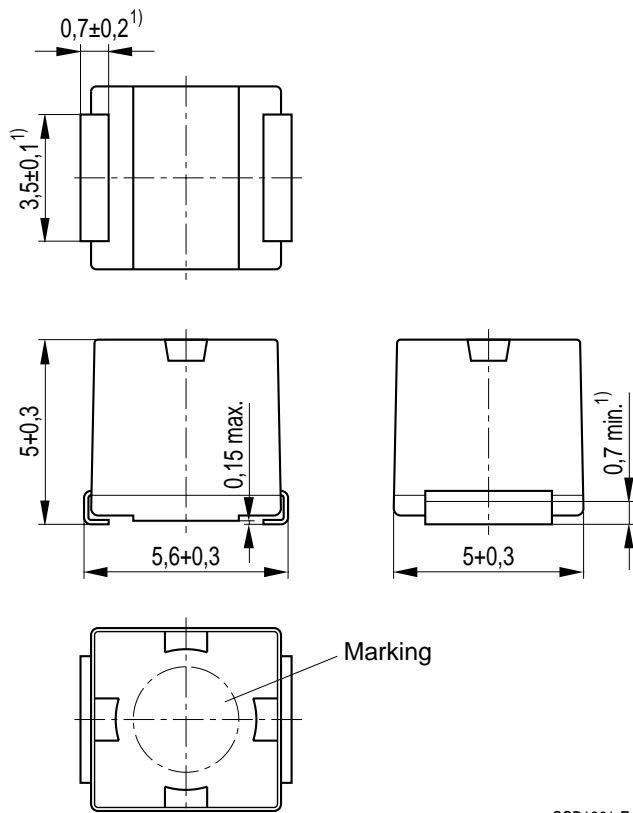
12-mm blister tape, wound on 330-mm  $\varnothing$  reel

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

**General technical data**

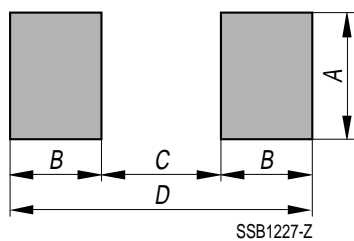
Rated inductance $L_R$	Measured with impedance analyzer HP 4194A at frequency $f_L$
Q factor $Q_{\min}$	Measured with impedance analyzer HP 4194A at frequency $f_Q$
Rated current $I_R$	Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 20\text{ K}$ at rated temperature of $105^\circ\text{C}$
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753
DC resistance $R_{\text{max}}$	Measured at $20^\circ\text{C}$ 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 ( $215 \pm 3$ ) $^\circ\text{C}$ , ( $3 \pm 0,3$ ) s Wetting of soldering area: $\geq 90\%$
Resistance to soldering heat	In accordance with IEC 60068-2-20 $260^\circ\text{C}$ , 10 s $\Delta L/L \leq \pm 3\%$
Permissible PCB bending	2 mm (100 mm long standard PCB)
Weight	Approx. 400 mg

**Dimensional drawing**



SSB1261-E

**Layout recommendation**



SSB1227-Z

Dimensions (mm)	A	B	C	D
Wave/reflow soldering	4,5	2,0	4,0	8,0

1) Soldering area, tinned

**Characteristics and ordering codes**

$L_R$ μH	Tolerance	$Q_{min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{max}$ Ω	$f_{res, min}$ MHz	Ordering code <sup>1)</sup>
1,0	± 10 % ≙ K	10	7,96	1800	0,024	95	B82442-A1102-K
1,2		10	7,96	1700	0,028	70	B82442-A1122-K
1,5		10	7,96	1600	0,032	55	B82442-A1152-K
1,8		10	7,96	1400	0,040	47	B82442-A1182-K
2,2		10	7,96	1300	0,048	42	B82442-A1222-K
2,7		10	7,96	1200	0,056	37	B82442-A1272-K
3,3		10	7,96	1120	0,064	34	B82442-A1332-K
3,9		10	7,96	1050	0,072	32	B82442-A1392-K
4,7		10	7,96	950	0,088	29	B82442-A1472-K
5,6		10	7,96	880	0,104	26	B82442-A1562-K
6,8	10	7,96	810	0,120	24	B82442-A1682-K	
8,2	10	7,96	750	0,144	22	B82442-A1822-K	
10	± 5 % ≙ J	10	2,52	690	0,168	19	B82442-A1103-K
12		10	2,52	630	0,20	17	B82442-A1123-K
15		10	2,52	580	0,24	16	B82442-A1153-K
18		10	2,52	530	0,29	14	B82442-A1183-K
22		10	2,52	480	0,35	13	B82442-A1223-K
27		10	2,52	440	0,42	11,5	B82442-A1273-K
33		± 10 % ≙ K	10	2,52	400	0,50	10,5
39	10		2,52	370	0,58	9,5	B82442-A1393-+
47	10		2,52	340	0,68	8,5	B82442-A1473-+
56	10		2,52	310	0,80	7,8	B82442-A1563-+
68	10		2,52	290	0,96	7,0	B82442-A1683-+
82	10	2,52	270	1,12	6,4	B82442-A1823-+	

1) Replace the + by the code letter for the required inductance tolerance (see table).

**Characteristics and ordering codes (continued)**

$L_R$ μH	Tolerance	$Q_{min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{max}$ Ω	$f_{res, min}$ MHz	Ordering code <sup>1)</sup>
100	± 5 %	20	0,796	250	1,28	6,0	B82442-A1104-+
120	△ J	20	0,796	230	1,52	5,4	B82442-A1124-+
150	± 10 %	20	0,796	210	1,76	4,8	B82442-A1154-+
180	△ K	20	0,796	190	2,24	4,4	B82442-A1184-+
220		20	0,796	170	2,72	3,9	B82442-A1224-+
270		20	0,796	155	3,36	3,6	B82442-A1274-+
330		20	0,796	140	3,92	3,2	B82442-A1334-+
390		20	0,796	130	4,64	2,9	B82442-A1394-+
470		20	0,796	120	5,60	2,6	B82442-A1474-+
560		20	0,796	110	6,80	2,4	B82442-A1564-+
680		20	0,796	100	8,00	2,2	B82442-A1684-+
820		20	0,796	90	10,4	2,0	B82442-A1824-+
1000		30	0,252	85	12,0	1,8	B82442-A1105-+
1200		30	0,252	75	13,6	1,5	B82442-A1125-+
1500		30	0,252	70	16,0	1,4	B82442-A1155-+
1800		30	0,252	60	24,0	1,3	B82442-A1185-+
2200		30	0,252	55	28,0	1,2	B82442-A1225-+
2700		30	0,252	45	44,0	1,1	B82442-A1275-+
3300		30	0,252	40	48,0	1,0	B82442-A1335-+
3900		30	0,252	38	56,0	1,0	B82442-A1395-+
4700		30	0,252	36	62,4	0,9	B82442-A1475-+
5600		30	0,252	33	68,0	0,8	B82442-A1565-+
6800		30	0,252	30	88,0	0,7	B82442-A1685-+
8200		30	0,252	28	100	0,6	B82442-A1825-+
10000		30	0,0796	25	120	0,5	B82442-A1106-+

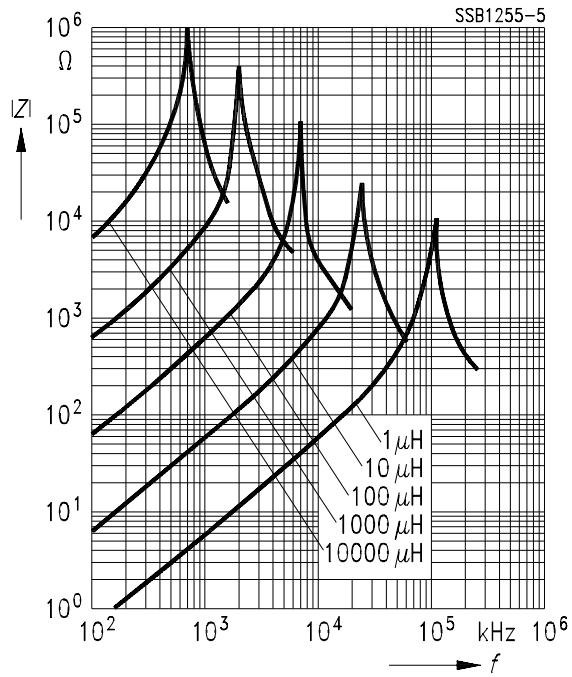
For telecommunications in blocking filter for 12- and 16-kHz counting pulses

980	± 3 %	8	0,016	85	15	1,8	B82442-A1984-A
1450	△ A	8	0,016	70	20	1,4	B82442-A1145-A500
2600		6	0,012	45	43	1,1	B82442-A1265-A
3050		8	0,016	45	45	0,9	B82442-A1305-A500
5330		6	0,012	34	66	0,8	B82442-A1535-A300

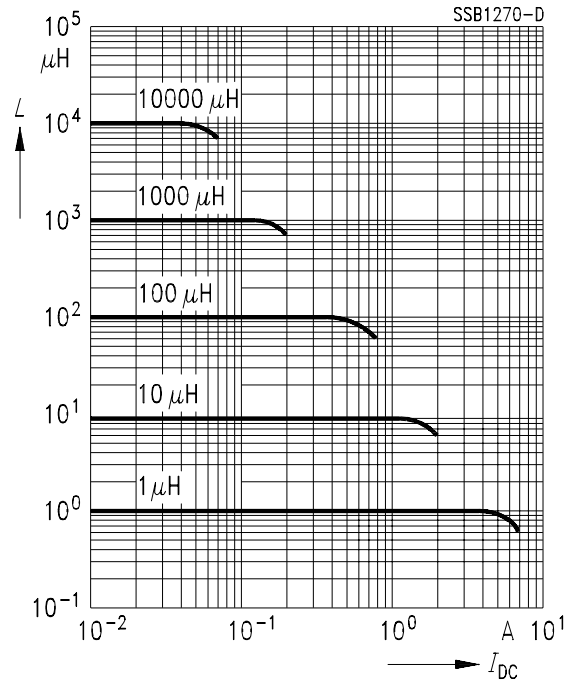
1) Replace the + by the code letter for the required inductance tolerance (see table).



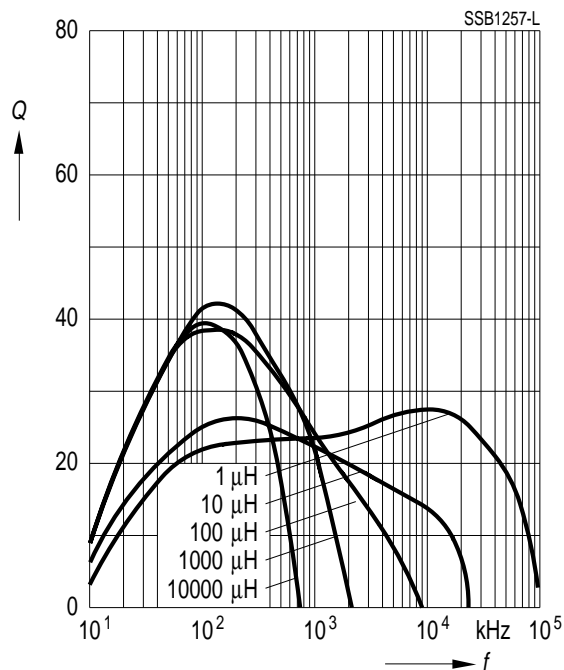
Impedance  $|Z|$   
versus frequency  $f$   
measured with impedance analyzer  
HP 4191A / HP 4194A



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



Q factor versus frequency  $f$   
measured with impedance analyzer  
HP 4191A / HP 4194A



Current derating  $I_{\text{op}}/I_{\text{R}}$   
versus ambient temperature  $T_{\text{A}}$

