



**Rated voltage 42 VAC/80 VDC**  
**Rated current 150 to 300 mA**  
**Rated inductance 11 to 100  $\mu$ H**

### Construction

- Current-compensated double choke with ferrite I core
- Bifilar winding (B82789C0...)
- Sector winding (B82789S0...)

### Features

- Suitable for reflow soldering
- For gold-plated terminals conductive adhesion possible

### Function

- B82789C0:  
Suppression of asymmetrical interference coupled in on lines, whereas data signals up to some MHz can pass unaffectedly
- B82789S0:  
Suppression of asymmetrical (by  $L_R$ ) and symmetrical interference (by  $L_S$ ) coupled in on lines. The high-frequency portions of the symmetrical data signal are decreased so far that EMC problems can be significantly reduced

### Applications

- Automotive applications, e.g. CAN bus
- Industrial automation
- Telecommunications

### Terminals

Two versions: Gold plated and lead-free tinned

### Marking

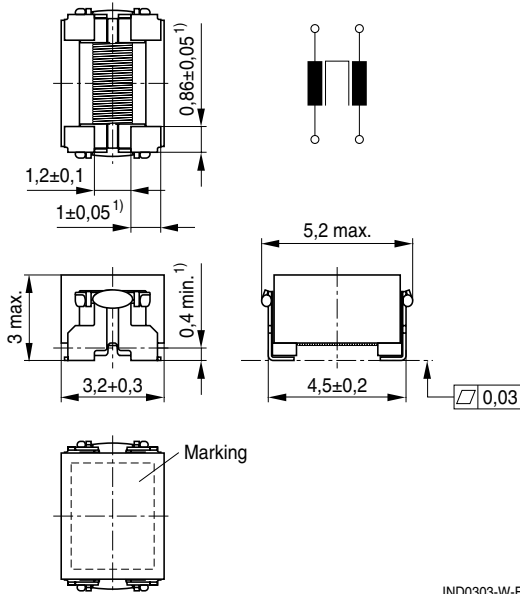
Marking on component:  
Manufacturer, bifilar or sector winding (coded), L value (in nH),  
date of manufacture (coded)

Minimum data on reel:  
Manufacturer, part number, ordering code, L value (in nH),  
quantity, date of packing

### Delivery mode

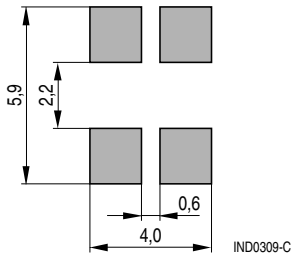
12-mm blister tape, reel packing (330-mm  $\varnothing$  reel), packing unit: 2500 pcs.  
Taping to IEC 60286-3. For details on taping and packing refer to data book "Chokes and Inductors", page 302.

Dimensional drawing



IND0303-W-E

Layout recommendation



1) Soldering area

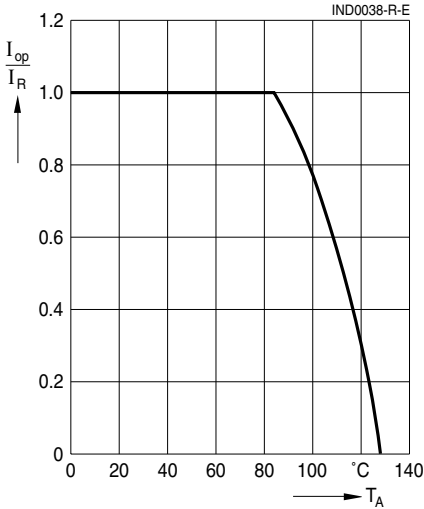

**Technical data and measuring conditions**

Rated voltage $V_R$	42 VAC (50/60 Hz) 80 VDC
Rated current $I_R$	Referred to 50 Hz and 85 °C ambient temperature
Rated inductance $L_R$	Measured with HP 4284A at 100 kHz and 0.1 mA
Inductance tolerance	-30/+50%
Inductance decrease $\Delta L/L_0$	<10% at DC magnetic bias with $I_R$
Stray inductance $L_S$	Measured with HP 4284A at 100 kHz and 5 mA
DC resistance $R_{max}$	Measured at 20 °C ambient temperature
Solderability (IEC 60068-2-58)	(235 ± 3) °C, (2 ± 0,3) s Wetting of soldering area ≥95%
Climatic category (IEC 60068-1)	55/125/56 (-55 °C/+125 °C/56 days damp heat test)
Weight	Approx. 0.16 g

**Characteristics and ordering codes**

$L_R$ μH	$L_{S, typ}$ μH	$I_R$ mA	$R_{max}$ mΩ	$V_{test}$ VDC, 2 s	Ordering code	
					gold-plated terminals	tinned terminals
11	0.06	300	250	250	B82789C0113N001	B82789C0113N002
22	0.10	250	580	250	B82789C0223N001	B82789C0223N002
22	3.0	250	580	250	B82789S0223N001	B82789S0223N002
51	0.10	250	550	250	B82789C0513N001	B82789C0513N002
100	0.25	150	1500	250	B82789C0104N001	B82789C0104N002

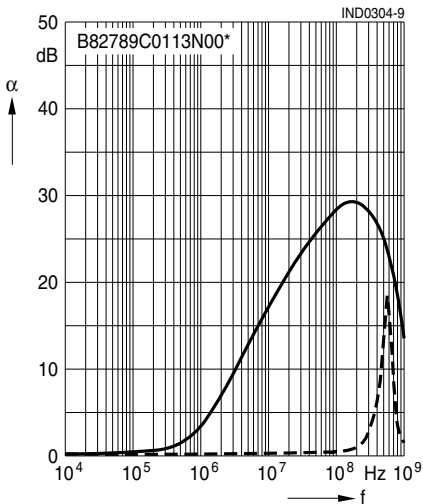
**Current derating**  $I_{op}/I_R$   
 versus ambient temperature  $T_A = 85\text{ °C}$



**Insertion loss**  $\alpha_e$  (typical values at  $Z = 50\ \Omega$ )

- asymmetrical, all branches in parallel (common mode)
- - - - - symmetrical (differential mode)

$L_R = 11\ \mu\text{H}$





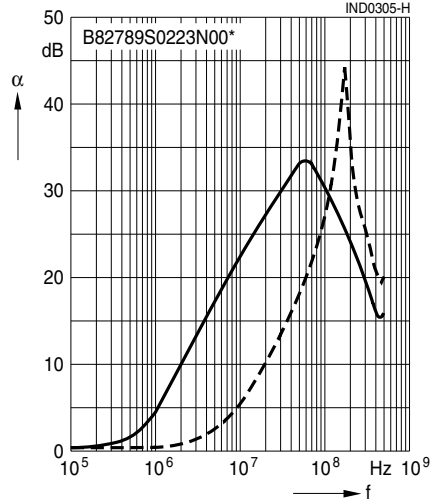
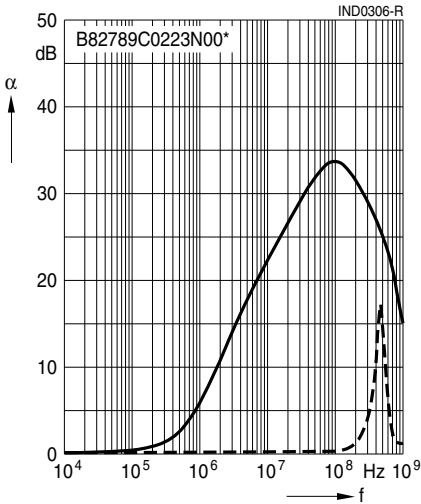
Insertion loss  $\alpha_e$  (typical values at  $Z = 50 \Omega$ )

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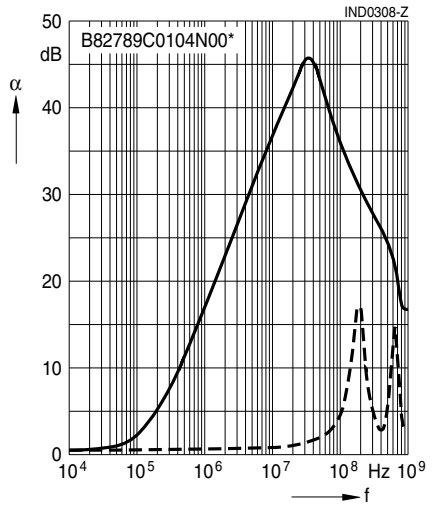
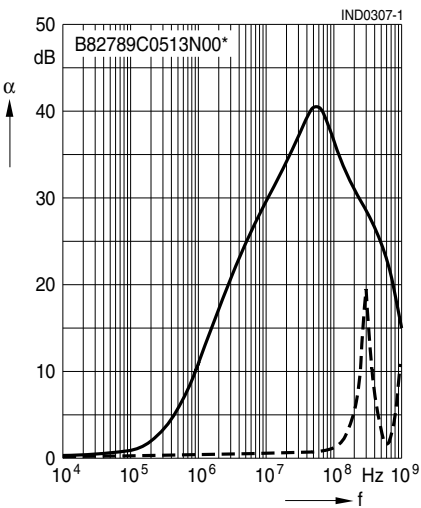
$L_R = 22 \mu\text{H}$  (bifilar winding)

$L_R = 22 \mu\text{H}$  (sector winding)



$L_R = 51 \mu\text{H}$

$L_R = 100 \mu\text{H}$





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