



Chokes for Data and Signal Lines

B82799

CAN Bus Choke, EIA 1812

SMD

Rated voltage 42 Vac/80 Vdc  
Rated current 100 mA  
Rated inductance 11 to 51  $\mu$ H



#### Construction

- Current-compensated ring core double choke with ferrite core
- Bifilar winding (B82799-C...)
- Sector winding (B82799-S...)

#### Features

- High performance
- Case flame-retardant as per UL 94 V-0
- Suitable for reflow soldering and conductive adhesion
- Operation up to 150°C

#### Applications

- B82799-C:  
Suppression of asymmetrical interference coupled in on lines, whereas data signals up to some MHz can pass unaffectedly
- B82799-S:  
Suppression of asymmetrical and symmetrical interference coupled in on lines. The high-frequency portions of the symmetrical data signal are decreased so far that EMC problems can be significantly reduced

#### Marking

Manufacturer, inductance value (coded),  
date of manufacture, coded (year, day of week, calendar week)

#### Delivery mode

Blister tape, reel packing  
For details on taping, packing and packing units [see page 302](#)



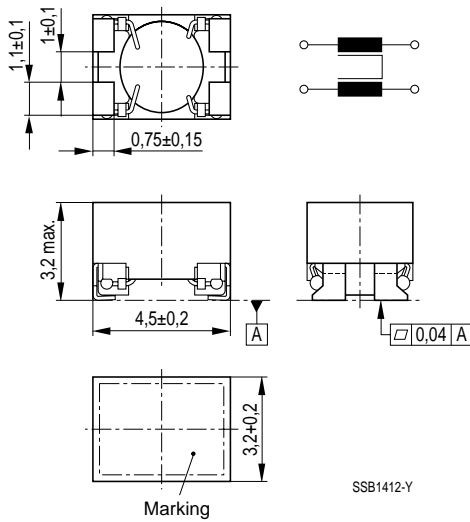
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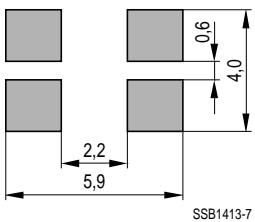
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Dimensional drawing



Layout recommendation





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**General technical data**

Rated voltage $V_R$	42 Vac (50/60 Hz) 80 Vdc
Rated current $I_R$	Referred to 50 Hz and 60 °C ambient temperature
Rated inductance $L_R$	Measured with HP 4275A at 100 kHz and 0,1 mA (specified per winding)
Inductance tolerance	± 30 %
Inductance decrease $\Delta L/L_0$	< 10 % at dc magnetic bias with $I_R$
Stray inductance $L_S$	Measured with HP 4275A. Measuring frequency at $L_R \leq 11 \mu\text{H} = 1 \text{ MHz}, 5 \text{ mA}$ $L_R > 11 \mu\text{H} = 100 \text{ kHz}, 5 \text{ mA}$
DC resistance $R_{\text{typ}}$	Typical values, measured at 20 °C ambient temperature
Solderability	(215 3) °C, (3 0,3) s wetting of soldering area ≥ 95 % in accordance with IEC 60068-2-58
Climatic category	40/125/56 (– 40 °C/+ 125 °C/56 days damp heat test) in accordance with EN 60068-1
Weight	Approx. 0,08 g

**Characteristics and ordering codes**

$L_R^{1)}$ μH	$L_S, \text{typ}$ nH	$I_R$ mA	$R_{\text{typ}}$ mΩ	$V_T$ Vdc, 2 s	Ordering code
11	45	100	150	250	B82799-C113-N1
22	1300	100	200	250	B82799-S223-N1
33	1800	100	250	250	B82799-S333-N1
51	2700	100	300	250	B82799-S513-N1

1) Types up to 2200 μH upon request.

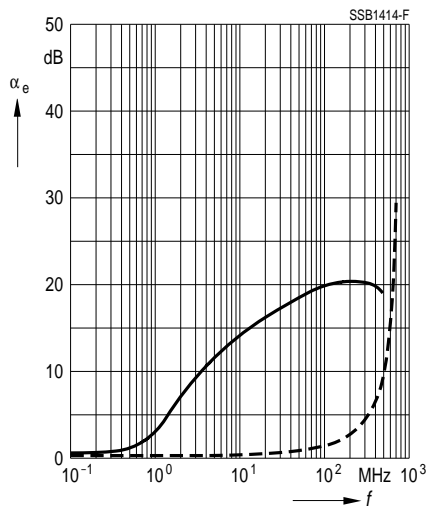


Insertion loss  $\alpha_e$  (typical values at  $Z = 50 \Omega$ )

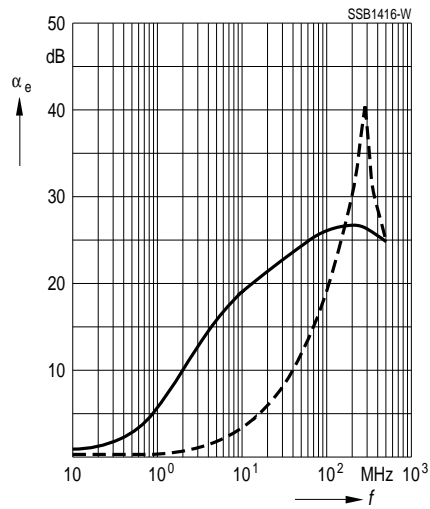
———— asymmetrical, all branches in parallel (common mode)

- - - - - symmetrical (differential mode)

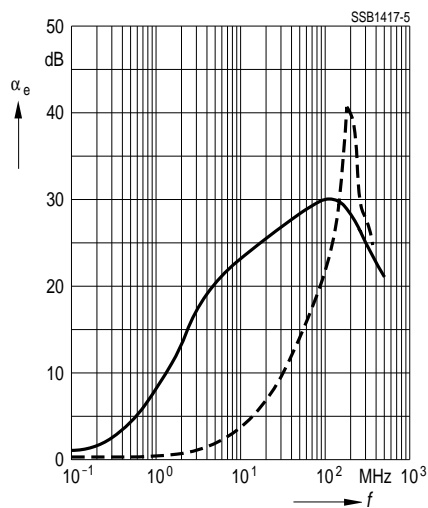
B82799-C113-N1



B82799-S223-N1



B82799-S333-N1



B82799-S513-N1

