



Rated voltage 42 VAC/80 VDC
Rated current 400 to 2500 mA
Rated inductance 0.005 to 4.7 mH



Construction

- Current-compensated ring core choke with ferrite core
- Bifilar winding (B82793C0*/K0*)
- Sector winding (B82793S0*/L0*)

Features

- High rated currents
- Reduced component height
- Case flame-retardant as per UL 94 V-0
- Suitable for reflow soldering

Applications

- B82793C0*/K0*:
Suppression of asymmetrical interference coupled in on lines, whereas data signals up to some MHz can pass unaffectedly.
- B82793S0*/L0*:
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.
- Industrial applications

Terminals

- Lead-free tinned

Marking

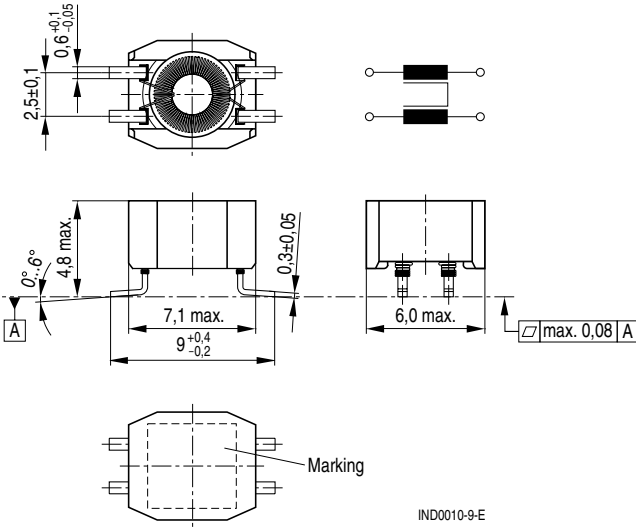
Manufacturer, ordering code (short form),
date of manufacture, coded (year, calendar week, day of week)

Delivery mode

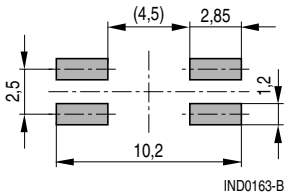
Blister tape, reel packing
For details on taping, packing and packing units see data book 2000 "Chokes and Inductors", page 302.



Dimensional drawing



Layout recommendation




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 60 °C ambient temperature
Rated inductance L_R (specified per winding)	Measured with HP 4275A Measuring frequency at $L \leq 1\text{mH} = 100\text{ kHz}, 0.1\text{ mA}$ $L > 1\text{ mH} = 10\text{ kHz}, 0.1\text{ mA}$
Inductance tolerance	$L \leq 0.47\text{ mH}: \pm 30\%$ $L > 0.47\text{ mH}: -30/+50\%$
Inductance decrease $\Delta L/L$	<10% at DC magnetic bias with I_R
Stray inductance L_S	Measured with HP 4275A Measuring frequency at $L \leq 11\mu\text{H} = 1\text{ MHz}, 5\text{ mA}$ $L > 11\mu\text{H} = 100\text{ kHz}, 5\text{ mA}$
DC resistance R_{typ}	Typical values, measured at 20 °C ambient temperature
Solderability	215 ± 3 °C, 3 ± 0.3 s wetting of soldering area $\geq 95\%$
Climatic category (IEC 60068-1)	40/125/56 (- 40 °C/+125 °C/56 days damp heat test)
Weight	Approx. 0.30 g

Characteristics and ordering codes

L_R mH	L_S , typ nH	I_R ¹⁾ mA	R_{typ} m Ω	V_{test} VDC, 2 s	Ordering code
0.005	50	1200	100	250	B82793C0502N201
0.006	50	2500	22	250	B82793K0602N201
0.006	400	2500	22	250	B82793L0602N201
0.011	50	800	120	250	B82793C0113N201
0.025	100	800	130	250	B82793C0253N201
0.025	1500	800	130	250	B82793S0253N201
0.051	150	800	160	250	B82793C0513N201
0.051	2000	800	160	250	B82793S0513N201
0.10	180	500	200	250	B82793C0104N201
0.47	200	700	200	750	B82793C0474N215
1.0	250	700	200	750	B82793C0105N265
2.2	250	500	400	750	B82793C0225N265
4.7	300	400	550	750	B82793C0475N265

Sample kit available

Ordering code: B82793X001

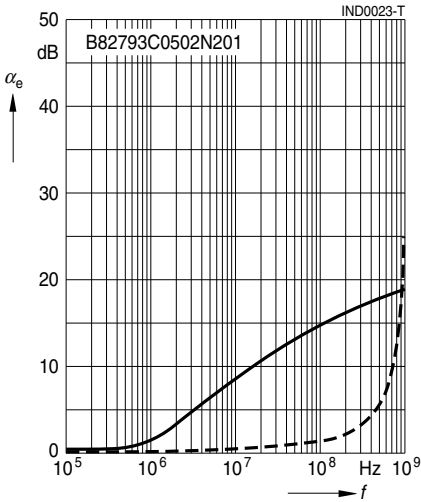
1) Types with higher rated current upon request



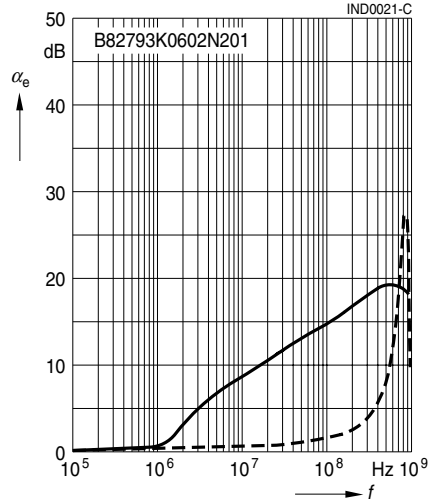
Insertion loss α_e (typical values at $Z = 50 \Omega$)

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

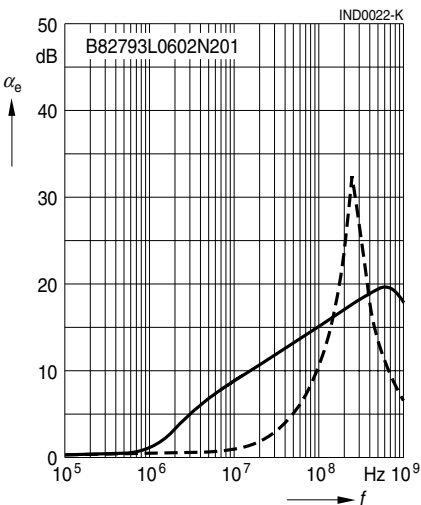
$L_R = 0.005 \text{ mH}$



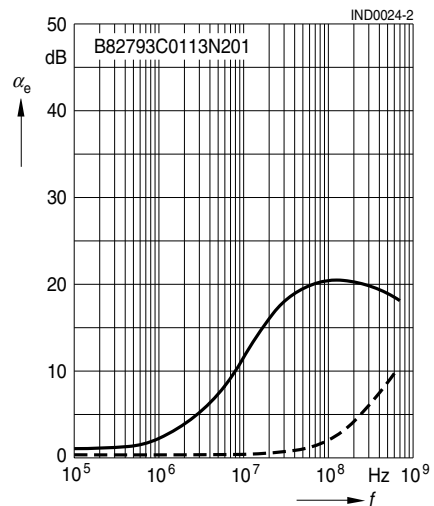
$L_R = 0.006 \text{ mH (low } L_S)$



$L_R = 0.006 \text{ mH (high } L_S)$



$L_R = 0.011 \text{ mH}$



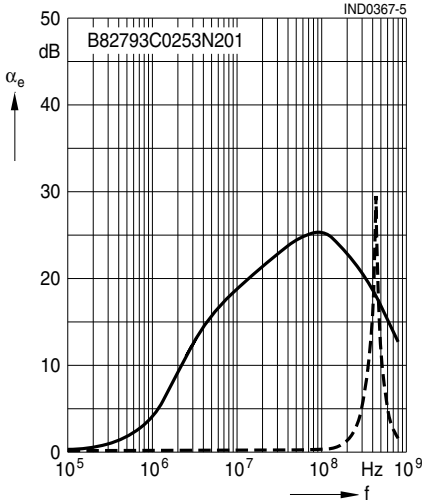


Insertion loss α_e (typical values at $Z = 50 \Omega$)

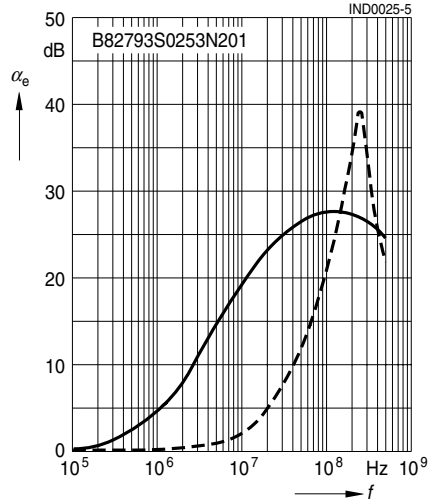
———— asymmetrical, all branches in parallel (common mode)

- - - - - symmetrical (differential mode)

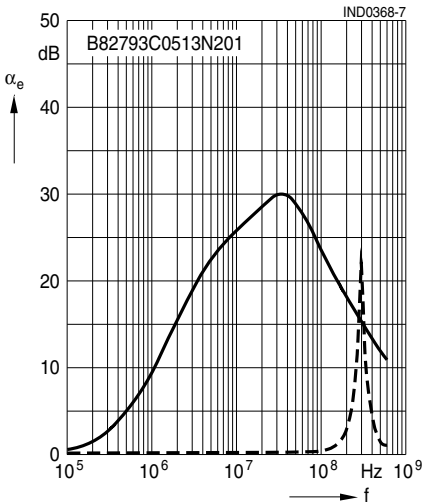
$L_R = 0.025 \text{ mH}$ (low L_S)



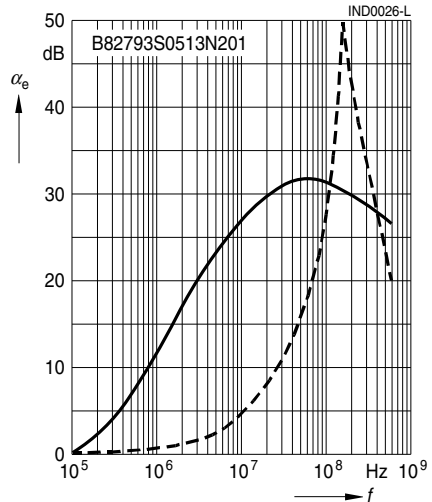
$L_R = 0.025 \text{ mH}$ (high L_S)



$L_R = 0.051 \text{ mH}$ (low L_S)



$L_R = 0.051 \text{ mH}$ (high L_S)

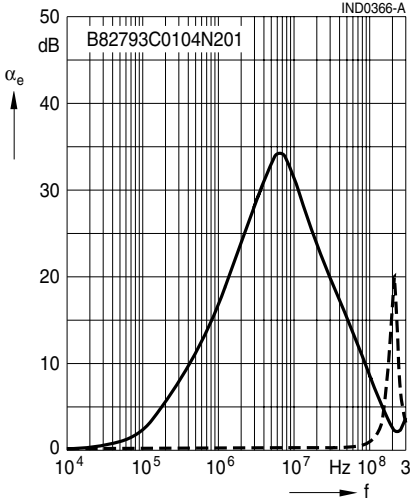




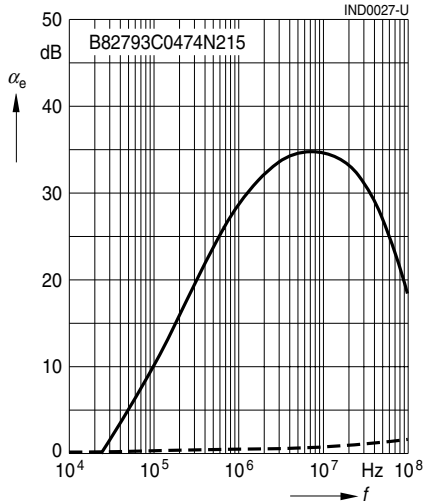
Insertion loss α_e (typical values at $Z = 50 \Omega$)

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

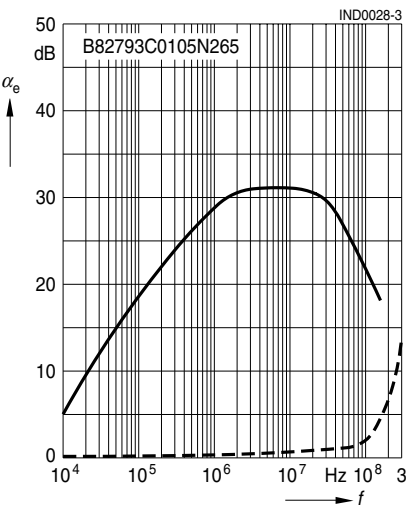
$L_R = 0.10 \text{ mH}$



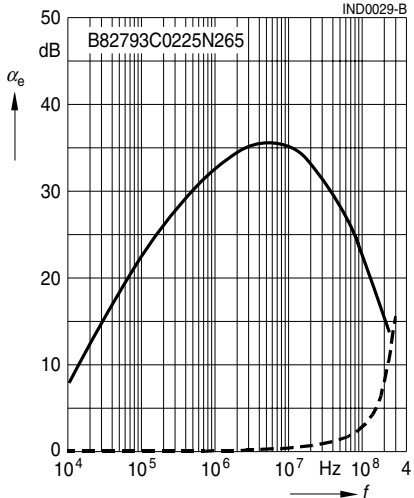
$L_R = 0.47 \text{ mH}$



$L_R = 1.0 \text{ mH}$



$L_R = 2.2 \text{ mH}$

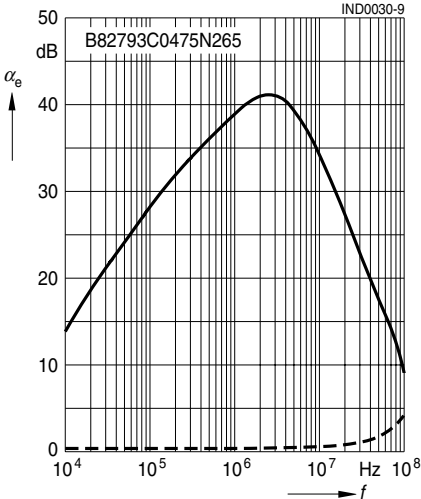




Insertion loss α_e (typical values at $Z = 50 \Omega$)

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

$L_R = 4.7 \text{ mH}$



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