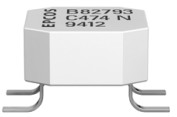
EPCOS

Chokes for data and signal lines	B82793C0*/K0*
Double chokes	**B82793S0*/L0***

SMD

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, calender 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.

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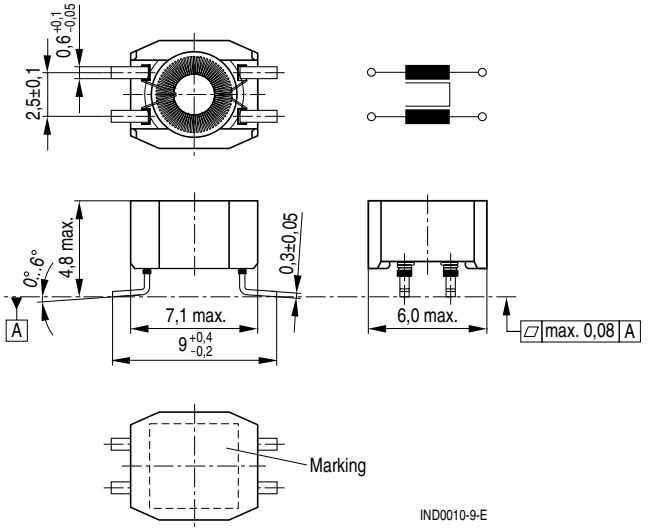
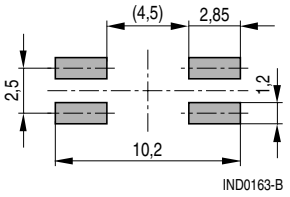
Dimensional drawing



Layout recommendation



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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 ≤1mH = 100 kHz, 0.1 mA L >1 mH = 10 kHz, 0.1 mA
Inductance tolerance	L ≤0.47 mH: ± 30% L >0.47 mH: –30/+50%
Inductance decrease ΔL/L	<10% at DC magnetic bias with I_R
Stray inductance L_S	Measured with HP 4275A Measuring frequency at L ≤11µH = 1 MHz, 5 mA L >11 µH = 100 kHz, 5 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 ≥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} mΩ	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) Tyes with higher rated current upon request

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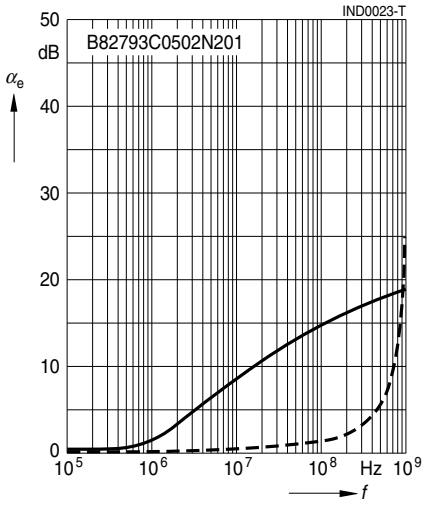
Insertion loss α_e (typical values at $Z = 50\ \Omega$)

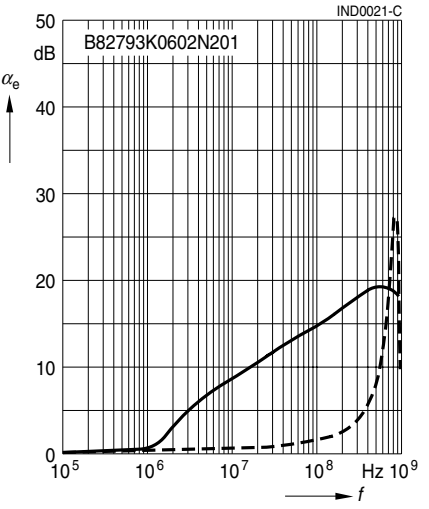
asymmetrical, all branches in parallel (common mode)

symmetrical (differential mode)

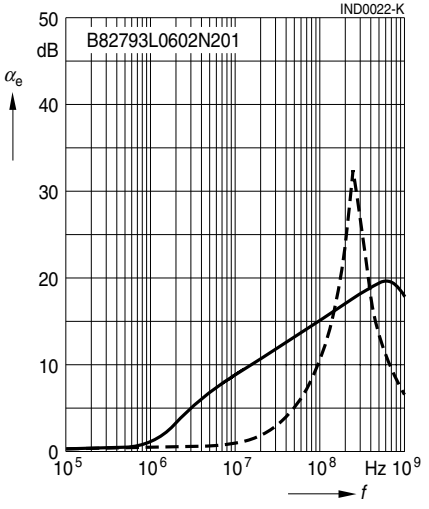
L_R = 0.005 mH



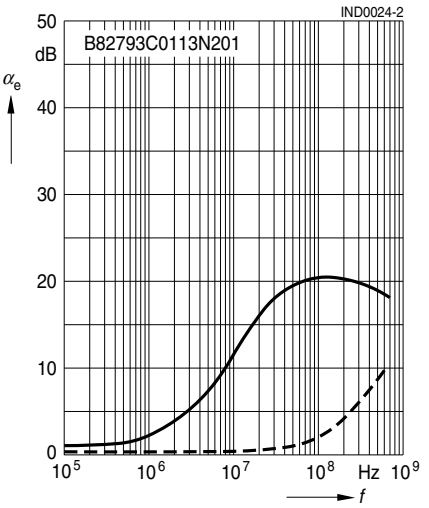
L_R = 0.006 mH (low L_S)



L_R = 0.006 mH (high L_S)



L_R = 0.011 mH



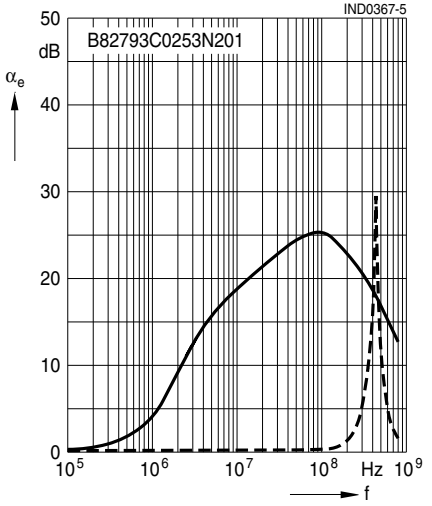
SMD

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

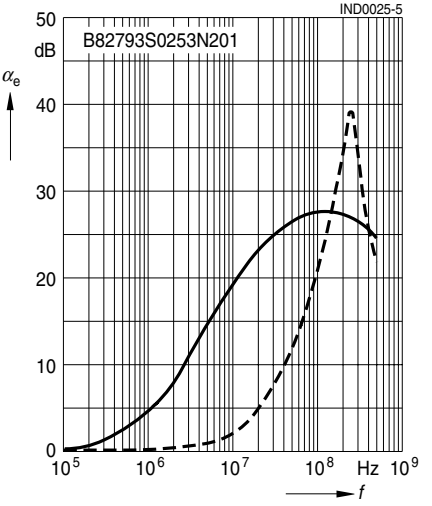
——— asymmetrical, all branches in parallel (common mode)

- - - - - - - symmetrical (differential mode)

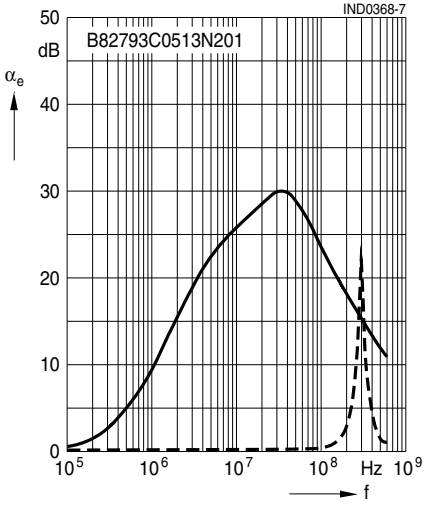
L_R = 0.025 mH (low L_S)



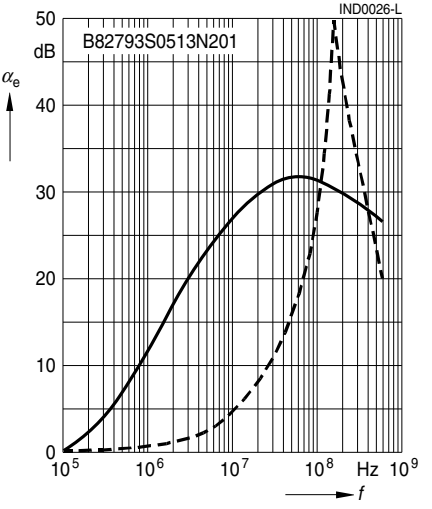
L_R = 0.025 mH (high L_S)



L_R = 0.051 mH (low L_S)



L_R = 0.051 mH (high L_S)



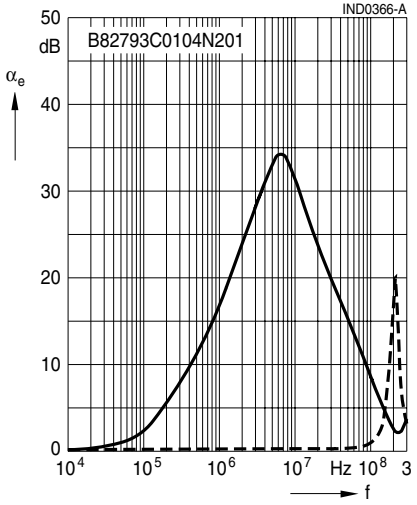
SMD

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

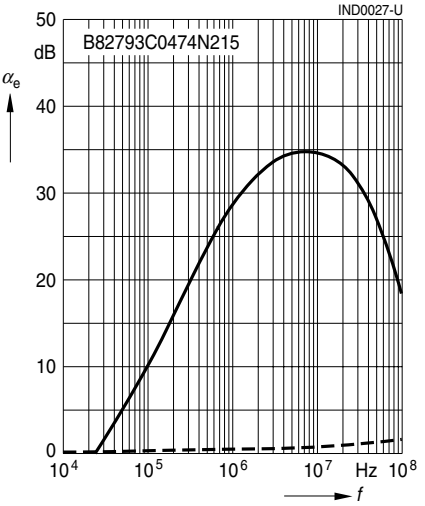
asymmetrical, all branches in parallel (common mode)

symmetrical (differential mode)

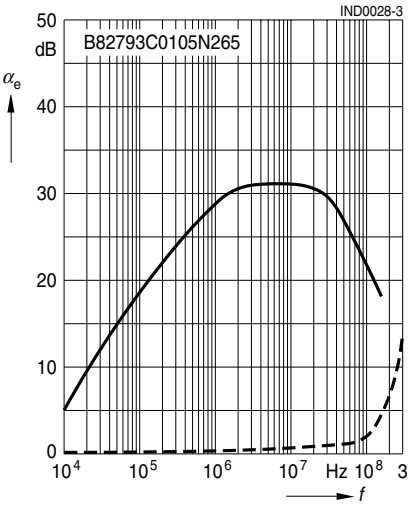
L_R = 0.10 mH



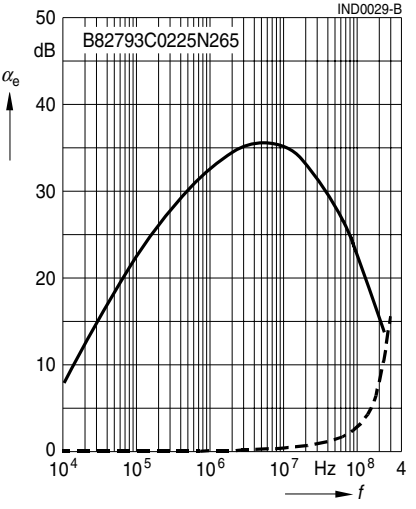
L_R = 0.47 mH



L_R =1.0 mH



L_R = 2.2 mH



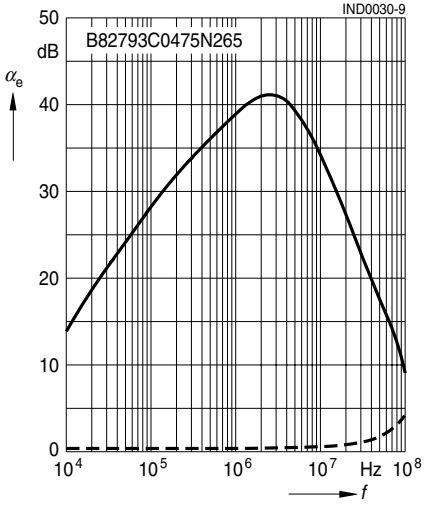
SMD

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

asymmetrical, all branches in parallel (common mode)

symmetrical (differential mode)

$L_R = 4.7$ mH



Published by EPCOS AG
Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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