

**CHIP BEADS [N-ZP · N-ZEP · N-ZPS · N-ZL · N-Z · N-ZA · N-ZE Series]**

The N-ZP,N-ZEP,N-ZPS,N-ZL,N-Z,N-ZA,N-ZE series are called Chip Beads and used for EMI suppression.The chip beads suppress noise by impedance while increases along with frequencies. Especially at high frequencies, the chip beads can reduce high frequency noise elements without affecting transmission signals by an increase of resistance elements due to high frequency loss of chip beads.

**■ Outline of chip beads for signal line**

Chip Beads for electric current line are the Rdc product that considerably increase the allowable electric current while keeping a function of reducing noise, and make countermeasures for noise possible in electric power source line such as IC. As a characteristics of impedance, they can effectively reduce/prevent the transmission of noises from electric power source line and leaks to its power source line when mounted in tandem in the line. The product has two types of N-ZP(~2.5A) / N-ZEP(~3.5A) and N-ZPS(~6A) according to the capacity of electric power source line.

**Chip beads for power source line lineup**

		Size		
		1608	2012	3216
Material-Type	N-ZP Series ~2.5A	N1608ZP600T15 N1608ZP121T10 N1608ZP221T15	N2012ZP600T25 N2012ZP121T25 N2012ZP221T20 N2012ZP301T20 N2012ZP501T10	N3216ZP500T25 N3216ZP121T25 N3216ZP501T25
	N-ZEP Series ~3.5A	N1608ZEP800T35 N1608ZEP221T10		
	N-ZPS Series ~6A		N2012ZPS600T50 N2012ZPS800T50 N2012ZPS121T50	N3216ZPS500T60

**■ Outline of chip beads for signal line**

Chip Beads are surface-mount devices that boast wide impedance characteristics usually obtained by a range of chip beads from chip beads to troidal chips. Having a totally monolithic structure, they can reduce noise in the equipment when mounted in series in its noise inducing area. To meet requirements in various situations, these chip beads use four different resistance elements(R),and come in sizes from 1608 to 3216.

**Chip beads for signal line lineup**

		Size		
		1608	2012	3216
Material-Type	SUPER LOW-LOSS N-ZL Series	N1608ZL500T02 N1608ZL800T02 N1608ZL121T02 N1608ZL221T01 N1608ZL471T01	N2012ZL500T03 N2012ZL800T03 N2012ZL121T03 N2012ZL221T02 N2012ZL471T01	
	LOW-LOSS N-Z Series	N1608Z300T01 N1608Z800T01 N1608Z121T01 N1608Z301T01 N1608Z601T01 N1608Z102T01	N2012Z260T06 N2012Z800T03 N2012Z121T03 N2012Z221T02 N2012Z301T02 N2012Z601T02 N2012Z102T01 N2012Z202T01	
	HIGH-LOSS N-Z,ZA Series	N1608ZA300T01 N1608ZA800T01 N1608ZA121T01 N1608ZA221T01 N1608ZA331T01 N1608ZA601T01 N1608ZA102T01 N1608ZA202T01	N2012ZA400T06 N2012ZA800T03 N2012ZA121T03 N2012ZA221T02 N2012ZA331T01 N2012ZA601T01 N2012ZA102T01 N2012ZA202T01	N3216Z800T01 N3216Z151T01 N3216Z501T01 N3216Z122T01 N3216Z202T01
	SUPER HIGH-LOSS N-ZE Series	N1608ZE101T01 N1608ZE221T01 N1608ZE471T01 N1608ZE681T01	N2012ZE101T01 N2012ZE221T01 N2012ZE471T01 N2012ZE681T01 N2012ZE102T01 N2012ZE252TR5	

**■ Features of each series**

- N-ZL series  
N-ZL series has the impedance characteristic that is high Q by extremely keeping a crossing of a reactance elements(X) and a resistance elements(R) a high frequency. It is suitable for noise control of frequency band area of 200MHz - 500MHz.
- N-Z series  
N-Z series has high impedance at a comparatively wide frequency band level. It is suitable for noise control of frequency band area of 100MHz - 300MHz.
- N-ZA series  
N-ZA series suppresses a reactance elements(X) and restrains a distortion of a signal wave pattern. It prevents a quality fall of a digital signal wave pattern and controls a high frequency noise.
- N-ZE series  
N-ZE series extremely suppresses a reactance elements(X) and controls a crossing of R and X in less than 10MHz. It reduces noise elements of a wave pattern by converting them into heat with pure resistance elements of impedance.

**Noise Ranges and Compatible chip beads**

