

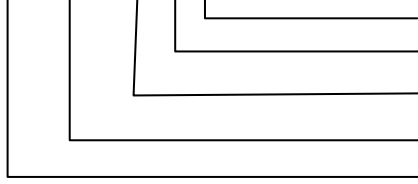
MULTILAYER CHIP BEAD ARRAYS / MCA TYPE

APPLICATIONS

- ◆ Noise elimination for four I/O lines of notebook PCs, digital TVs and VTRs, printers, hard disk drives, personal computers and other general consumer and computers products.

ORDERING CODE

MCA 3216 - 300 □-N

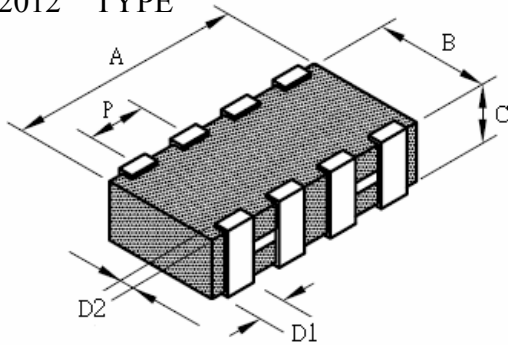


Note: lead-free
Tolerance (Y;±25%)
Impedance
Dimension (AxB)
Product Symbol

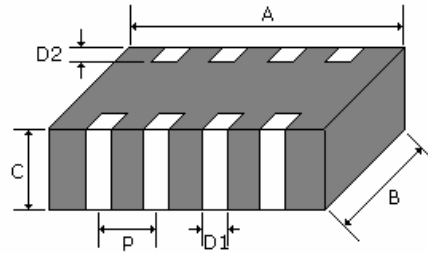


SHAPE

MCA2012 TYPE



MCA3216 TYPE



DIMENSIONS UNIT: mm (inch)

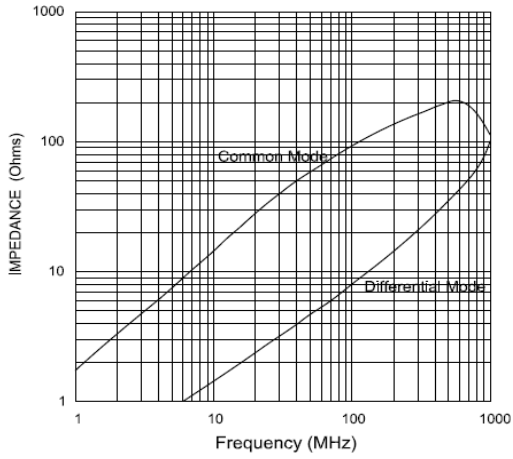
Part No.	A	B	C	D1	D2	P
MCA2012 (0805)	2.0 ± 0.20	1.25 ± 0.20	1.1 ± 0.20	0.25 ± 0.20	0.25 ± 0.20	0.5 ± 0.20
MCA3216 (1206)	3.2 ± 0.20	1.60 ± 0.20	0.9 ± 0.20	0.40 ± 0.15	0.20 ± 0.10	0.8 ± 0.10

ELECTRICAL CHARACTERISTICS

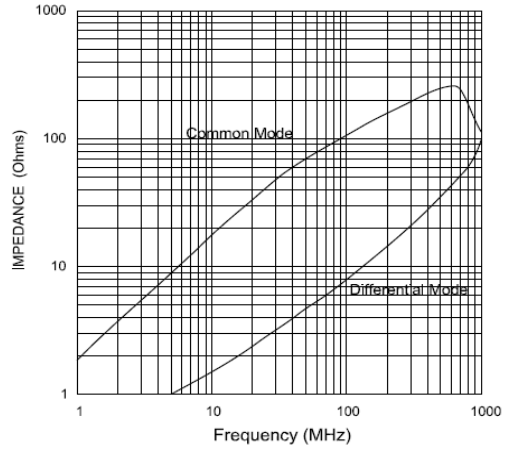
Part No.	Impedance (Ω) AT 100 MHz	DC Resistance (Ω) Max	Rated Current (mA) Max
MCA 2012-900 □-N	90	0.60	400
MCA 2012-121 □-N	120	0.60	300
MCA 2012-161 □-N	160	0.70	300
MCA 3216-300 □-N	30	0.20	500
MCA 3216-600 □-N	60	0.25	400
MCA 3216-900 □-N	90	0.30	300
MCA 3216-121 □-N	120	0.30	350
MCA 3216-151 □-N	150	0.35	200
MCA 3216-241 □-N	240	0.35	200
MCA 3216-301 □-N	300	0.40	250
MCA 3216-471 □-N	470	0.45	200
MCA 3216-601 □-N	600	0.50	200
MCA 3216-102 □-N	1000	0.75	150

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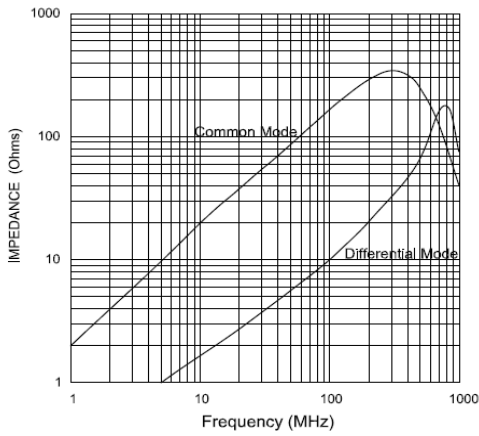
MAC2012-900Y-N



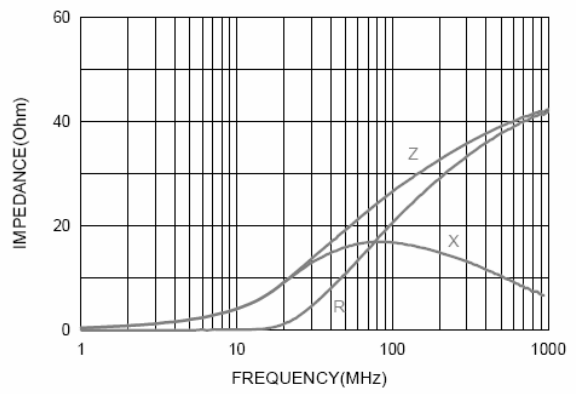
MAC2012-121Y-N



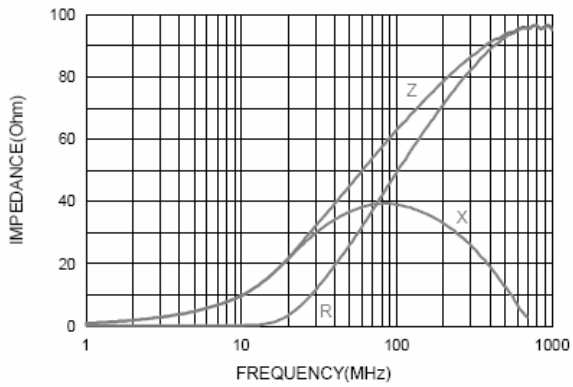
MCA2012-161Y-N



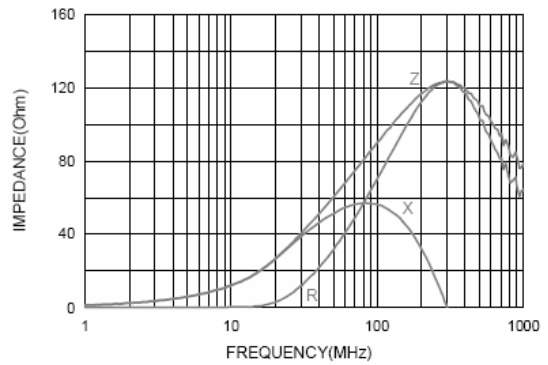
MCA3216-300Y-N



MCA3216-600Y-N

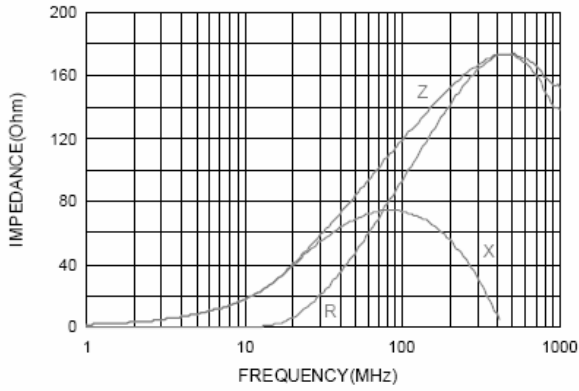


MCA3216-900Y-N

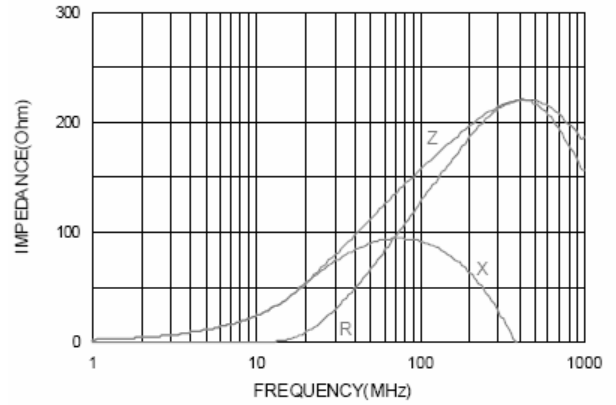


MULTILAYER CHIP BEAD ARRAYS / MCA TYPE

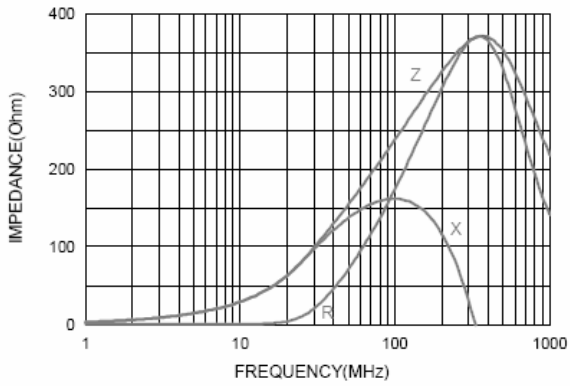
MCA3216-121Y-N



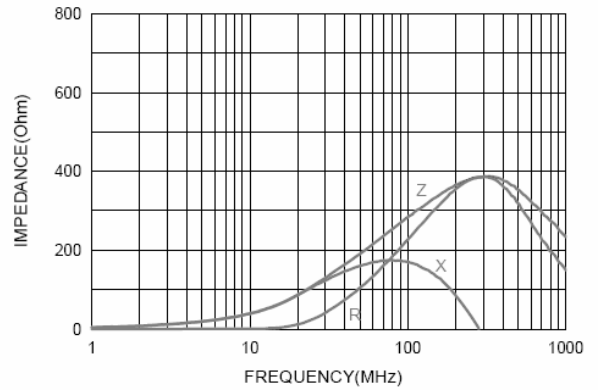
MCA3216-151Y-N



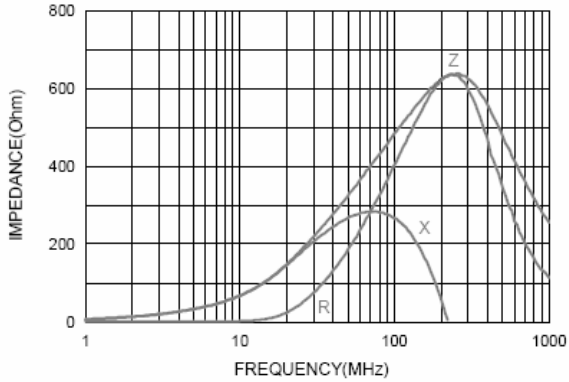
MCA3216-241Y-N



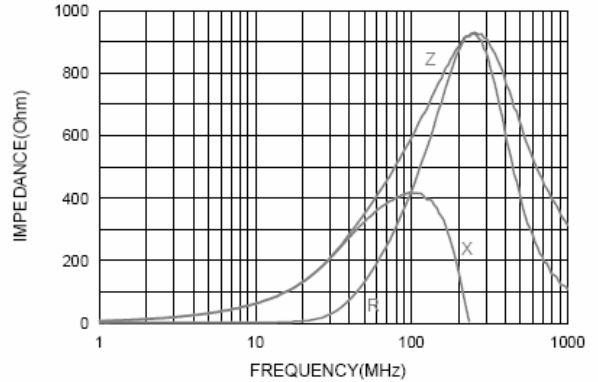
MCA3216-301Y-N



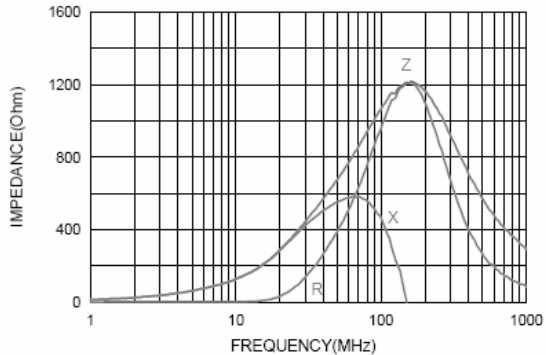
MCA3216-471Y-N



MCA3216-601Y-N

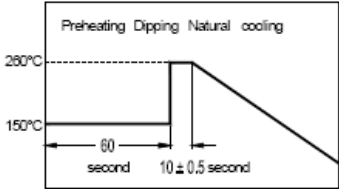
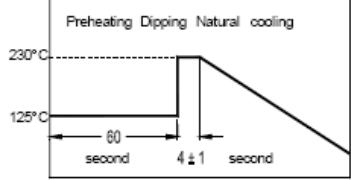

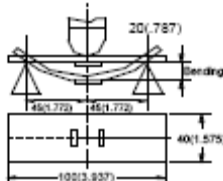


MCA3216-102Y-N



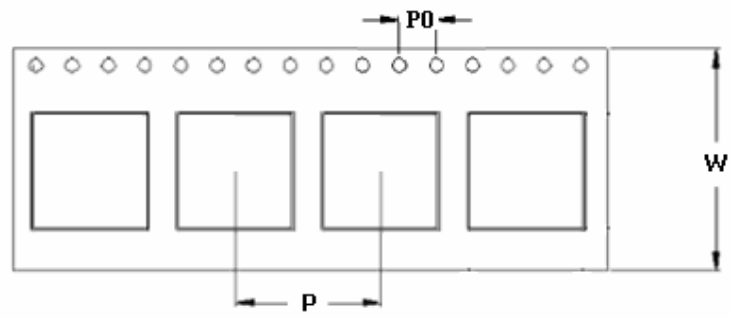
MULTILAYER CHIP BEAD ARRAYS / MCA TYPE

RELIABILITY AND TEST CONDITIONS:

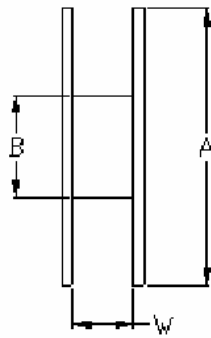
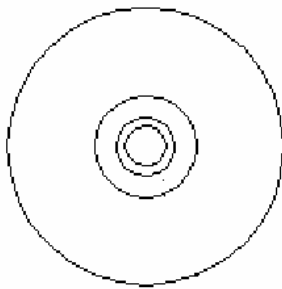
Item	Performance	Test Condition															
Operating Temperature	-20~+85°C																
Rated Current	Refer to standard electrical characteristics list.																
Temperature Rise Test	40°C max. (Δt)																
Solder heat Resistance	Appearance: No damage. Impedance change: Within $\pm 30\%$. Inductance change: Within $\pm 30\%$.	Preheat: 150°C, 60sec. Solder : H63A Solder temperature: 260 ± 5 °C Flux: rosin Dip time: 10 ± 1 sec. 															
Solderability	More than 70% of the terminal electrode should be covered with solder.	Preheat: 150°C, 60sec. Solder : H63A Solder temperature: 230 ± 5 °C Flux: rosin Dip time: 4 ± 1 sec. 															
Terminal strength	The terminal electrode and the dielectric must not be damaged by the forces applied on the right conditions.	Size Force Time (sec) (Kfg) 1005 0.2 1608 0.5 2012 0.6 2520 0.8 3216 1.0 >25 3225 1.0 4516 1.0 4532 1.5 5750 2.0 															
Flexure strength	The terminal electrode and the dielectric must not be damaged by the forces applied on the right conditions.	Solder a chip on a test substrate, bend the substrate by 2mm(0.079in) and return 															
Thermal shock	Appearance: No damage.	Condition for 1 cycle Step1: -25 ± 5 °C 30 ± 3 min. Step2: Room temperature 15 min. Step3: +85 ± 5 °C 30 ± 3 min. Step4: Room temperature 15 min. Number of cycles: 50 <table border="1" data-bbox="1104 1572 1481 1796"> <thead> <tr> <th>Phase</th> <th>Temperature(°C)</th> <th>Time(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25± 5°C</td> <td>30± 3</td> </tr> <tr> <td>2</td> <td>Room Temp.</td> <td>15</td> </tr> <tr> <td>3</td> <td>+85± 5°C</td> <td>30± 3</td> </tr> <tr> <td>4</td> <td>Room Temp.</td> <td>15</td> </tr> </tbody> </table>	Phase	Temperature(°C)	Time(min)	1	-25 ± 5 °C	30 ± 3	2	Room Temp.	15	3	+85 ± 5 °C	30 ± 3	4	Room Temp.	15
Phase	Temperature(°C)	Time(min)															
1	-25 ± 5 °C	30 ± 3															
2	Room Temp.	15															
3	+85 ± 5 °C	30 ± 3															
4	Room Temp.	15															
Humidity Resistance Test	Impedance change: Within $\pm 30\%$. Inductance change: Within $\pm 30\%$	Temperature: 40 ± 5 °C. Measured: 50 times Applied current: rated current. Duration: 500 hrs. Humidity: 90~95%															
High Temperature Resistance Test		Temperature: 85 ± 2 °C. Applied current: rated current. Duration: 500 hrs.															

MULTILAYER CHIP BEAD ARRAYS / MCA TYPE

PACKAGING QUANTITY: (UNIT: mm)



TYPE	P	P0	W	BULK	PCS / REEL
MCA2012	4.0 ± 0.1	4.0 ± 0.1	8.0 ± 0.8	√	3000
MCA3216	4.0 ± 0.1	4.0 ± 0.1	8.0 ± 0.8	√	3000



TYPE	A	B	W
MCA2012	178	60	12
MCA3216	178	60	12