

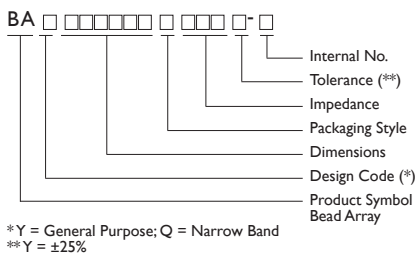
Multilayer Ferrite Chip Beads

BA Series

[Bead Array For High Density Circuit Design]



PRODUCT IDENTIFICATION

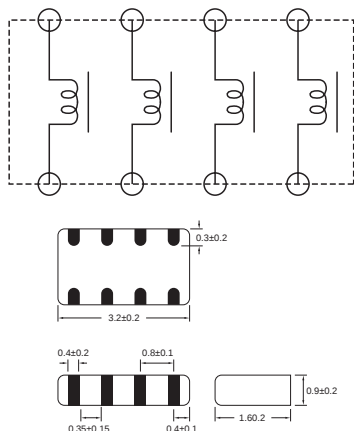


■ YAGEO will start to release lead-free that meet SONY SS-00259's criteria, and Internal No. will be changed to "N" as identification.

Ex. SBY321609T-300Y-N

SHAPES AND DIMENSIONS

Parts Dimensions : 3.20 x 1.60 x 0.90 mm



APPLICATIONS

• Computers • LCD Monitor • Hard Disk Drives • CD-ROMs • Motherboard

FEATURES

These multi-layered chip bead arrays are surface mounting EMI components.

Four lines in one chip for suppressing noise

suitable for high density circuit design.

ELECTRICAL CHARACTERISTICS

PART NO.	IMPEDANCE at 100MHz ($\Omega \pm 25\%$)	DC RESISTANCE (Ω) Max.	RATED CURRENT (mA) Max.
BAY321609T-300Y-S	30	0.4	350
BAY321609T-600Y-S	60	0.4	250
BAY321609T-121Y-S	120	0.8	150
BAY321609T-241Y-S	240	0.8	150
BAY321609T-301Y-S	300	0.8	150
BAY321609T-471Y-S	470	1	100
BAY321609T-601Y-S	600	1.5	100
BAY321609T-102Y-S	1000	1.7	50
BAQ321609T-600Y-S	60	0.8	150
BAQ321609T-121Y-S	120	0.8	150
BAQ321609T-221Y-S	220	0.8	150
BAQ321609T-471Y-S	470	1	150
BAQ321609T-601Y-S	600	1.5	100
BAQ321609T-102Y-S	1000	1.8	100

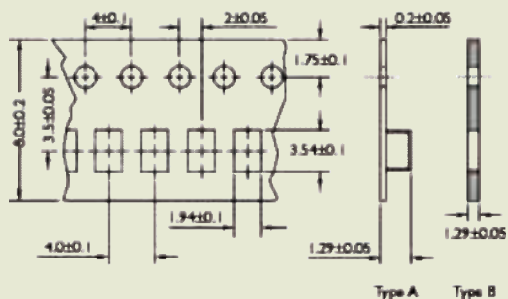
ELECTRICAL CHARACTERISTICS: LEAD-FREE & ROHS COMPLIANCE!!

PART NO.	TEST FREQ (MHZ)	IMPEDANCE ($\Omega \pm 25\%$)	RDC (Ω) Max.	RATED CURRENT (mA) Max.
BAY321609T-300Y-N	100	30	0.4	350
BAY321609T-600Y-N	100	60	0.4	250
BAY321609T-800Y-N	100	80	0.8	150
BAY321609T-121Y-N	100	120	0.8	150
BAY321609T-151Y-N	100	150	0.8	150
BAY321609T-181Y-N	100	180	0.8	150
BAY321609T-221Y-N	100	220	0.8	150
BAY321609T-241Y-N	100	240	0.8	150
BAY321609T-301Y-N	100	300	0.8	150
BAY321609T-471Y-N	100	470	1	100
BAY321609T-601Y-N	100	600	1.5	100
BAY321609T-102Y-N	100	1000	1.7	50



TAPE DIMENSIONS

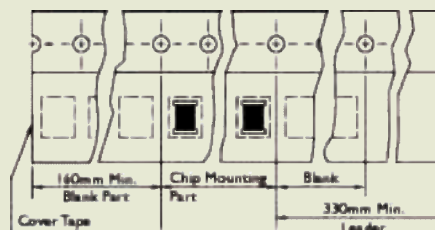
Dimensions : mm



TAPE MATERIAL

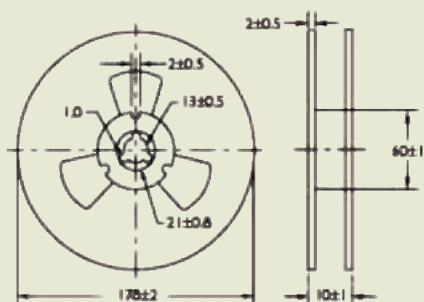
Carrier Tape : Polystyrene for 321609

Cover Type : Polystyrene



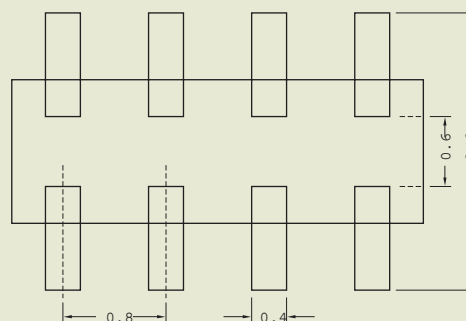
REEL DIMENSIONS

Dimensions : mm



RECOMMENDED PATTERN

Dimensions : mm

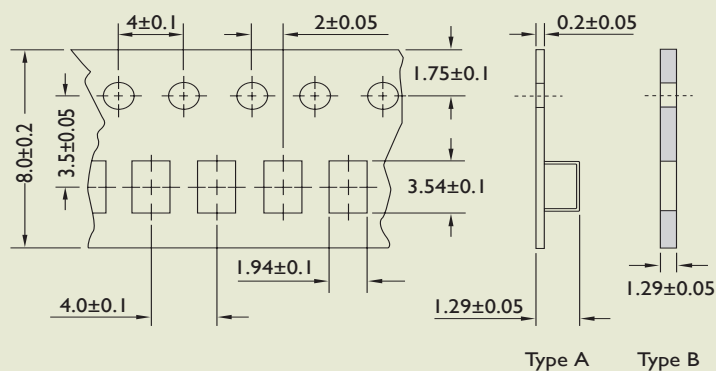


PACKAGING QUANTITY

TYPE	QUANTITY/REEL
BAY321609	3000
BAQ321609	3000

TYPICAL ELECTRICAL CHARACTERISTICS

Test Instruments : HP4291A Impedance / Material Analyzer





SB/PB/UP/NB/GB/BA SERIES RELIABILITY TEST

I-1 MECHANICAL PERFORMANCE

NO.	ITEM	SPECIFICATION	TEST CONDITIONS
I-1-1	Flexure Strength	Appearance : No Damage Z Change : within $\pm 20\%$ RDC : within Specification	Test device shall be soldered on the substrate. Substrate Dimension : $100 \times 40 \times 1.6\text{mm}$ Deflection : 2.0mm Keeping Time : 30Sec. * For 100505, substrate dimension is $100 \times 40 \times 0.8\text{mm}$.
I-1-2	Vibration		Test device shall be soldered on the substrate. Oscillation Frequency : 10 to 55 to 10Hz for 1Min. Amplitude : 1.5mm Time : 2Hrs. for each Axis (X,Y & Z), Total 6Hrs.
I-1-3	Resistance to Soldering Heat	Appearance : No Damage	Pre-heating : 150°C , 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : $260 \pm 5^\circ\text{C}$ Immersion Time : $10 \pm 1\text{Sec}$.
I-1-4	Solderability	The electrodes shall be at least 90% covered with new solder coating.	Pre-heating : 150°C , 1Min. Solder Composition : Sn/Pb = 63/37 Solder Temperature : $230 \pm 5^\circ\text{C}$ Immersion Time : $4 \pm 1\text{Sec}$.
I-1-5	Terminal Strength Test	100505 Series : $\geq 0.2\text{kg}$ 160808 Series : $\geq 0.5\text{kg}$ 201209 Series : $\geq 1.0\text{kg}$ Other Series : $\geq 2.0\text{kg}$	Test device shall be soldered on the substrate. 

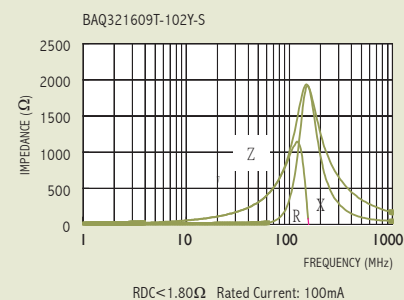
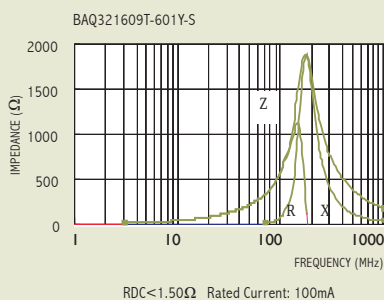
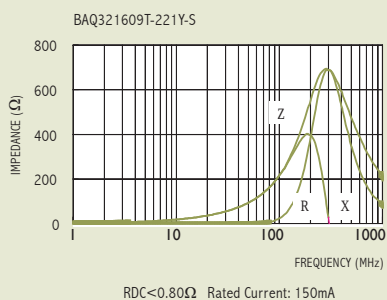
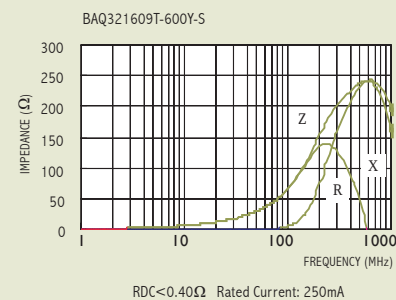
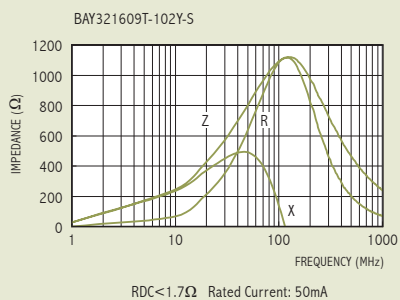
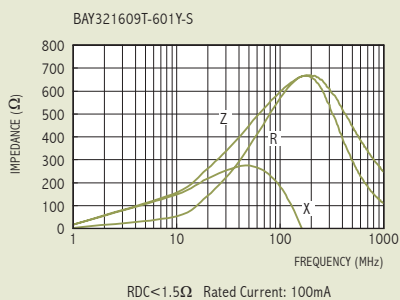
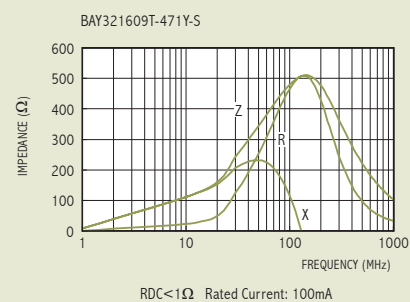
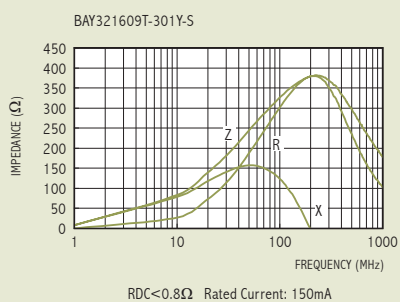
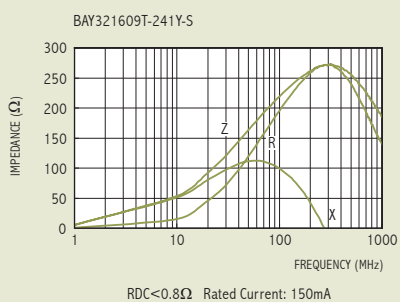
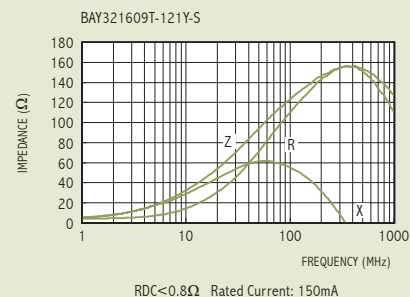
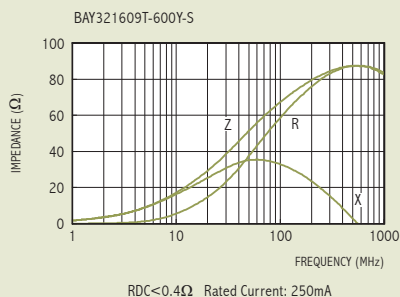
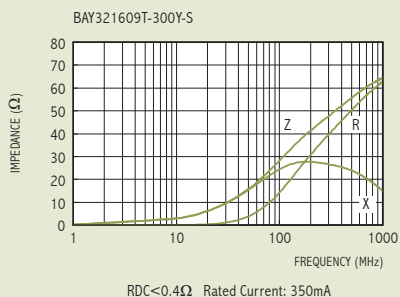
I-2 ENVIRONMENTAL PERFORMANCE

NO.	ITEM	SPECIFICATION	TEST CONDITIONS															
I-2-1	Temperature Cycle	Appearance : No Damage Z Change : within ±20% RDC : within Specification	One Cycle <table><tr><th>Step</th><th>Temperature (°C)</th><th>Time (Min.)</th></tr><tr><td>1</td><td>-55 ± 3</td><td>30</td></tr><tr><td>2</td><td>25 ± 2</td><td>3</td></tr><tr><td>3</td><td>125 ± 3</td><td>30</td></tr><tr><td>4</td><td>25 ± 2</td><td>3</td></tr></table> Total : 100 Cycles Measured after Exposure in the Room Condition for 24Hrs.	Step	Temperature (°C)	Time (Min.)	1	-55 ± 3	30	2	25 ± 2	3	3	125 ± 3	30	4	25 ± 2	3
Step	Temperature (°C)	Time (Min.)																
1	-55 ± 3	30																
2	25 ± 2	3																
3	125 ± 3	30																
4	25 ± 2	3																
I-2-2	Humidity Resistance		Temperature : 40 ±2°C Relative Humidity : 90 ~ 95% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															
I-2-3	High Temperature Resistance		Temperature : 125 ± 3°C Relative Humidity : 0% Applied Current : Rated Current Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															
I-2-4	Low Temperature Resistance		Temperature : -55 ± 3°C Relative Humidity : 0% Time : 1000Hrs. Measured after Exposure in the Room Condition for 24Hrs.															



MULTILAYER FERRITE BEAD ARRAY - BA SERIES

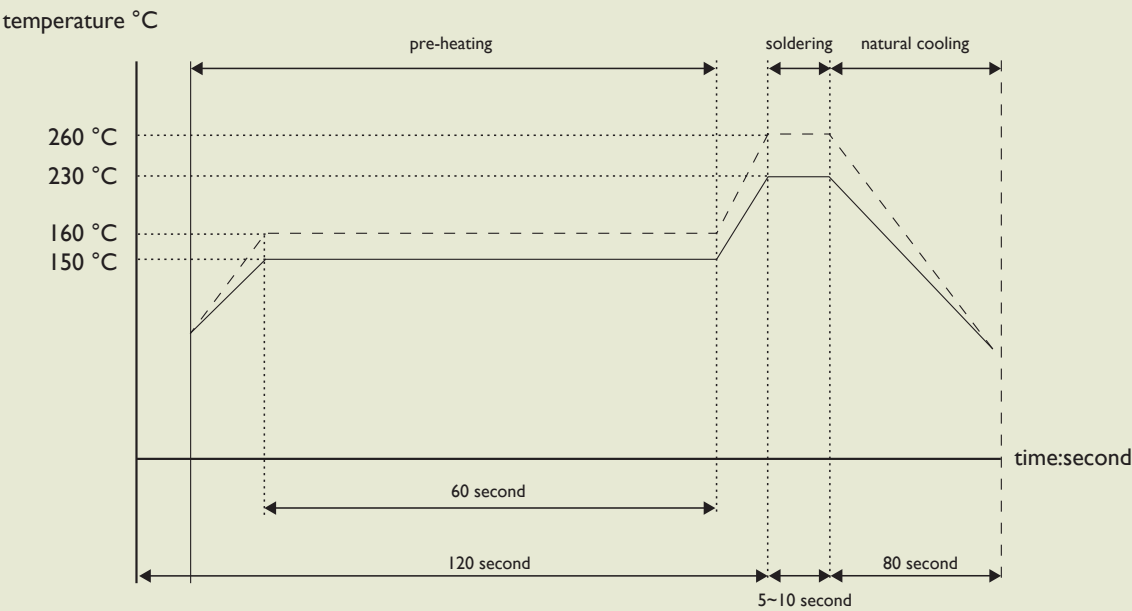
Test Instruments : HP4291A Impedance / Material Analyzer





RECOMMEND SOLDERING CONDITIONS

for:CL/ CLH/ SQV/ SMD power inductors/ SMD Chip Beads/ SMD Filters,Transformers, Current Sensors



for: lead solder

for: lead-free solder