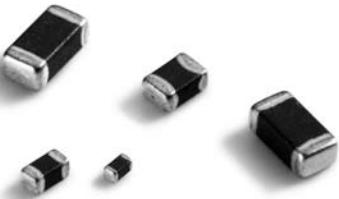
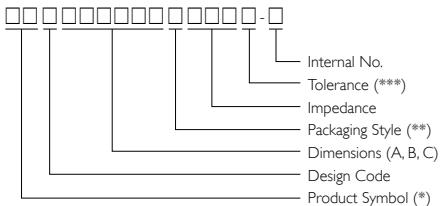


SMD Chip Beads

SB/NB/HF/GB/PB/UPB



PRODUCT IDENTIFICATION



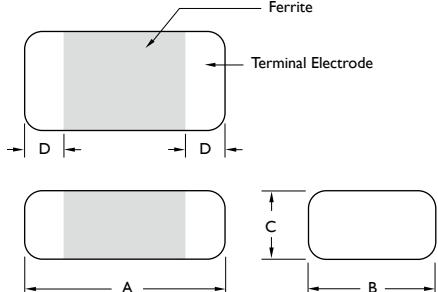
- Product Symbol: SB, NB, HF, GB, PB, UPB
- Packaging: T = Tape and Reel, B = Bulk
- Tolerance: M = $\pm 20\%$, Y = $\pm 25\%$, T = $\pm 30\%$
- Internal No.: N = Lead-Free

OUTLINE

Yageo offers hundreds of multi-layered ferrite chip beads with various sizes, frequency characteristics, and a wide range of impedance values to provide powerful solutions for EMI problems.

Three formulas of ferrite compose several types of EMI suppression chip beads that are classified into six categories- SB, NB, HF, GB, PB and UPB series.

SHAPES AND DIMENSIONS



| TYPE | A | B | C | D | Unit: mm |
|--------------------|----------------|-----------------|-----------------|-----------------|----------|
| SB/NB/PB/HF | 1.0 \pm 0.10 | 0.50 \pm 0.10 | 0.5 \pm 0.10 | 0.25 \pm 0.10 | |
| SB/NB/GB/PB/UPB/HF | 1.6 \pm 0.15 | 0.80 \pm 0.15 | 0.8 \pm 0.15 | 0.3 \pm 0.2 | |
| SB/NB/GB/PB/UPB | 2.0 \pm 0.20 | 1.25 \pm 0.20 | 0.9 \pm 0.20 | 0.5 \pm 0.3 | |
| UPB | 2.0 \pm 0.20 | 1.25 \pm 0.20 | 1.25 \pm 0.20 | 0.5 \pm 0.3 | |
| SB/NB/GB/PB/UPB | 3.2 \pm 0.20 | 1.60 \pm 0.20 | 1.1 \pm 0.20 | 0.5 \pm 0.3 | |
| SB/GB | 3.2 \pm 0.20 | 1.60 \pm 0.20 | 1.6 \pm 0.20 | 0.5 \pm 0.3 | |
| SB/GB/PB | 3.2 \pm 0.20 | 2.50 \pm 0.20 | 1.3 \pm 0.20 | 0.5 \pm 0.3 | |
| SB/GB/PB/UPB | 4.5 \pm 0.25 | 1.60 \pm 0.20 | 1.6 \pm 0.20 | 0.5 \pm 0.3 | |
| SB/GB/PB/UPB | 4.5 \pm 0.25 | 3.20 \pm 0.20 | 1.5 \pm 0.20 | 0.5 \pm 0.3 | |

ELECTRICAL CHARACTERISTICS SB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| SBY100505T-060Y-N | 6 | 100 | 0.05 | 500 |
| SBY100505T-100Y-N | 10 | 100 | 0.05 | 500 |
| SBY100505T-400Y-N | 40 | 100 | 0.20 | 500 |
| SBY100505T-800Y-N | 80 | 100 | 0.20 | 500 |
| SBY100505T-121Y-N | 120 | 100 | 0.25 | 500 |
| SBY100505T-241Y-N | 240 | 100 | 0.40 | 400 |
| SBY100505T-481Y-N | 480 | 100 | 0.50 | 300 |
| SBY100505T-601Y-N | 600 | 100 | 0.60 | 300 |
| SBY100505T-102Y-N | 1,000 | 100 | 0.95 | 200 |
| SBY100505T-152Y-N | 1,500 | 100 | 1.15 | 100 |
| SBY100505T-182Y-N | 1,800 | 100 | 1.40 | 100 |
| SBK160808T-110Y-N | 11 | 100 | 0.05 | 500 |
| SBK160808T-190Y-N | 19 | 100 | 0.08 | 500 |
| SBK160808T-300Y-N | 30 | 100 | 0.10 | 400 |
| SBK160808T-400Y-N | 40 | 100 | 0.10 | 400 |
| SBK160808T-600Y-N | 60 | 100 | 0.10 | 400 |
| SBK160808T-800Y-N | 80 | 100 | 0.15 | 400 |
| SBK160808T-121Y-N | 120 | 100 | 0.25 | 400 |
| SBK160808T-221Y-N | 220 | 100 | 0.30 | 300 |
| SBK160808T-301Y-N | 300 | 100 | 0.40 | 300 |
| SBK160808T-451Y-N | 450 | 100 | 0.50 | 300 |
| SBK160808T-601Y-N | 600 | 100 | 0.50 | 300 |
| SBK160808T-751Y-N | 750 | 100 | 0.60 | 300 |
| SBK160808T-102Y-N | 1,000 | 100 | 0.60 | 300 |
| SBK160808T-152Y-N | 1,500 | 100 | 0.60 | 300 |
| SBK160808T-222Y-N | 2,200 | 100 | 0.80 | 200 |
| SBK160808T-272Y-N | 2,700 | 100 | 0.80 | 200 |



ELECTRICAL CHARACTERISTICS SB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| SBY201209T-070Y-N | 7 | 100 | 0.10 | 600 |
| SBY201209T-090Y-N | 9 | 100 | 0.10 | 600 |
| SBY201209T-110Y-N | 11 | 100 | 0.10 | 600 |
| SBY201209T-170Y-N | 17 | 100 | 0.10 | 600 |
| SBY201209T-320Y-N | 32 | 100 | 0.10 | 600 |
| SBK201209T-600Y-N | 60 | 100 | 0.15 | 500 |
| SBK201209T-700Y-N | 70 | 100 | 0.15 | 500 |
| SBK201209T-800Y-N | 80 | 100 | 0.15 | 500 |
| SBK201209T-121Y-N | 120 | 100 | 0.25 | 300 |
| SBK201209T-151Y-N | 150 | 100 | 0.25 | 300 |
| SBK201209T-221Y-N | 220 | 100 | 0.30 | 300 |
| SBK201209T-301Y-N | 300 | 100 | 0.30 | 300 |
| SBK201209T-401Y-N | 400 | 100 | 0.30 | 300 |
| SBK201209T-501Y-N | 500 | 100 | 0.40 | 300 |
| SBK201209T-601Y-N | 600 | 100 | 0.40 | 300 |
| SBK201209T-751Y-N | 750 | 100 | 0.50 | 200 |
| SBK201209T-102Y-N | 1,000 | 100 | 0.50 | 200 |
| SBK201209T-152Y-N | 1,500 | 100 | 0.60 | 200 |
| SBK201209T-202Y-N | 2,000 | 100 | 0.70 | 200 |
| SBK201209T-222Y-N | 2,200 | 100 | 0.70 | 200 |
| SBK201209T-252Y-N | 2,500 | 100 | 0.70 | 200 |
| SBK201209T-272Y-N | 2,700 | 100 | 0.70 | 200 |
| SBY321611T-190Y-N | 19 | 100 | 0.05 | 600 |
| SBY321611T-260Y-N | 26 | 100 | 0.05 | 600 |
| SBY321611T-320Y-N | 32 | 100 | 0.05 | 600 |
| SBY321611T-500Y-N | 50 | 100 | 0.10 | 500 |
| SBY321611T-600Y-N | 60 | 100 | 0.10 | 500 |
| SBK321611T-700Y-N | 70 | 100 | 0.10 | 500 |
| SBK321611T-900Y-N | 90 | 100 | 0.15 | 500 |
| SBK321611T-121Y-N | 120 | 100 | 0.15 | 500 |
| SBK321611T-151Y-N | 150 | 100 | 0.15 | 500 |
| SBK321611T-201Y-N | 200 | 100 | 0.20 | 400 |
| SBK321611T-401Y-N | 400 | 100 | 0.20 | 400 |
| SBK321611T-501Y-N | 500 | 100 | 0.20 | 400 |
| SBK321611T-601Y-N | 600 | 100 | 0.30 | 400 |
| SBK321611T-102Y-N | 1,000 | 50 | 0.40 | 200 |
| SBK321611T-122Y-N | 1,200 | 50 | 0.40 | 200 |
| SBK321611T-152Y-N | 1,500 | 50 | 0.45 | 200 |
| SBK321611T-202Y-N | 2,000 | 30 | 0.60 | 200 |
| SBK321611T-272Y-N | 2,700 | 30 | 0.60 | 200 |

ELECTRICAL CHARACTERISTICS SB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| SBY321616T-250Y-N | 25 | 100 | 0.10 | 500 |
| SBY321616T-600Y-N | 60 | 100 | 0.20 | 500 |
| SBK321616T-700Y-N | 70 | 100 | 0.20 | 500 |
| SBY322513T-320Y-N | 32 | 100 | 0.20 | 500 |
| SBY322513T-600Y-N | 60 | 100 | 0.20 | 500 |
| SBY322513T-900Y-N | 90 | 100 | 0.20 | 500 |
| SBY451616T-500Y-N | 50 | 100 | 0.20 | 600 |
| SBY451616T-600Y-N | 60 | 100 | 0.20 | 600 |
| SBY451616T-800Y-N | 80 | 100 | 0.20 | 600 |
| SBY451616T-101Y-N | 100 | 100 | 0.30 | 500 |
| SBK451616T-151Y-N | 150 | 100 | 0.30 | 500 |
| SBK451616T-171Y-N | 170 | 100 | 0.30 | 500 |
| SBY453215T-700Y-N | 70 | 100 | 0.30 | 500 |
| SBY453215T-121Y-N | 120 | 100 | 0.30 | 500 |



ELECTRICAL CHARACTERISTICS NB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| NBQ100505T-060Y-N | 6 | 100 | 0.08 | 500 |
| NBQ100505T-100Y-N | 10 | 100 | 0.10 | 500 |
| NBQ100505T-400Y-N | 40 | 100 | 0.25 | 400 |
| NBQ100505T-800Y-N | 80 | 100 | 0.30 | 400 |
| NBQ100505T-121Y-N | 120 | 100 | 0.40 | 350 |
| NBQ100505T-221Y-N | 220 | 100 | 0.60 | 200 |
| NBQ100505T-301Y-N | 300 | 100 | 1.00 | 200 |
| NBQ100505T-481Y-N | 480 | 100 | 1.10 | 200 |
| NBQ100505T-601Y-N | 600 | 100 | 1.20 | 200 |
| NBQ160808T-060Y-N | 6 | 100 | 0.05 | 700 |
| NBQ160808T-100Y-N | 10 | 100 | 0.07 | 500 |
| NBQ160808T-400Y-N | 40 | 100 | 0.20 | 500 |
| NBQ160808T-600Y-N | 60 | 100 | 0.25 | 500 |
| NBQ160808T-800Y-N | 80 | 100 | 0.25 | 500 |
| NBQ160808T-121Y-N | 120 | 100 | 0.30 | 400 |
| NBQ160808T-241Y-N | 240 | 100 | 0.35 | 400 |
| NBQ160808T-301Y-N | 300 | 100 | 0.40 | 400 |
| NBQ160808T-481Y-N | 480 | 100 | 0.50 | 200 |
| NBQ160808T-601Y-N | 600 | 100 | 0.50 | 200 |
| NBQ160808T-102Y-N | 1,000 | 100 | 0.60 | 200 |
| NBQ160808T-122Y-N | 1,200 | 100 | 0.60 | 100 |
| NBQ160808T-152Y-N | 1,500 | 100 | 0.70 | 100 |
| NBQ160808T-182Y-N | 1,800 | 100 | 0.80 | 100 |
| NBQ160808T-222Y-N | 2,200 | 100 | 1.00 | 100 |
| NBQ160808T-252Y-N | 2,500 | 100 | 1.00 | 100 |

ELECTRICAL CHARACTERISTICS NB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| NBQ201209T-060Y-N | 6 | 100 | 0.07 | 800 |
| NBQ201209T-110Y-N | 11 | 100 | 0.10 | 700 |
| NBQ201209T-260Y-N | 26 | 100 | 0.15 | 600 |
| NBQ201209T-320Y-N | 32 | 100 | 0.15 | 600 |
| NBQ201209T-600Y-N | 60 | 100 | 0.15 | 500 |
| NBQ201209T-750Y-N | 75 | 100 | 0.15 | 500 |
| NBQ201209T-900Y-N | 90 | 100 | 0.15 | 500 |
| NBQ201209T-121Y-N | 120 | 100 | 0.20 | 500 |
| NBQ201209T-151Y-N | 150 | 100 | 0.20 | 500 |
| NBQ201209T-171Y-N | 170 | 100 | 0.30 | 500 |
| NBQ201209T-221Y-N | 220 | 100 | 0.30 | 500 |
| NBQ201209T-301Y-N | 300 | 100 | 0.30 | 500 |
| NBQ201209T-401Y-N | 400 | 100 | 0.35 | 500 |
| NBQ201209T-501Y-N | 500 | 100 | 0.35 | 500 |
| NBQ201209T-601Y-N | 600 | 100 | 0.35 | 500 |
| NBQ201209T-102Y-N | 1,000 | 100 | 0.40 | 400 |
| NBQ201209T-122Y-N | 1,200 | 100 | 0.45 | 400 |
| NBQ201209T-152Y-N | 1,500 | 100 | 0.45 | 400 |
| NBQ201209T-222Y-N | 2,200 | 100 | 0.50 | 400 |
| NBQ201209T-272Y-N | 2,700 | 100 | 0.60 | 200 |
| NBQ3216IIT-320Y-N | 32 | 100 | 0.15 | 600 |
| NBQ3216IIT-600Y-N | 60 | 100 | 0.15 | 500 |
| NBQ3216IIT-800Y-N | 80 | 100 | 0.15 | 500 |
| NBQ3216IIT-900Y-N | 90 | 100 | 0.15 | 500 |
| NBQ3216IIT-121Y-N | 120 | 100 | 0.20 | 500 |
| NBQ3216IIT-151Y-N | 150 | 100 | 0.20 | 500 |
| NBQ3216IIT-201Y-N | 200 | 100 | 0.25 | 400 |
| NBQ3216IIT-221Y-N | 220 | 100 | 0.30 | 400 |
| NBQ3216IIT-351Y-N | 350 | 100 | 0.30 | 400 |
| NBQ3216IIT-401Y-N | 400 | 100 | 0.30 | 400 |
| NBQ3216IIT-601Y-N | 600 | 100 | 0.35 | 400 |
| NBQ3216IIT-122Y-N | 1,200 | 100 | 0.40 | 300 |
| NBQ3216IIT-152Y-N | 1,500 | 100 | 0.45 | 300 |



ELECTRICAL CHARACTERISTICS NB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| NBP160808T-220Y-N | 22 | 100 | 0.07 | 1,800 |
| NBP160808T-300Y-N | 30 | 100 | 0.07 | 1,800 |
| NBP160808T-600Y-N | 60 | 100 | 0.10 | 1,500 |
| NBP160808T-800Y-N | 80 | 100 | 0.12 | 1,200 |
| NBP160808T-121Y-N | 120 | 100 | 0.15 | 1,000 |
| NBP201209T-070Y-N | 7 | 100 | 0.03 | 2,000 |
| NBP201209T-320Y-N | 32 | 100 | 0.05 | 1,800 |
| NBP201209T-400Y-N | 40 | 100 | 0.08 | 1,500 |
| NBP201209T-600Y-N | 60 | 100 | 0.08 | 1,500 |
| NBP201209T-121Y-N | 120 | 100 | 0.10 | 1,000 |
| NBP201209T-221Y-N | 220 | 100 | 0.15 | 800 |
| NBP321611T-150Y-N | 15 | 100 | 0.04 | 2,000 |
| NBP321611T-190Y-N | 19 | 100 | 0.04 | 2,000 |
| NBP321611T-300Y-N | 30 | 100 | 0.06 | 1,800 |
| NBP321611T-600Y-N | 60 | 100 | 0.08 | 1,500 |
| NBP321611T-121Y-N | 120 | 100 | 0.10 | 1,200 |
| NBP321611T-221Y-N | 220 | 100 | 0.12 | 1,200 |
| NBP321611T-601Y-N | 600 | 100 | 0.15 | 1,000 |



ELECTRICAL CHARACTERISTICS HF Series

| PART NO. | IMPEDANCE | TEST FREQUENCY | IMPEDANCE | TEST FREQUENCY | DC RESISTANCE | RATED CURRENT |
|--------------------|-----------|----------------|-----------|----------------|---------------|---------------|
| | (Ω) ±25% | (MHz) | (Ω) Max. | (MHz) | (Ω) Max. | (mA) Max. |
| HFJ100505T-601Y-N | 600 | 100 | 1,400 | 1,000 | 0.850 | 300 |
| HFJ100505T-102Y-N | 1,000 | 100 | 2,000 | 1,000 | 1.250 | 250 |
| HFJ100505T-152Y-N | 1,500 | 100 | 2,400 | 1,000 | 1.800 | 230 |
| HFJ100505T-182Y-N | 1,800 | 100 | 2,700 | 1,000 | 2.200 | 200 |
| HFJ160808T-471Y-N | 470 | 100 | 1,000 | 1,000 | 1.000 | 100 |
| HFJ160808T-601Y-N | 600 | 100 | 1,200 | 1,000 | 1.100 | 100 |
| HFJ160808T-102Y-N | 1,000 | 100 | 1,200 | 1,000 | 1.600 | 50 |
| HFJ160808T-152Y-N | 1,500 | 100 | 1,500 | 1,000 | 1.700 | 50 |
| HFQ100505T-121Y-N | 120 | 100 | 500 | 1,000 | 0.700 | 300 |
| HFQ100505T-221Y-N | 220 | 100 | 900 | 1,000 | 1.000 | 250 |
| HFQ160808T-121Y-N | 120 | 100 | 500 | 1,000 | 0.500 | 200 |
| HFQ160808T-221Y-N | 220 | 100 | 1,100 | 1,000 | 0.800 | 100 |
| HFQ160808T-301Y-N | 300 | 100 | 1,300 | 1,000 | 1.100 | 80 |
| HFQ160808T-331Y-N | 330 | 100 | 1,600 | 1,000 | 1.200 | 50 |
| HFV160808T-601Y-N | 600 | 100 | 600 | 1,000 | 0.250 | 800 |
| HFV160808T-102Y-N | 1,000 | 100 | 1,000 | 1,000 | 0.350 | 600 |
| HFV160808T-152Y-N | 1,500 | 100 | 1,500 | 1,000 | 0.500 | 500 |
| HFY100505T-601Y-N | 600 | 100 | 1,000 | 1,000 | 0.700 | 300 |
| HFY100505T-102Y-N | 1,000 | 100 | 1,400 | 1,000 | 1.100 | 250 |
| HFY100505T-121Y-NP | 120 | 100 | 150 | 1,000 | 0.095 | 1,500 |
| HFY100505T-221Y-NP | 220 | 100 | 270 | 1,000 | 0.280 | 700 |
| HFY160808T-301Y-N | 300 | 100 | 550 | 1,000 | 0.700 | 200 |
| HFY160808T-471Y-N | 470 | 100 | 600 | 1,000 | 0.700 | 200 |
| HFY160808T-601Y-N | 600 | 100 | 700 | 1,000 | 0.800 | 200 |
| HFY160808T-102Y-N | 1,000 | 100 | 1,000 | 1,000 | 1.500 | 100 |
| HFY160808T-152Y-N | 1,500 | 100 | 1,500 | 1,000 | 1.600 | 100 |
| HFY160808T-331Y-NP | 330 | 100 | 450 | 1,000 | 0.210 | 500 |
| HFY160808T-391Y-NP | 390 | 100 | 520 | 1,000 | 0.210 | 500 |
| HFY160808T-471Y-NP | 470 | 100 | 600 | 1,000 | 0.210 | 500 |
| HFY160808T-601Y-NP | 600 | 100 | 700 | 1,000 | 0.350 | 500 |
| HFY160808T-102Y-NP | 1,000 | 100 | 1,000 | 1,000 | 0.500 | 450 |



ELECTRICAL CHARACTERISTICS GB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| GBK160808T-110Y-N | 11 | 100 | 0.03 | 1,000 |
| GBK160808T-190Y-N | 19 | 100 | 0.05 | 1,000 |
| GBK160808T-300Y-N | 30 | 100 | 0.06 | 800 |
| GBK160808T-400Y-N | 40 | 100 | 0.06 | 800 |
| GBK160808T-600Y-N | 60 | 100 | 0.06 | 600 |
| GBK160808T-800Y-N | 80 | 100 | 0.10 | 600 |
| GBK160808T-121Y-N | 120 | 100 | 0.15 | 600 |
| GBK160808T-221Y-N | 220 | 100 | 0.18 | 400 |
| GBK160808T-301Y-N | 300 | 100 | 0.25 | 400 |
| GBK160808T-451Y-N | 450 | 100 | 0.30 | 400 |
| GBK160808T-601Y-N | 600 | 100 | 0.30 | 400 |
| GBK160808T-751Y-N | 750 | 100 | 0.45 | 300 |
| GBK160808T-102Y-N | 1,000 | 100 | 0.45 | 300 |
| GBY201209T-070Y-N | 7 | 100 | 0.06 | 1,000 |
| GBY201209T-090Y-N | 9 | 100 | 0.06 | 1,000 |
| GBY201209T-110Y-N | 11 | 100 | 0.06 | 1,000 |
| GBY201209T-170Y-N | 17 | 100 | 0.06 | 1,000 |
| GBY201209T-320Y-N | 32 | 100 | 0.06 | 1,000 |
| GBK201209T-600Y-N | 60 | 100 | 0.10 | 800 |
| GBK201209T-700Y-N | 70 | 100 | 0.10 | 800 |
| GBK201209T-800Y-N | 80 | 100 | 0.10 | 800 |
| GBK201209T-121Y-N | 120 | 100 | 0.15 | 600 |
| GBK201209T-151Y-N | 150 | 100 | 0.15 | 600 |
| GBK201209T-221Y-N | 220 | 100 | 0.18 | 600 |
| GBK201209T-301Y-N | 300 | 100 | 0.18 | 600 |
| GBK201209T-401Y-N | 400 | 100 | 0.18 | 600 |
| GBK201209T-501Y-N | 500 | 100 | 0.25 | 500 |
| GBK201209T-601Y-N | 600 | 100 | 0.25 | 500 |
| GBK201209T-751Y-N | 750 | 100 | 0.30 | 400 |
| GBK201209T-102Y-N | 1,000 | 100 | 0.30 | 400 |
| GBK201209T-152Y-N | 1,500 | 100 | 0.40 | 400 |
| GBK201209T-202Y-N | 2,000 | 100 | 0.55 | 400 |

ELECTRICAL CHARACTERISTICS GB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| GBY321611T-190Y-N | 19 | 100 | 0.03 | 1,000 |
| GBY321611T-260Y-N | 26 | 100 | 0.03 | 1,000 |
| GBY321611T-320Y-N | 32 | 100 | 0.03 | 1,000 |
| GBY321611T-500Y-N | 50 | 100 | 0.06 | 800 |
| GBY321611T-600Y-N | 60 | 100 | 0.06 | 800 |
| GBK321611T-700Y-N | 70 | 100 | 0.06 | 800 |
| GBK321611T-900Y-N | 90 | 100 | 0.10 | 800 |
| GBK321611T-121Y-N | 120 | 100 | 0.10 | 800 |
| GBK321611T-151Y-N | 150 | 100 | 0.10 | 800 |
| GBK321611T-201Y-N | 200 | 100 | 0.15 | 600 |
| GBK321611T-401Y-N | 400 | 100 | 0.15 | 600 |
| GBK321611T-501Y-N | 500 | 100 | 0.15 | 600 |
| GBK321611T-601Y-N | 600 | 100 | 0.20 | 500 |
| GBK321611T-102Y-N | 1,000 | 50 | 0.25 | 400 |
| GBK321611T-122Y-N | 1,200 | 50 | 0.25 | 400 |
| GBK321611T-202Y-N | 2,000 | 30 | 0.35 | 400 |
| GBY321616T-250Y-N | 25 | 100 | 0.10 | 1,000 |
| GBY321616T-600Y-N | 60 | 100 | 0.10 | 1,000 |
| GBK321616T-700Y-N | 70 | 100 | 0.10 | 1,000 |
| GBY322513T-320Y-N | 32 | 100 | 0.10 | 1,000 |
| GBY322513T-600Y-N | 60 | 100 | 0.10 | 1,000 |
| GBY322513T-900Y-N | 90 | 100 | 0.10 | 1,000 |
| GBY451616T-500Y-N | 50 | 100 | 0.10 | 1,000 |
| GBY451616T-600Y-N | 60 | 100 | 0.10 | 1,000 |
| GBY451616T-800Y-N | 80 | 100 | 0.10 | 1,000 |
| GBY451616T-101Y-N | 100 | 100 | 0.18 | 800 |
| GBK451616T-151Y-N | 150 | 100 | 0.18 | 800 |
| GBK451616T-171Y-N | 170 | 100 | 0.18 | 800 |
| GBY453215T-700Y-N | 70 | 100 | 0.18 | 800 |
| GBY453215T-121Y-N | 120 | 100 | 0.18 | 800 |



ELECTRICAL CHARACTERISTICS PB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| PBY100505T-100Y-N | 10 | 100 | 0.030 | 2,000 |
| PBY100505T-300Y-N | 30 | 100 | 0.050 | 1,700 |
| PBY100505T-400Y-N | 40 | 100 | 0.075 | 1,500 |
| PBY100505T-600Y-N | 60 | 100 | 0.075 | 1,500 |
| PBY100505T-700Y-N | 70 | 100 | 0.090 | 1,200 |
| PBY100505T-800Y-N | 80 | 100 | 0.090 | 1,200 |
| PBY100505T-121Y-N | 120 | 100 | 0.090 | 1,200 |
| PBY160808T-110Y-N | 11 | 100 | 0.020 | 4,000 |
| PBY160808T-250Y-N | 25 | 100 | 0.030 | 3,000 |
| PBY160808T-400Y-N | 40 | 100 | 0.035 | 3,000 |
| PBY160808T-600Y-N | 60 | 100 | 0.040 | 3,000 |
| PBY160808T-121Y-N | 120 | 100 | 0.080 | 2,500 |
| PBY160808T-151Y-N | 150 | 100 | 0.085 | 2,000 |
| PBY160808T-181Y-N | 180 | 100 | 0.090 | 2,000 |
| PBY160808T-201Y-N | 200 | 100 | 0.095 | 2,000 |
| PBY160808T-301Y-N | 300 | 100 | 0.120 | 1,500 |
| PBY160808T-501Y-N | 500 | 100 | 0.150 | 1,200 |
| PBY160808T-601Y-N | 600 | 100 | 0.200 | 1,000 |
| PBY160808T-102Y-N | 1,000 | 100 | 0.250 | 800 |
| PBY201209T-110Y-N | 11 | 100 | 0.010 | 6,000 |
| PBY201209T-170Y-N | 17 | 100 | 0.020 | 5,000 |
| PBY201209T-300Y-N | 30 | 100 | 0.015 | 4,000 |
| PBY201209T-500Y-N | 50 | 100 | 0.025 | 3,000 |
| PBY201209T-600Y-N | 60 | 100 | 0.030 | 3,000 |
| PBY201209T-800Y-N | 80 | 100 | 0.040 | 3,000 |
| PBY201209T-121Y-N | 120 | 100 | 0.040 | 3,000 |
| PBY201209T-201Y-N | 200 | 100 | 0.050 | 2,500 |
| PBY201209T-301Y-N | 300 | 100 | 0.080 | 2,000 |
| PBY201209T-601Y-N | 600 | 100 | 0.100 | 2,000 |
| PBY201209T-102Y-N | 1,000 | 100 | 0.120 | 1,500 |

ELECTRICAL CHARACTERISTICS PB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| PBY321611T-190Y-N | 19 | 100 | 0.015 | 6,000 |
| PBY321611T-320Y-N | 32 | 100 | 0.015 | 4,000 |
| PBY321611T-500Y-N | 50 | 100 | 0.020 | 4,000 |
| PBY321611T-800Y-N | 80 | 100 | 0.025 | 3,000 |
| PBY321611T-101Y-N | 100 | 100 | 0.030 | 3,000 |
| PBY321611T-121Y-N | 120 | 100 | 0.030 | 3,000 |
| PBY321611T-221Y-N | 220 | 100 | 0.050 | 2,000 |
| PBY321611T-301Y-N | 300 | 100 | 0.060 | 2,000 |
| PBY321611T-601Y-N | 600 | 100 | 0.100 | 2,000 |
| PBY321611T-102Y-N | 1,000 | 50 | 0.150 | 1,200 |
| PBY321611T-122Y-N | 1,200 | 50 | 0.180 | 1,000 |
| PBY321611T-152Y-N | 1,500 | 50 | 0.200 | 800 |
| PBY322513T-600Y-N | 60 | 100 | 0.025 | 4,000 |
| PBY322513T-900Y-N | 90 | 100 | 0.025 | 3,000 |
| PBY451616T-500Y-N | 50 | 100 | 0.020 | 6,000 |
| PBY451616T-600Y-N | 60 | 100 | 0.020 | 5,000 |
| PBY451616T-800Y-N | 80 | 100 | 0.025 | 4,000 |
| PBY451616T-900Y-N | 90 | 100 | 0.040 | 4,000 |
| PBY451616T-151Y-N | 150 | 100 | 0.100 | 2,000 |
| PBY451616T-471Y-N | 470 | 100 | 0.100 | 2,000 |
| PBY451616T-102Y-N | 1,000 | 100 | 0.100 | 2,000 |
| PBY453215T-700Y-N | 70 | 100 | 0.030 | 6,000 |
| PBY453215T-121Y-N | 120 | 100 | 0.030 | 4,000 |
| PBY453215T-151Y-N | 150 | 100 | 0.028 | 4,000 |
| PBY453215T-601Y-N | 600 | 100 | 0.028 | 4,000 |
| PBY453215T-132Y-N | 1,300 | 100 | 0.150 | 1,500 |



ELECTRICAL CHARACTERISTICS UPB Series

| PART NO. | IMPEDANCE (Ω) ±25% | TEST FREQUENCY (MHz) | DC RESISTANCE (Ω) Max. | RATED CURRENT (mA) Max. |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|
| UPB160808T-110Y-N | 11 | 100 | 0.015 | 4,500 |
| UPB160808T-170Y-N | 17 | 100 | 0.015 | 4,500 |
| UPB160808T-250Y-N | 25 | 100 | 0.015 | 4,500 |
| UPB160808T-300Y-N | 30 | 100 | 0.015 | 4,500 |
| UPB201209T-110Y-N | 11 | 100 | 0.015 | 6,000 |
| UPB201209T-150Y-N | 15 | 100 | 0.015 | 6,000 |
| UPB201209T-190Y-N | 19 | 100 | 0.015 | 6,000 |
| UPB201209T-260Y-N | 26 | 100 | 0.015 | 6,000 |
| UPB201209T-300Y-N | 30 | 100 | 0.015 | 6,000 |
| UPB201209T-330Y-N | 33 | 100 | 0.015 | 6,000 |
| UPB201209T-400Y-N | 40 | 100 | 0.015 | 6,000 |
| UPB201209T-500Y-N | 50 | 100 | 0.015 | 6,000 |
| UPB201209T-600Y-N | 60 | 100 | 0.020 | 4,500 |
| UPB201209T-800Y-N | 80 | 100 | 0.020 | 4,500 |
| UPB201209T-101Y-N | 100 | 100 | 0.020 | 5,000 |
| UPB201209T-121Y-N | 120 | 100 | 0.020 | 5,000 |
| UPB201212T-600Y-N | 60 | 100 | 0.020 | 6,000 |
| UPB201212T-700Y-N | 70 | 100 | 0.020 | 6,000 |
| UPB201212T-800Y-N | 80 | 100 | 0.020 | 6,000 |
| UPB201212T-101Y-N | 100 | 100 | 0.025 | 5,000 |
| UPB201212T-121Y-N | 120 | 100 | 0.025 | 5,000 |
| UPB321611T-110Y-N | 11 | 100 | 0.012 | 6,000 |
| UPB321611T-190Y-N | 19 | 100 | 0.012 | 6,000 |
| UPB321611T-260Y-N | 26 | 100 | 0.012 | 6,000 |
| UPB321611T-300Y-N | 30 | 100 | 0.012 | 6,000 |
| UPB321611T-400Y-N | 40 | 100 | 0.012 | 6,000 |
| UPB321611T-500Y-N | 50 | 100 | 0.012 | 6,000 |
| UPB321611T-600Y-N | 60 | 100 | 0.012 | 6,000 |
| UPB321611T-800Y-N | 80 | 100 | 0.012 | 6,000 |
| UPB321611T-101Y-N | 100 | 100 | 0.012 | 6,000 |
| UPB321611T-121Y-N | 120 | 100 | 0.012 | 6,000 |
| UPB321611T-151Y-N | 150 | 100 | 0.020 | 4,500 |
| UPB451616T-600Y-N | 100 | 60 | 0.012 | 7,000 |
| UPB453215T-700Y-N | 100 | 70 | 0.010 | 9,000 |



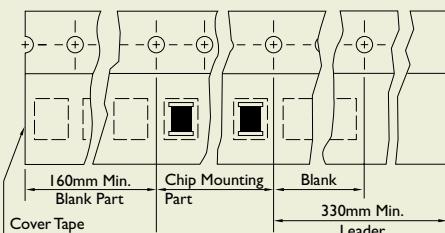
TAPE DIMENSIONS

| TYPE | A | B | T | W | P | F | K | TAPE TYPE |
|--------------------|--------|------|------|------|------|-----|-----|-----------|
| SB/NB/PB/HF | 100505 | 0.65 | 1.15 | 0.60 | 8.0 | 2.0 | 3.5 | - B |
| SB/NB/GB/PB/UPB/HF | 160808 | 1.05 | 1.85 | 0.95 | 8.0 | 4.0 | 3.5 | - B |
| SB/NB/GB/PB/UPB | 201209 | 1.50 | 2.30 | 0.97 | 8.0 | 4.0 | 3.5 | - B |
| UPB | 201212 | 1.35 | 2.25 | 0.22 | 8.0 | 4.0 | 3.5 | 1.35 A |
| SB/NB/GB/PB/UPB | 321611 | 1.88 | 3.50 | 0.22 | 8.0 | 4.0 | 3.5 | 1.27 A |
| SB/GB | 321616 | 1.88 | 3.53 | 0.22 | 8.0 | 4.0 | 3.5 | 1.80 A |
| SB/GB/PB | 322513 | 2.77 | 3.42 | 0.22 | 8.0 | 4.0 | 3.5 | 1.55 A |
| SB/GB/PB/UPB | 451616 | 1.93 | 4.95 | 0.24 | 12.0 | 4.0 | 5.5 | 1.93 A |
| SB/GB/PB/UPB | 453215 | 3.66 | 4.95 | 0.24 | 12.0 | 8.0 | 5.5 | 1.85 A |

TAPE MATERIAL

Carrier Tape : Polystyrene (Type A), Paper (Type B)

Cover Tape : Polyethyene



PACKAGING QUANTITY

| TYPE | QUANTITY/REEL |
|--------------------|---------------|
| SB/NB/PB/HF | 10,000 |
| SB/NB/GB/PB/UPB/HF | 4,000 |
| SB/NB/GB/PB/UPB | 4,000 |
| UPB | 3,000 |
| SB/NB/GB/PB/UPB | 3,000 |
| SB/GB | 2,000 |
| SB/GB/PB | 2,500 |
| SB/GB/PB/UPB | 2,000 |
| SB/GB/PB/UPB | 1,000 |

REEL DIMENSIONS

| TYPE | A | B | C | D | |
|--------------------|--------|-----|----|----|---|
| SB/NB/PB/HF | 100505 | 178 | 60 | 12 | 2 |
| SB/NB/GB/PB/UPB/HF | 160808 | 178 | 60 | 12 | 2 |
| SB/NB/GB/PB/UPB | 201209 | 178 | 60 | 12 | 2 |
| UPB | 201212 | 178 | 60 | 12 | 2 |
| SB/NB/GB/PB/UPB | 321611 | 178 | 60 | 12 | 2 |
| SB/GB | 321616 | 178 | 60 | 12 | 2 |
| SB/GB/PB | 322513 | 178 | 60 | 12 | 2 |
| SB/GB/PB/UPB | 451616 | 178 | 60 | 14 | 2 |
| SB/GB/PB/UPB | 453215 | 178 | 60 | 14 | 2 |

RECOMMENDED PATTERN

| TYPE | A | B | C |
|--------------------|-----------|-----------|-----------|
| SB/NB/PB/HF | 0.4 | 1.2 ~ 1.4 | 0.5 |
| SB/NB/GB/PB/UPB/HF | 0.7 ~ 0.8 | 1.8 ~ 2.0 | 0.6 ~ 0.8 |
| SB/NB/GB/PB/UPB | 1.0 ~ 1.2 | 2.6 ~ 4.0 | 1.0 ~ 1.2 |
| UPB | 1.0 ~ 1.2 | 2.6 ~ 4.0 | 1.0 ~ 1.2 |
| SB/NB/GB/PB/UPB | 2 | 4.2 ~ 5.2 | 1.2 |
| SB/GB | 2 | 4.2 ~ 5.2 | 1.2 |
| SB/GB/PB | 2 | 5.5 ~ 6.5 | 1.8 |
| SB/GB/PB/UPB | 3 | 5.5 ~ 6.5 | 1.2 |
| SB/GB/PB/UPB | 3 | 5.5 ~ 6.5 | 2.4 |