

TAIYO YUDEN High Current SMT Ferrite Chip Beads

Features:

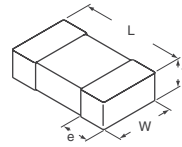
- Large withstanding voltage • Resistance to high energy • High reliability

Applications:

- Automotive • Computer Peripherals • Differential transmission line on USB and similar products • Mobile devices which require lower power consumption • Provides waveform correction of digital signals and high frequency noise countermeasures in various types of digital equipment • Works well with power line radiated and conducted noise

Taiyo Yuden's Type Breakout:

- **HS:** For Broadband applications
- **HM:** For upper MHz range applications
- **HL:** For GHz range applications



Size Code	Dimensions - mm			
	L	W	T	e
FBMH Series				
0603	1.6±0.1	0.8±0.1	0.8±0.1	0.3±0.15
0805	2.0±0.2	1.25±0.2	0.85±0.2	0.5±0.3
0806	2.0±0.2	1.6±0.2	1.6±0.2	0.5±0.3
1206	3.2±0.3	1.6±0.2	1.6±0.2	0.5±0.3
1210	3.2±0.3	2.5±0.3	2.5±0.3	0.5±0.3
1806	4.5±0.3	1.6±0.2	1.6±0.2	0.5±0.3
1810	4.5±0.4	2.5±0.3	2.5±0.3	0.9±0.6
1812	4.5±0.4	3.2±0.3	3.2±0.3	0.9±0.6
FBMJ Series				
0603	1.6±0.2	0.8±0.2	0.8±0.2	0.3±0.2
0805	2.0±0.2	1.25±0.2	0.85±0.2	0.5±0.3
1206	3.2±0.3	1.6±0.2	1.1±0.2	0.5±0.3
1806	4.5±0.3	1.6±0.2	1.1±0.2	0.5±0.3

Size Code	Type	Impedance (Ω) @ 100MHz	Maximum Rated Current (A)	Maximum DC Resistance (Ω)	Digi-Key Part No.	Cut Tape Pricing 100			Digi-Key Part No.	Tape and Reel		Taiyo Yuden Part No.
						10	50	100		Qty.	Pricing	
FBMH Series												
0603	HL	30	2.5	0.028	587-1733-1-ND	.71	5.70	21.38	587-1733-2-ND	4,000	33.00/M	FBMH1608HL300-T
	HM	47	3.5	0.020	587-1743-1-ND	.71	5.70	21.38	587-1743-2-ND	4,000	33.00/M	FBMH1608HM470-T
	HL	60	1.8	0.045	587-1736-1-ND	.71	5.70	21.38	587-1736-2-ND	4,000	33.00/M	FBMH1608HL600-T
	HM	60	3.0	0.025	587-1745-1-ND	.71	5.70	21.38	587-1745-2-ND	4,000	33.00/M	FBMH1608HM600-T
	HM	100	2.0	0.035	587-1738-1-ND	.71	5.70	21.38	587-1738-2-ND	4,000	33.00/M	FBMH1608HM101-T
	HL	120	9	0.130	587-1731-1-ND	.71	5.70	21.38	587-1731-2-ND	4,000	33.00/M	FBMH1608HL121-T
	HM	150	2.0	0.050	587-1740-1-ND	.71	5.70	21.38	587-1740-2-ND	4,000	33.00/M	FBMH1608HM151-T
	HL	220	.7	0.170	587-1732-1-ND	.71	5.70	21.38	587-1732-2-ND	4,000	33.00/M	FBMH1608HL221-T
	HM	220	1.5	0.070	587-1741-1-ND	.71	5.70	21.38	587-1741-2-ND	4,000	33.00/M	FBMH1608HM221-T
	HL	330	.6	0.210	587-1734-1-ND	.71	5.70	21.38	587-1734-2-ND	4,000	33.00/M	FBMH1608HL331-T
	HM	330	.9	0.130	587-1742-1-ND	.71	5.70	21.38	587-1742-2-ND	4,000	33.00/M	FBMH1608HM331-T
	HL	470	.5	0.350	587-1735-1-ND	.71	5.70	21.38	587-1735-2-ND	4,000	33.00/M	FBMH1608HL471-T
HM	470	.7	0.150	587-1744-1-ND	.71	5.70	21.38	587-1744-2-ND	4,000	33.00/M	FBMH1608HM471-T	
HL	600	.4	0.45	587-1737-1-ND	.71	5.70	21.38	587-1737-2-ND	4,000	33.00/M	FBMH1608HL601-T	
HM	600	.7	0.170	587-1746-1-ND	.71	5.70	21.38	587-1746-2-ND	4,000	33.00/M	FBMH1608HM601-T	
HM	1000	.3	0.350	587-1739-1-ND	.71	5.70	21.38	587-1739-2-ND	4,000	33.00/M	FBMH1608HM102-T	
0805	HM	80	2.7	0.025	587-1750-1-ND	.94	7.50	28.13	587-1750-2-ND	4,000	44.00/M	FBMH2012HM800-T
	HM	120	2.5	0.032	587-1747-1-ND	.94	7.50	28.13	587-1747-2-ND	4,000	44.00/M	FBMH2012HM121-T
	HM	330	1.8	0.080	587-1748-1-ND	.94	7.50	28.13	587-1748-2-ND	4,000	44.00/M	FBMH2012HM331-T
0806	HM	250	2.0	0.050	587-1751-1-ND	1.13	9.00	33.75	587-1751-2-ND	2,000	53.00/M	FBMH2012HM251NT
	HM	500	2.0	0.070	587-1752-1-ND	1.88	15.00	56.25	587-1752-2-ND	2,000	88.00/M	FBMH3216HM501NT
1206	HM	600	3.0	0.042	587-1755-1-ND	3.56	28.50	106.88	587-1755-2-ND	1,000	166.00	FBMH3225HM601NT
	HM	1000	2.0	0.100	587-1753-1-ND	3.56	28.50	106.88	587-1753-2-ND	1,000	166.00	FBMH3225HM102NT
	HM	2000	1.2	0.130	587-1754-1-ND	3.56	28.50	106.88	587-1754-2-ND	1,000	166.00	FBMH3225HM202NT
1806	HM	850	1.5	0.100	587-1756-1-ND	3.75	30.00	112.50	587-1756-2-ND	2,000	175.00/M	FBMH4516HM851NT
	HM	1000	3.0	0.060	587-1757-1-ND	6.38	51.00	191.25	587-1757-2-ND	1,000	298.00	FBMH4525HM102NT
1810	HM	1600	2.0	0.130	587-1758-1-ND	6.38	51.00	191.25	587-1758-2-ND	1,000	298.00	FBMH4525HM162NT
	HM	680	4.0	0.028	587-1761-1-ND	5.14	41.10	154.13	587-1761-2-ND	2,000	240.00/M	FBMH4532HM681-T
1812	HM	1300	3.0	0.060	587-1759-1-ND	5.14	41.10	154.13	587-1759-2-ND	2,000	240.00/M	FBMH4532HM132-T
	HM	2000	1.3	0.130	587-1760-1-ND	5.14	41.10	154.13	587-1760-2-ND	2,000	240.00/M	FBMH4532HM202-T
FBMJ Series												
0603	HM	23	4.0	0.007	587-1762-1-ND	.94	7.50	28.13	587-1762-2-ND	4,000	44.00/M	FBMJ1608HM230NT
	HS	28	4.0	0.007	587-1763-1-ND	.94	7.50	28.13	587-1763-2-ND	4,000	44.00/M	FBMJ1608HS280NT
0805	HL	8	2.0	0.010	587-1764-1-ND	.75	6.00	22.50	587-1764-2-ND	4,000	35.00/M	FBMJ125HL8FRONT
	HM	21	6.0	0.004	587-1765-1-ND	.75	6.00	22.50	587-1765-2-ND	4,000	35.00/M	FBMJ125HM210NT
	HS	25	6.0	0.004	587-1767-1-ND	.75	6.00	22.50	587-1767-2-ND	4,000	35.00/M	FBMJ125HS250NT
	HM	33	4.0	0.008	587-1766-1-ND	.75	6.00	22.50	587-1766-2-ND	4,000	35.00/M	FBMJ125HM330-T
	HS	42	4.0	0.008	587-1768-1-ND	.75	6.00	22.50	587-1768-2-ND	4,000	35.00/M	FBMJ125HS420-T
1206	HM	38	6.0	0.005	587-1769-1-ND	1.13	9.00	33.75	587-1769-2-ND	2,000	53.00/M	FBMJ3216HM380NT
	HS	48	6.0	0.005	587-1771-1-ND	1.13	9.00	33.75	587-1771-2-ND	2,000	53.00/M	FBMJ3216HS480NT
	HM	60	4.0	0.010	587-1770-1-ND	1.13	9.00	33.75	587-1770-2-ND	2,000	53.00/M	FBMJ3216HM600-T
	HS	80	4.0	0.010	587-1772-1-ND	1.13	9.00	33.75	587-1772-2-ND	2,000	53.00/M	FBMJ3216HS800-T
1806	HS	56	6.0	0.007	587-1773-1-ND	1.31	10.50	39.38	587-1773-2-ND	2,000	61.00/M	FBMJ4516HS560NT
	HM	72	6.0	0.007	587-1776-1-ND	1.31	10.50	39.38	587-1776-2-ND	2,000	61.00/M	FBMJ4516HS720NT
	HM	90	4.0	0.014	587-1774-1-ND	1.31	10.50	39.38	587-1774-2-ND	2,000	61.00/M	FBMJ4516HM900-T
	HS	110	4.0	0.014	587-1775-1-ND	1.31	10.50	39.38	587-1775-2-ND	2,000	61.00/M	FBMJ4516HS111-T

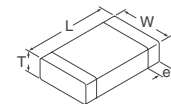
Multilayer Ferrite Chip Beads

- Internal silver printed layer creates a closed circuit which acts as a magnetic shield minimizing heat generation and crosstalk • No need for grounding provides greater circuit design flexibility • Several material types and a broad range of impedance values provide noise countermeasures for various applications

- **Applications:** • High frequency noise countermeasure in personal computers, digital cameras and other information system products • For use on digital product clock lines and general signal lines • Radiated noise suppression in computer or printer interfaces and harness connectors • Noise suppression in video and other AV products • Prevents interference between circuits in cellular phones • Due to the closed internal circuit which acts as a magnetic shield, the TS material is extremely effective as a noise filter on LSI power supply lines where downsizing of components is needed

Taiyo Yuden's Type Breakout:

- **HS:** Suppresses the XL component. Helps stop the reduction of the wave-form integrity. (digital wave-form overshoot, etc.)
- **HM:** Increases the Z characteristic sharply above 20MHz and is applicable for radiated noise in the 100MHz ~ 300MHz range. Especially effective on video signal lines.
- **LL:** Designed as a noise countermeasure for the 200MHz ~ 500MHz range where the rise of the Z component is in the high frequency area.
- **LM:** Intended for noise suppression around 200MHz. Effectively increases attenuation.
- **HW:** The best material in the BK Series to suppress the XL component and stop the reduction of the wave-form integrity while maintaining attenuation in the high frequency area.
- **TS:** Reduced DC resistance version for noise countermeasures around LSI power supplies.



Size Code	Dimensions - mm			
	L	W	e	T
0201	0.60±0.03	0.30±0.03	0.15±0.05	0.3
0402	1.00±0.05	0.50±0.05	0.25±0.10	0.5
0603	1.6±0.15	0.8±0.15	0.3±0.2	0.8
0805 (≤1500Ω)	2.0±0.2	1.25±0.2	0.5±0.3	0.85
0805 (≥1800Ω)	2.0±0.2	1.25±0.2	0.5±0.3	1.25

Size Code	Type	Impedance (Ω) @ 100MHz	Max. Rated Current (A)	Max. DC Res. (Ω)	Digi-Key Part No.	Cut Tape Pricing		Tape and Reel#		Taiyo Yuden Part No.
						10	50	Qty.	Pricing	
BK Series										
0201	LL	10	0.2	0.25	587-1831-1-ND	.86	3.74	15,000	39.00/M	BK0603LL100-T
	HS	22	0.5	0.065	587-1826-1-ND	.86	3.74	15,000	39.00/M	BK0603HS220-T
	LL	22	0.2	0.45	587-1832-1-ND	.86	3.74	15,000	39.00/M	BK0603LL220-T
	HS	33	0.5	0.070	587-1828-1-ND	.86	3.74	15,000	39.00/M	BK0603HS330-T
	LL	33	0.15	0.55	587-1833-1-ND	.86	3.74	15,000	39.00/M	BK0603LL330-T
	LL	47	0.15	0.70	587-1834-1-ND	.86	3.74	15,000	39.00/M	BK0603LL470-T
	HM	60	0.2	0.25	587-1824-1-ND	.86	3.74	15,000	39.00/M	BK0603HM600-T
	HS	80	0.2	0.40	587-1830-1-ND	.86	3.74	15,000	39.00/M	BK0603HS800-T
	HM	120	0.2	0.40	587-1821-1-ND	.86	3.74	15,000	39.00/M	BK0603HM121-T
	HS	120	0.2	0.45	587-1825-1-ND	.86	3.74	15,000	39.00/M	BK0603HS121-T

Size Code	Type	Impedance (Ω) @ 100MHz	Max. Rated Current (A)	Max. DC Res. (Ω)	Digi-Key Part No.	Cut Tape Pricing		Tape and Reel#		Taiyo Yuden Part No.
						10	50	Qty.	Pricing	
0201	HM	240	0.2	0.80	587-1822-1-ND	.86	3.74	15,000	39.00/M	BK0603HM241-T
	HS	240	0.2	0.65	587-1827-1-ND	.86	3.74	15,000	39.00/M	BK0603HS241-T
	HM	470	0.1	1.05	587-1823-1-ND	.86	3.74	15,000	39.00/M	BK0603HM471-T
	HS	600	0.15	1.20	587-1829-1-ND	.86	3.74	15,000	39.00/M	BK0603HS601-T
0402	HS	10	1.0	0.03	587-1840-1-ND†	.45	1.95	10,000	21.00/M	BK1005HS100-T
	LL	10	0.5	0.11	587-1853-1-ND†	.45	1.95	10,000	21.00/M	BK1005LL100-T
	LL	22	0.							

Size Code	Type	Impedance (Ω) @ 100MHz	Max. Rated Current (A)	Max. DC Res. (Ω)	Digi-Key Part No.	Cut Tape Pricing		Tape and Reel#		Taiyo Yuden Part No.	
						10	50	Qty.	Pricing		
0402	HS	68	0.7	0.1	587-1842-1-ND†	.45	1.95	10,000	21.00/M	BK1005HS680-T	
	HW	68	0.5	0.17	587-1852-1-ND†	.45	1.95	10,000	21.00/M	BK1005HW680-T	
	LL	68	0.4	0.31	587-1860-1-ND†	.45	1.95	10,000	21.00/M	BK1005LL680-T	
	HS	80	0.7	0.1	587-1820-1-ND	.45	1.95	10,000	21.00/M	BK1005HS800-T	
	HM	120	0.3	0.18	587-1836-1-ND†	.45	1.95	10,000	21.00/M	BK1005HM121-T	
	HS	120	0.5	0.2	587-1842-1-ND†	.45	1.95	10,000	21.00/M	BK1005HS121-T	
	HW	120	0.45	0.24	587-1848-1-ND†	.45	1.95	10,000	21.00/M	BK1005HW121-T	
	LL	120	0.35	0.45	587-1854-1-ND†	.45	1.95	10,000	21.00/M	BK1005LL121-T	
	LL	180	0.3	0.5	587-1855-1-ND†	.45	1.95	10,000	21.00/M	BK1005LL181-T	
	HM	240	0.3	0.3	587-1837-1-ND†	.45	1.95	10,000	21.00/M	BK1005HM241-T	
	HS	240	0.4	0.3	587-1843-1-ND†	.45	1.95	10,000	21.00/M	BK1005HS241-T	
	HW	240	0.4	0.31	587-1849-1-ND†	.45	1.95	10,000	21.00/M	BK1005HW241-T	
0603	LL	240	0.25	0.7	587-1857-1-ND†	.45	1.95	10,000	21.00/M	BK1005LL241-T	
	HS	430	0.35	0.45	587-1845-1-ND	.45	1.95	10,000	21.00/M	BK1005HS431-T	
	HW	430	0.35	0.5	587-1850-1-ND†	.45	1.95	10,000	21.00/M	BK1005HW431-T	
	HM	470	0.25	0.45	587-1838-1-ND†	.45	1.95	10,000	21.00/M	BK1005HM471-T	
	HM	600	0.25	0.5	587-1839-1-ND†	.45	1.95	10,000	21.00/M	BK1005HM601-T	
	HS	600	0.3	0.55	587-1854-1-ND†	.45	1.95	10,000	21.00/M	BK1005HS601-T	
	HW	600	0.3	0.6	587-1851-1-ND†	.45	1.95	10,000	21.00/M	BK1005HW601-T	
	HM	1000	0.15	0.7	587-1835-1-ND†	.45	1.95	10,000	21.00/M	BK1005HM102-T	
	HS	1000	0.3	0.58	587-1841-1-ND	.45	1.95	10,000	21.00/M	BK1005HS102-T	
	LM	1800	0.12	0.9	587-1861-1-ND	.45	1.95	10,000	21.00/M	BK1005LM182-T	
	0805	HS	22	1.5	0.05	587-1869-1-ND	.41	1.79	4,000	19.00/M	BK1608HS220-T
		LL	30	0.5	0.2	587-1883-1-ND	.41	1.79	4,000	19.00/M	BK1608LL300-T
HS		33	1.2	0.08	587-1871-1-ND	.41	1.79	4,000	19.00/M	BK1608HS330-T	
HS		47	0.9	0.1	587-1872-1-ND	.41	1.79	4,000	19.00/M	BK1608HS470-T	
LL		47	0.4	0.3	587-1886-1-ND	.41	1.79	4,000	19.00/M	BK1608LL470-T	
LL		56	0.4	0.3	587-1888-1-ND	.41	1.79	4,000	19.00/M	BK1608LL560-T	
HS		60	0.8	0.1	587-1873-1-ND	.41	1.79	4,000	19.00/M	BK1608HS600-T	
LL		68	0.3	0.35	587-1889-1-ND	.41	1.79	4,000	19.00/M	BK1608LL680-T	
HS		80	0.6	0.1	587-1875-1-ND	.41	1.79	4,000	19.00/M	BK1608HS800-T	
HM		120	0.35	0.2	587-1863-1-ND	.41	1.79	4,000	19.00/M	BK1608HM121-T	
HS		120	0.5	0.18	587-1868-1-ND	.41	1.79	4,000	19.00/M	BK1608HS121-T	
HW		120	0.6	0.15	587-1876-1-ND	.41	1.79	4,000	19.00/M	BK1608HW121-T	
0603	LL	120	0.3	0.5	587-1880-1-ND	.41	1.79	4,000	19.00/M	BK1608LL121-T	
	LL	180	0.25	0.65	587-1881-1-ND	.41	1.79	4,000	19.00/M	BK1608LL181-T	
	HM	240	0.3	0.35	587-1864-1-ND	.41	1.79	4,000	19.00/M	BK1608HM241-T	
	HS	240	0.4	0.25	587-1870-1-ND	.41	1.79	4,000	19.00/M	BK1608HS241-T	
	HW	240	0.45	0.25	587-1877-1-ND	.41	1.79	4,000	19.00/M	BK1608HW241-T	
	LL	240	0.25	0.8	587-1882-1-ND	.41	1.79	4,000	19.00/M	BK1608LL241-T	
	LL	330	0.2	0.85	587-1884-1-ND	.41	1.79	4,000	19.00/M	BK1608LL331-T	
	HW	430	0.4	0.3	587-1878-1-ND	.41	1.79	4,000	19.00/M	BK1608HW431-T	
	LL	430	0.2	0.85	587-1885-1-ND	.41	1.79	4,000	19.00/M	BK1608LL431-T	
	TS	430	0.4	0.32	587-1896-1-ND	.41	1.79	4,000	19.00/M	BK1608TS431-T	
	HM	470	0.25	0.45	587-1885-1-ND	.41	1.79	4,000	19.00/M	BK1608HM471-T	
	LL	510	0.2	0.9	587-1887-1-ND	.41	1.79	4,000	19.00/M	BK1608LL511-T	
HM	600	0.25	0.6	587-1866-1-ND	.41	1.79	4,000	19.00/M	BK1608HM601-T		
0805	HS	600	0.35	0.45	587-1874-1-ND	.41	1.79	4,000	19.00/M	BK1608HS601-T	
	HW	600	0.3	0.4	587-1879-1-ND	.41	1.79	4,000	19.00/M	BK1608HW601-T	
	TS	600	0.35	0.35	587-1897-1-ND	.41	1.79	4,000	19.00/M	BK1608TS601-T	
	LM	2500	0.2	1.1	587-1893-1-ND	.41	1.79	4,000	19.00/M	BK1608LM252-T	

† 587-1957-ND (TAIYO-0402BEAD-V1) Kit contains 50 each of values denoted (1,200 total pieces) \$67.50

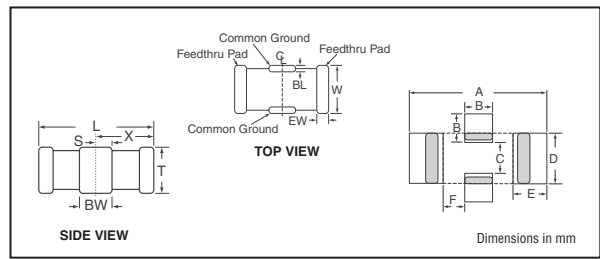
AVX Feedthru 0805/1206 Filters/Capacitors

Available in both a standard 0805 and 1206 size, AVX's line of feedthru capacitors are ideal choices for EMI suppression, broadband I/O filtering, or Vcc power line conditioning.

The unique construction of a feedthru capacitor provides low parallel inductance and offers excellent decoupling capability for all high di/dt environments and provides significant noise reduction in digital circuits to <5GHz.

Characteristics: • Current Rating: 300mA • Insulation Resistance: 1,000MΩ • DC Resistance: <0.6Ω • Operating Temperature: -55°C ~ 125°C

Series	Dimensions - mm									
	A	B	C	D	E	F	L	W	T	BW
0805	3.45	0.51	0.76	1.27	1.02	0.46	2.01 ±0.20	1.25 ±0.20	1.14 Max.	0.46 ±0.10
							3.20 ±0.20	1.60 ±0.20	1.27 Max.	0.89 ±0.10
1206	4.54	0.94	1.02	1.65	1.09	0.71	2.01 ±0.20	1.25 ±0.20	1.14 Max.	0.46 ±0.10
							3.20 ±0.20	1.60 ±0.20	1.27 Max.	0.89 ±0.10



Size Code	Type	WV VDC	Capacitance (pF)	Capacitance Tolerance (%)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel Pricing		AVX Part No.
						10	100	500		1,000	1,000	
0805	NPO	100	220	+50, -20	478-2232-1-ND	1.07	.64	.37	478-2232-2-ND	174.60	W2F11A2218AT1F	
	NPO	100	470	+50, -20	478-2233-1-ND	1.07	.64	.37	478-2233-2-ND	174.60	W2F11A4718AT1F	
	X7R	50	1000	+50, -20	478-2234-1-ND	1.13	.67	.39	478-2234-2-ND	183.60	W2F15C1028AT1F	
	X7R	50	10,000	+50, -20	478-2235-1-ND	1.13	.67	.39	478-2235-2-ND	183.60	W2F15C1038AT1F	
	X7R	50	22,000	+50, -20	478-2236-1-ND	1.13	.67	.39	478-2236-2-ND	183.60	W2F15C2238AT1F	
1206	NPO	100	47	+50, -20	478-2238-1-ND	1.10	.65	.38	478-2238-2-ND	180.00	W3F11A4708AT1F	
	X7R	50	2200	+50, -20	478-2239-1-ND	1.16	.69	.40	478-2239-2-ND	189.00	W3F15C2228AT1F	

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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