

Pb Free

RoHS Compliant

Features

- Maximum capacitance change of $\pm 15\%$ from -55°C to $+125^{\circ}\text{C}$
- Gold terminations 100μ inches over barrier layer
- Excellent bond strength (MIL-STD-883, method 2011.5)
- Available with and without borders

How to Order

GH 35 5 A 6R8 C A 6N
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Type Code

GH	No Border	GB	With Border
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② Case Size

01 to 06	maxi	10 to 90	Standard
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③ Working Voltage Code

5	50WVDC	1	100WVDC
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④ Temperature Coefficient

Code	Dielectric	Temperature Coefficient
A	NP0	$0 \pm 30\text{ppm}/^{\circ}\text{C}$
4	N1500	$-1500 \pm 250\text{ppm}/^{\circ}\text{C}$
7	N3300	$-3300 \pm 1000\text{ppm}/^{\circ}\text{C}$
Y	N4700	$-4700 \pm 1000\text{ppm}/^{\circ}\text{C}$
C	X7R	$\pm 15\%$
Z	X7S	$\pm 22\%$
8	X7R (max)	$\pm 15\%$
9	X7R (maxi+)	$\pm 15\%$

⑤ Capacitance

⑥ Capacitance Tolerance Code

K	$\pm 10\%$	Z	$+80$ to -20%
M	$\pm 20\%$	P	$+100$ to 0%

T= 0.178 ± 0.051

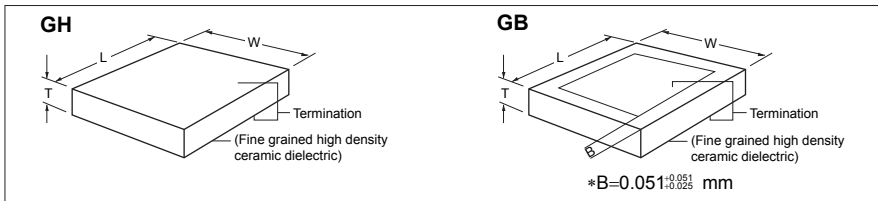
⑦ Termination Code

A	Ti/ W+Au	N	Ti/ W+Ni+Au
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⑧ Packaging Code

6N	Antistatic Waffle Pack
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Case Dimensions



GH Series

	GH10 L=0.254±0.076 W=0.254±0.076 T=0.152±0.051	GH15 L=0.381±0.127 W=0.381±0.000; -0.076 T=0.152±0.051	GH20 L=0.508±0.127 W=0.508±0.000; -0.076 T=0.152±0.051	GH25 L=0.635±0.127 W=0.635±0.000; -0.076 T=0.152±0.051	GH35 L=0.889±0.127 W=0.889±0.127 T=0.152±0.051	GH50 L=1.27±0.254 W=1.27±0.254 T=0.152±0.051	GH70 L=1.78±0.254 W=1.78±0.254 T=0.178±0.051	GH90 L=2.29±0.254 W=2.29±0.254 T=0.178±0.051
Dielectric Code	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)
A	0.05–0.60	0.10–1.20	0.20–2.00	0.30–3.00	0.60–6.80	1.30–15.60	1.70–18.00	3.80–29.00
4	0.60–1.70	1.30–3.00	2.60–5.20	4.40–8.00	9.40–18.00	19.00–40.00	25.00–46.00	56.00–73.00
7	1.00–3.00	2.40–5.50	4.80–9.50	8.00–14.00	17.00–32.00	35.00–72.00	45.00–84.00	100.00–130.00
Y	1.80–5.00	4.00–10.00	8.40–16.00	14.00–25.00	30.00–55.00	61.00–130.00	80.00–150.00	180.00–230.00
C	3.4–40.0	7.7–74.0	15.0–130.0	25.0–200.0	55.0–430.0	110.0–980.0	150.0–1100.0	330.00–1800.0
Z	8.00–90.0	11.0–170	23.0–290	39.0–440	90.0–970	130–2200	270–3400	470–5400

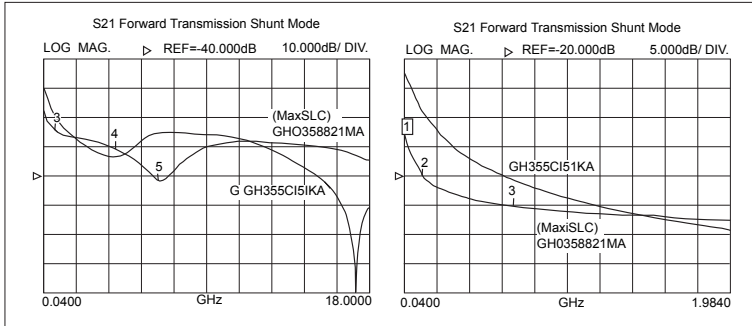
	GH01 L=0.381±0.127 W=0.381±0.127 T=0.178±0.051	GH02 L=0.635±0.127 W=0.635±0.127 T=0.178±0.051	GH03 L=0.889±0.127 W=0.889±0.127 T=0.178±0.051	GH04 L=1.27±0.254 W=1.27±0.254 T=0.178±0.051	GH05 L=1.78±0.254 W=1.78±0.254 T=0.178±0.051	GH06 L=2.29±0.254 W=2.29±0.254 T=0.178±0.051
Dielectric Code	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)
8	68–330	330–750	750–1200	1200–2700	2700–4700	4700–8200
9	330–390	390–1000	1000–1800	1800–3300	3300–6800	6800–10000

GB Series

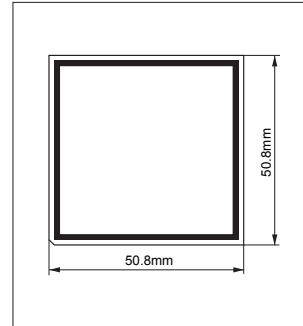
	GB10 L=0.254±0.076 W=0.254±0.076 T=0.152±0.051	GB15 L=0.381±0.127 W=0.381±0.000; -0.076 T=0.152±0.051	GB20 L=0.508±0.127 W=0.508±0.000; -0.076 T=0.152±0.051	GB25 L=0.635±0.127 W=0.635±0.000; -0.076 T=0.152±0.051	GB30 L=0.762±0.051 W=0.762±0.051 T=0.152±0.051	GB35 L=0.889±0.127 W=0.889±0.127 T=0.152±0.051	GB40 L=1.02±0.051 W=1.02±0.051 T=0.152±0.051	GB50 L=1.27±0.254 W=1.27±0.254 T=0.152±0.051	GB70 L=1.78±0.254 W=1.78±0.254 T=0.178±0.051	GB90 L=2.29±0.254 W=2.29±0.254 T=0.178±0.051
Dielectric Code	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)	Cap Value (pF)
A	—	0.10–1.00	0.16–1.50	0.30–2.40	0.40–3.50	0.50–4.60	0.70–5.70	1.00–10.00	—	—
4	—	1.30–2.20	2.40–4.00	3.80–6.20	5.50–9.00	8.00–12.00	9.00–14.00	15.00–25.00	—	—
7	—	2.40–4.00	4.30–7.00	7.00–11.00	10.00–16.00	14.00–20.00	16.00–25.00	30.00–45.00	—	—
Y	—	4.30–7.00	7.50–12.50	12.00–20.00	17.00–28.00	25.00–37.00	30.00–45.00	50.00–80.00	—	—
C	—	8.0–54.0	14.0–97.0	22.0–150.0	31.0–220.0	45.0–300.0	50.00–330.0	90.0–600.0	—	—
Z	6.00–70.0	9.00–120	20.0–250	33.0–380	—	80.0–870	—	120–2000	250–3200	450–5100

	GB01 L=0.381±0.127 W=0.381±0.127 T=0.178±0.051	GB02 L=0.635±0.127 W=0.635±0.127 T=0.178±0.051	GB03 L=0.889±0.127 W=0.889±0.127 T=0.178±0.051	GB04 L=1.27±0.254 W=1.27±0.254 T=0.178±0.051	GB05 L=1.78±0.254 W=1.78±0.254 T=0.178±0.051	GB06 L=2.29±0.254 W=2.29±0.254 T=0.178±0.051
Dielectric Code	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)	Cap (pF)
8	51.0–220	220–560	560–1000	1000–2200	2200–4700	4700–8200
9	220–330	330–820	820–1500	1500–2700	2700–6800	6800–10000

S21 Forward Transmission Shunt Mode



Dimension

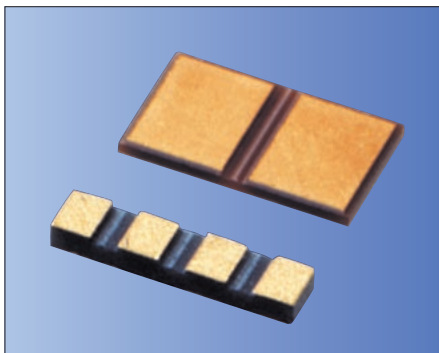


Packaging

Waffle Pack

Type	Packaging (pcs.)
GH/ GB10	484
GH/ GB15	400
GH/ GB20	400
GH/ GB25	400
GH/ GB35	400
GH/ GB50	256
GH/ GB70	256
GH/ GB90	100

Microwave Capacitors (GHB/ GHC to F Series)



Pb Free

RoHS Compliant

How to Order

GH B 5 5 A 6R8 K A 6N
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series

② Number of Array

B	2	C	3	D	4
E	5	F	6		

③ Width Code

(unit: mm)

2	0.508	Y	0.635
3	0.762	4	1.016
5	1.270	S	Custom

④ Working Voltage Code

5	50WVDC
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⑤ Temperature Coefficient

A	NPO	8	X7R (maxi)
C	X7R	9	X7R (maxi+)
Z	X7S		

⑥ Capacitance

⑦ Capacitance Tolerance Code

M*	±20%	P	+100 to 0%
Z	+80 to -20%		*option

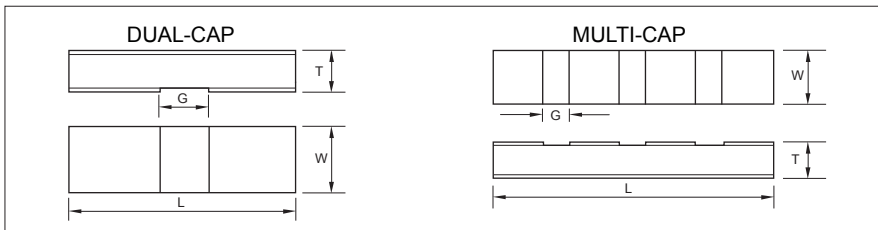
⑧ Termination Code

A	Ti/ W+Au	N	Ti/ W+Ni+Au
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⑨ Packaging Code

6N	Antistatic Waffle Pack
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Dimensions



Specifications

GHB series

(unit: pF)

Type	Size	Dielectric Code	A	C	Z	8	9
GHB2	L = 1.27±0.254 W = 0.432 to 0.508 T = 0.203±0.051 G = 0.127±0.254	Cap (pF)	0.2 to 1.2	18 to 75	25 to 220	200 to 350	270 to 450
GHB5	L = 2.032±0.381 W = 0.559 to 0.635 T = 0.203±0.051 G = 0.127±0.254	Cap (pF)	0.4 to 2.6	39 to 160	54 to 500	430 to 780	600 to 1000
GHB3	L = 2.032±0.381 W = 0.686 to 0.762 T = 0.203±0.051 G = 0.127±0.254	Cap (pF)	0.5 to 3.1	47 to 200	65 to 600	520 to 940	730 to 1200
GHB4	L = 2.032±0.381 W = 0.944 to 1.02 T = 0.203±0.051 G = 0.127±0.254	Cap (pF)	0.7 to 4.2	63 to 260	88 to 770	700 to 1200	980 to 1500
GHB5	L = 2.032±0.381 W = 1.194 to 1.270 T = 0.203±0.051 G = 0.127±0.254	Cap (pF)	0.9 to 5.7	78 to 330	100 to 960	870 to 1500	1200 to 1900

GHC/ GHD/ GHE/ GHF series

(unit: pF)

Type	Size	Dielectric Code	Z	8	9
GH-2	3: L = 1.65±0.254 4: L = 2.29±0.254 5: L = 2.92±0.254 6: L = 3.56±0.254 Pad = 0.508 × 0.381	Cap (pF)	20 to 120	140 to 200	200 to 300
GH-Y	3: L = 1.65±0.254 4: L = 2.29±0.254 5: L = 2.92±0.254 6: L = 3.56±0.254 Pad = 0.635 × 0.381	Cap (pF)	25 to 150	170 to 250	250 to 370
GH-3	3: L = 1.65±0.254 4: L = 2.29±0.254 5: L = 2.92±0.254 6: L = 3.56±0.254 Pad = 0.762 × 0.381	Cap (pF)	30 to 180	210 to 300	300 to 450
GH-6	3: L = 1.65±0.254 4: L = 2.29±0.254 5: L = 2.92±0.254 6: L = 3.56±0.254 Pad = 1.02 × 0.381	Cap (pF)	40 to 250	280 to 400	400 to 600