

# Microwave SLCs

## Multi-Cap Arrays

### GENERAL INFORMATION

AVX Multi-Cap Arrays can be manufactured with 2, 3, 4, 5 or 6 capacitors on one single layer ceramic substrate. These arrays are available in our X7S (Z), Maxi and Maxi+ family of GBBL dielectrics and offer a broad range of capacitance values as detailed in the accompanying tables.

These arrays have advantages over single components in the form of smaller overall size, reduced handling and lower average unit costs. They are, therefore, a good choice for broad-band bypass applications where circuit board layouts can utilize these configurations.

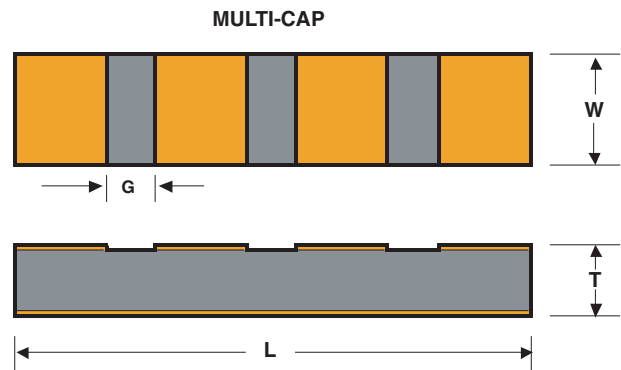
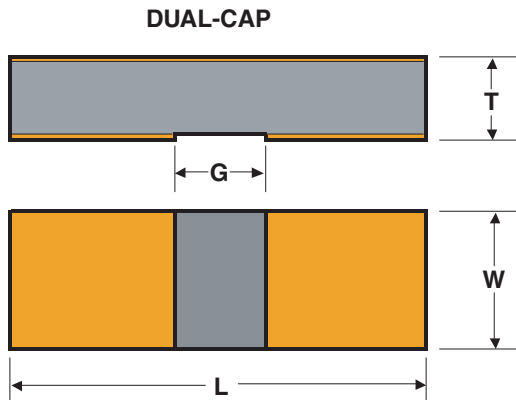
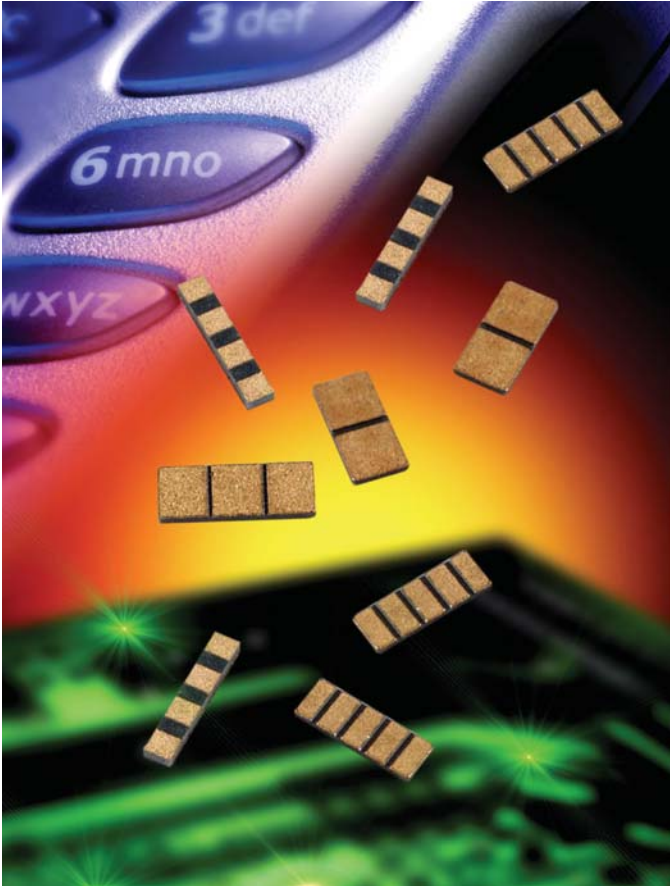
The designs, shown along with the range of maximum capacitance values, represent typical parts. Since most applications require specific form factors, custom designs on all multi-cap arrays are available to meet individual customer requirements and are offered with quick turn around. No charge samples are generally shipped within two weeks of the design sign-off.

Both standard and custom designs are available with borders for those applications where conductive epoxy run up exposes the parts to the possibility of shorting. Maximum capacitance per pad for bordered devices will be necessarily somewhat lower than shown on the adjacent page.

2 and 3 cap arrays can be designed with different capacitance values per pad in circuit designs where identical values pad-to-pad are, for one reason or another, not altogether suitable.

Additionally, the dual-caps are available to match micro strip widths as dictated by circuit considerations. When mounted with the individual pads down, the need for wire bonding is eliminated. The maximum capacitance values indicated on the typical designs shown represent capacitance per pad. Mounted with both pads down puts two capacitors in series. The effective series capacitance ( $C_{Eff}$ ), can be determined by  $1/C_{Eff} = 1/C1 + 1/C2$ .

Contact the factory or your local AVX representative.



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## Multi-Cap Arrays

### GHB SERIES: DUAL CAP SINGLE LAYER CAPACITORS

DIMENSIONS: inches (millimeters)

	GHB2	GHB4	GHB5
(L) Length	.050±.010 (1.27±.254)	.080±.010 (2.03±.254)	
(W) Width	.020+.000,-.003 (.508+.000,-.076)	.025+.000,-.003 (.635+.000,-.076)	.030+.000,-.003 (.762+.000,-.076)
(T) Thickness	.008±.002 (.203±.051)		
(G) Gap	.005 min/.010 max (.127/.254)		

Dielectric	Cap/Pad (pF)		Cap/Pad (pF)		Cap/Pad (pF)		Cap/Pad (pF)		Cap/Pad (pF)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Z	25	220	54	500	65	600	88	770	100	960
Maxi	200	350	430	780	520	940	700	1200	870	1500
Maxi+	270	450	600	1000	730	1200	980	1500	1200	1900

### GH-SERIES: MULTI-CAP ARRAY SINGLE LAYER CAPACITORS

DIMENSIONS: inches (millimeters)

	GH*2	GH*Y	GH*3	GH*6
Length - Code (C) - 3 Caps	.065±.010 (1.65±.254)			
Length - Code (D) - 4 Caps	.090±.010 (2.29±.254)			
Length - Code (E) - 5 Caps	.115±.010 (2.92±.254)			
Length - Code (F) - 6 Caps	.140±.010 (3.56±.254)			
(W) Width	.020±.005 (.508±.127)	.025±.005 (.635±.127)	.030±.005 (.762±.127)	.040±.005 (1.02±.127)
(T) Thickness	.008±.002 (.203±.051)			
Pad Size (nominal)	.020x.015 (.508x.381)	.025x.015 (.635x.381)	.030x.015 (.762x.381)	.040x.015 (1.02x.381)
(G) Gap (All Arrays)	.005 min/.010 max (.127/.254)			

Dielectric	Cap/Pad (pF)		Cap/Pad (pF)		Cap/Pad (pF)		Cap/Pad (pF)	
	Min	Max	Min	Max	Min	Max	Min	Max
Z	20	120	25	150	30	180	40	250
Maxi	140	200	170	250	210	300	280	400
Maxi+	200	300	250	370	300	450	400	600

### HOW TO ORDER

<b>GH</b>	<b>B</b>	<b>5</b>	<b>5</b>	<b>8</b>	<b>102</b>	<b>P</b>	<b>A</b>	<b>6N</b>
Type Code	Array Code	Size Code	Working Voltage Code	Dielectric Code	Cap Code	Cap Tolerance	Termination Code	Packaging Code
	B = 2 C = 3 D = 4 E = 5 F = 6	2 = .020" W Y = .025" W 3 = .030" W 4 = .040" W 5 = .050" W S = Special	5 = 50VDC	Z = X7S 8 = Maxi 9 = Maxi+	EIA Cap Code in pF	P = +100% -0% Z = +80% -20% Dual-Caps M = ±20% available	A = Au (100 μ-in min) over TiW (1000 Å nom) also available N = TiW-Ni-Au	6N = Antistatic Waffle Pack

