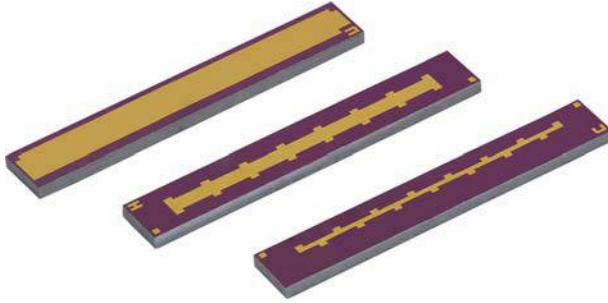


Thin Film Bar MOS Capacitors



Product may not be to scale

The bar capacitor is a MOS capacitor designed for hybrid assemblies requiring ultra high power rating with miniature case size.

FEATURES

- Robust MOS construction
- Allows for multiple wire bonds. At the lowest values, case A will accept 7 bonds and case B will accept 15.
- Low D, high Q
- Excellent load life stability

APPLICATIONS

- Hybrid assemblies
- Low pass LC, RC, or LRC lumped filter
- RF blocking on DC feeds
- Impedance matching
- SiC or GaN high frequency / high power applications

WV (DC) VALUES AND TOLERANCES			
CAPACITOR MODEL	A	B	UNIT
Case Size	1204	2404	
Capacitance Values	5 to 50	10 to 100	pF
Tolerance	5	5	%
DC Working Voltage	100	100	V

STANDARD ELECTRICAL SPECIFICATIONS		
PARAMETER	VALUE	UNIT
Capacitance Range	5 to 100	pF
Absolute Tolerance, 1 kHz ⁽¹⁾	Down to ± 5	%
Absolute TCC, -55 ° to 125 °C	± 50	ppm/°C
Operating Temperature Range	-55 to +150	°C
Operating Voltage	100 max.	V
Dissipation Factor, 1 MHz	0.01 max.	
Absolute Value Stability, 1 kHz, 1000 h, 70 °C, 100 V _{DC}	± 0.25	%
Short Time Overload, 2 x Rated Voltage, 25 °C, 5 s	± 0.25	%
Thermal Shock, MIL-STD-202, Method 107 F	± 0.25	%
Moisture Resistance, MIL-STD-202, Method 106*	± 0.25	%
High Temperature Exposure, 100 h, 150 °C	± 0.25	%
Low Temperature Operation, -65 °C, 45 min, 100 V _{DC}	± 0.25	%

Note

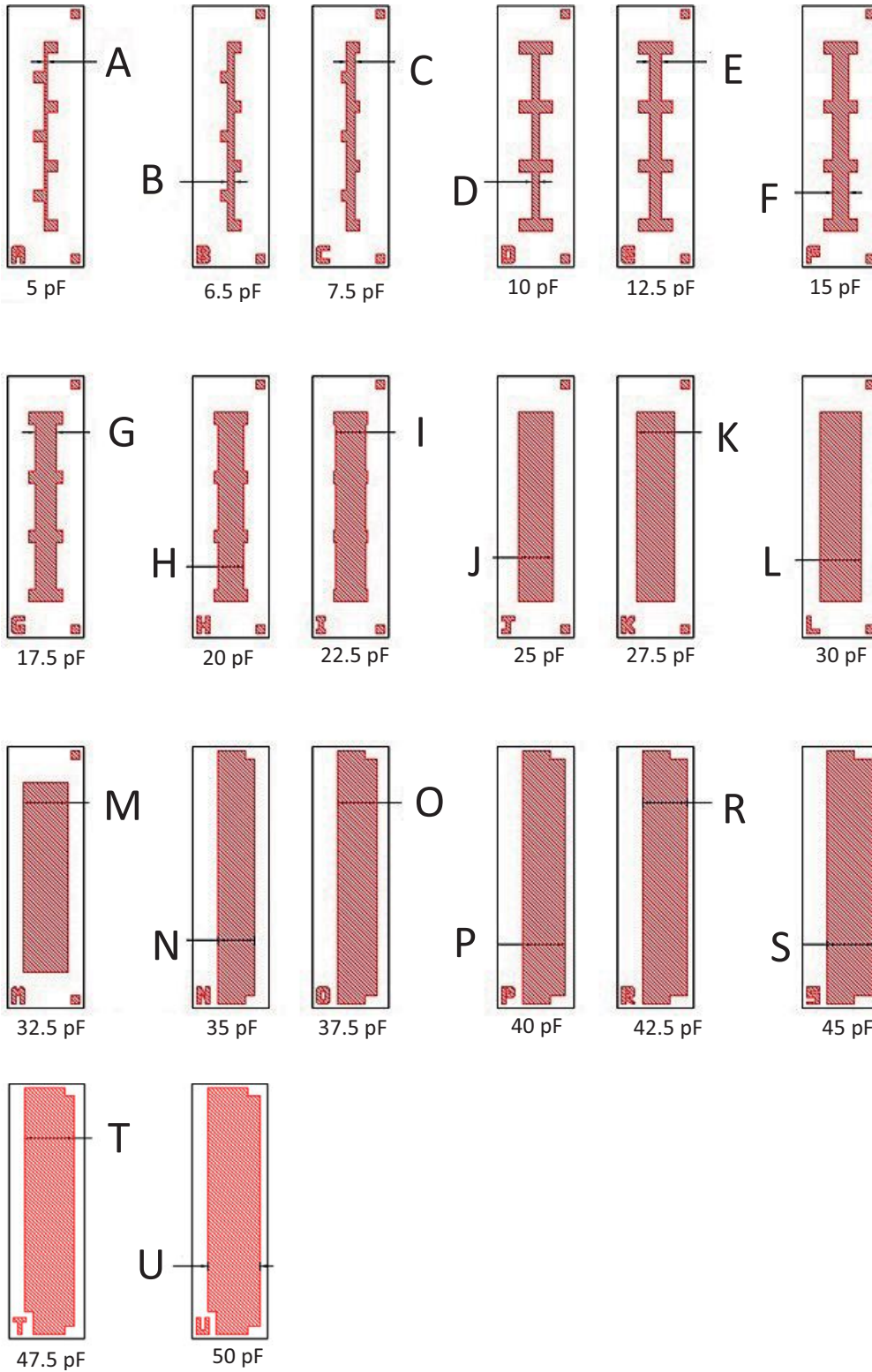
⁽¹⁾ See table "Case Size Value and Tolerance".



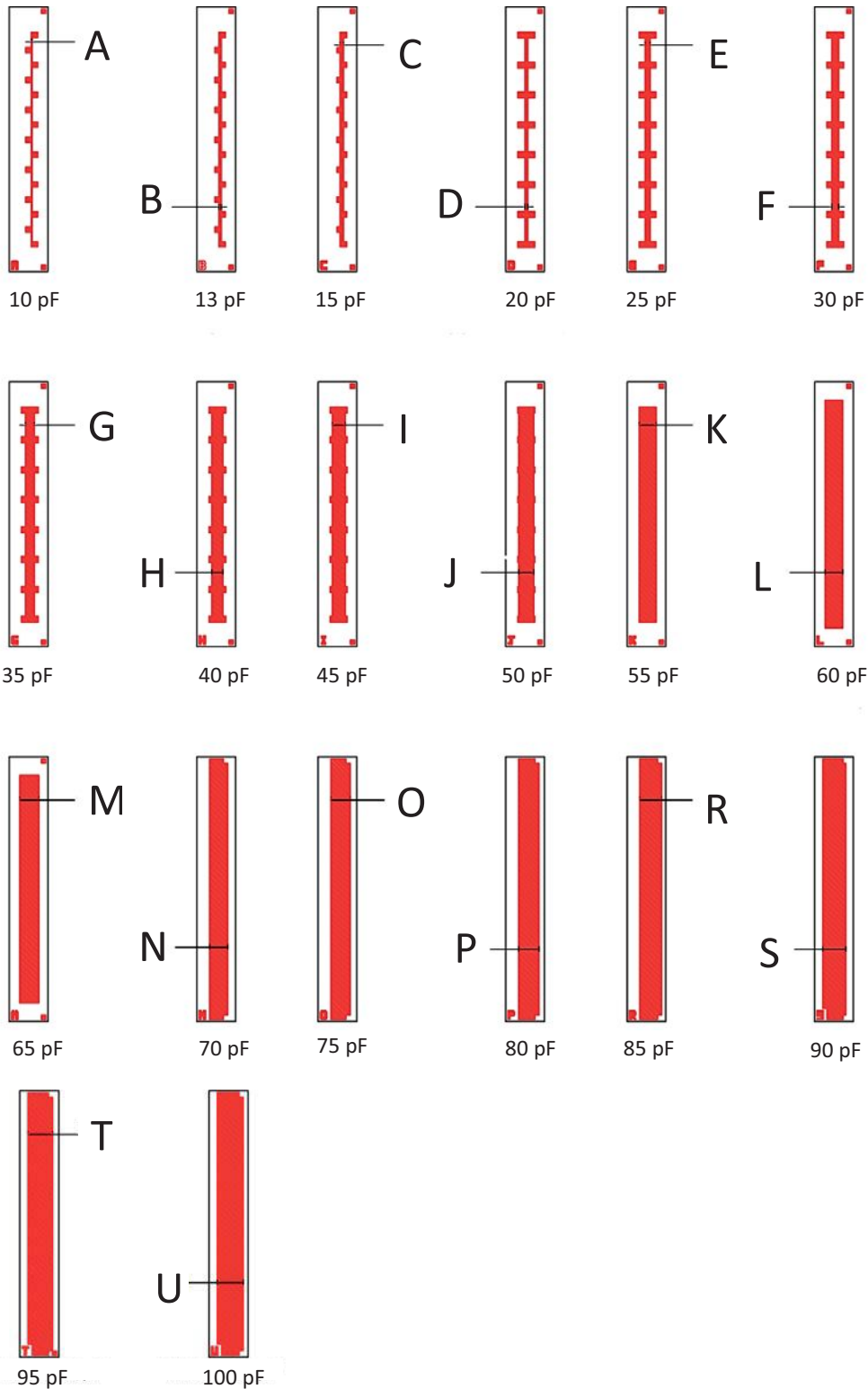
MECHANICAL SPECIFICATIONS	
PARAMETER	VALUE
Chip Substrate Material	Silicon
Dielectric	Silicon dioxide
Top Termination	Au 1 µm min.
Case Size	See table "Case Size Value and Tolerance"
Passivation	None
Number of Pads	1
Back Termination (Epoxy only)	TiW/Au

CASE SIZE VALUE AND TOLERANCE				
NOMINAL VALUE (pF)	CASE TYPE A	CASE TYPE B	BEST TOLERANCE (± %)	MAX. OPERATING VOLTAGE (V)
5	+	-	10	100
7.5	+	-	7	100
10	+	+	5	100
12.5	+	+	5	100
15	+	+	5	100
17.5	+	-	5	100
20	+	+	5	100
22.5	+	-	5	100
25	+	+	5	100
27.5	+	-	5	100
30	+	+	5	100
32.5	+	-	5	100
35	+	+	5	100
37.5	+	-	5	100
40	+	+	5	100
42.5	+	-	5	100
45	+	+	5	100
47.5	+	-	5	100
50	+	+	5	100
55	-	+	5	100
60	-	+	5	100
65	-	+	5	100
70	-	+	5	100
75	-	+	5	100
80	-	+	5	100
85	-	+	5	100
90	-	+	5	100
95	-	+	5	100
100	-	+	5	100

CASE SIZE A 0.12" x 0.035"



CASE SIZE B 0.24" x 0.035"





GLOBAL PART NUMBER INFORMATION

Global Part Number: **BRCPA1000BKGCS**T

Global Part Number Description: **BRCP** 3 mm 10 pF 10 % Au **C** **ST**

B **R** **C** **P** **A** **1** **0** **0** **0** **B** **K** **G** **C** **S** **T**

MODEL	SIZE	CAPACITANCE (pF)	CAPACITANCE MULTIPLIER CODE	TOLERANCE CODE	TERMINATION	VISUAL CLASS	PACKAGING CODE
BRCP Bar Capacitor	A = 3 mm x 1 mm B = 6 mm x 1 mm	First 4 digits are significant figures of capacitance	C = 0.001 B = 0.01 A = 0.1	J = 5 % K = 10 % M = 20 % L = 25 %	G = Au A = Al	C = Commercial E = Electrical test only H = Class H K = Class K	WS = Waffle pack 100 min., 1 mult FW = Full wafer HW = Half wafer ST = Diced on tape



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