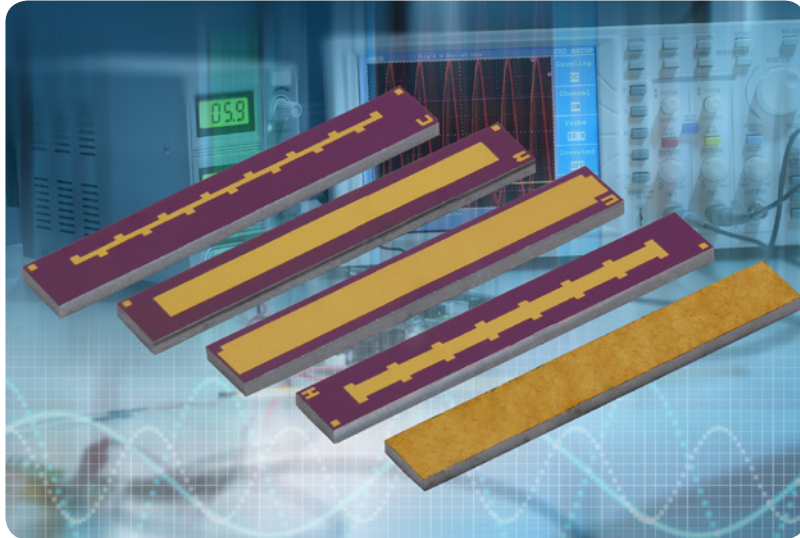


## Thin Film Bar MOS Capacitors



### KEY BENEFITS

- Absolute tolerance down to  $\pm 5\%$
- Low TCC down to  $\pm 50$  ppm / $^{\circ}\text{C}$
- Robust MOS construction
- Multiple wire bonds can be accommodated on both case sizes, 7 for the lowest values of Case A and 15 for the lowest values of Case B
- Excellent load life stability
- Offered in two case sizes, 120 x 35 mils and 240 x 35 mils

### APPLICATIONS

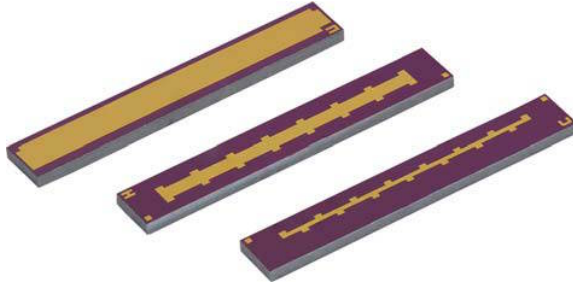
Hybrid assemblies, SiC or GaN high-frequency/high power applications

### RESOURCES

- Datasheet: BRCP - [www.vishay.com/doc?61106](http://www.vishay.com/doc?61106)
- For technical questions contact [efi@vishay.com](mailto:efi@vishay.com)



## 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 <sup>(1)</sup>	Down to $\pm 5$	%
Absolute TCC, -55 ° to 125 °C	$\pm 50$	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 <sub>DC</sub>	$\pm 0.25$	%
Short Time Overload, 2 x Rated Voltage, 25 °C, 5 s	$\pm 0.25$	%
Thermal Shock, MIL-STD-202, Method 107 F	$\pm 0.25$	%
Moisture Resistance, MIL-STD-202, Method 106*	$\pm 0.25$	%
High Temperature Exposure, 100 h, 150 °C	$\pm 0.25$	%
Low Temperature Operation, -65 °C, 45 min, 100 V <sub>DC</sub>	$\pm 0.25$	%

### MECHANICAL SPECIFICATIONS

PARAMETER	VALUE
Chip Substrate Material	Silicon
Dielectric	Silicon dioxide
Top Termination	Au 1 $\mu$ m min.
Passivation	None
Number of Pads	1
Back Termination (Epoxy only)	TiW/Au

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