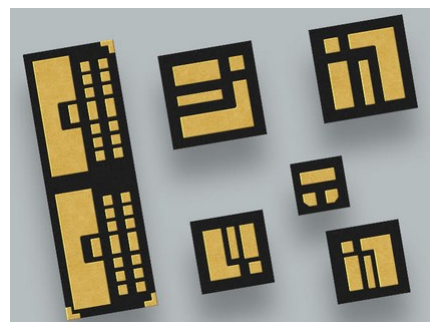


## Description

The SemiGen Binary Capacitor Series are designed for ease of use when trimming, tuning or facilitating breadboard applications. The devices feature our MNOS design using Nitride and Oxide to achieve a robust and reliable dielectric.

Custom designs as well as catalog off the shelf parts allow the user flexibility and varied capacitance values.



## Features

- Very High Q
- Low Temperature Coefficients
- Low Dissipation Factor
- Long-Term Stability
- Gold Contacts Front and Back
- Die as Thin as 3 mils for Limiting Inductance

## Applications

For use in applications that require DC protection, RF bypassing or fixed tuning of amplifiers, oscillators, switches, filters and multipliers.

## Absolute Maximum Ratings<sup>1,2</sup>

Parameter	Absolute Maximum
Mounting Temperature	+320°C for 10 seconds
Rated Voltage	100VDC
Operating Temperature	-55°C to +150°C
Storage Temperature	-65°C to +200°C
Moisture Sensitivity Rating	MSL 1

## Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

## Moisture Sensitivity

SemiGen capacitor chips are MSL 1.

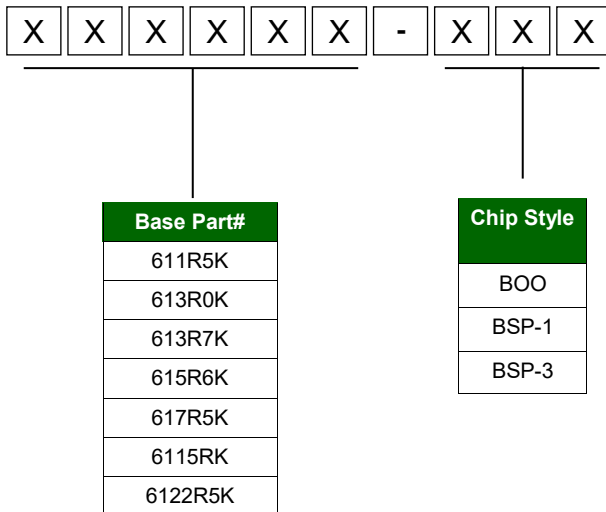
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. SemiGen does not recommend sustained operation near these survivability limits.

## Available Parts

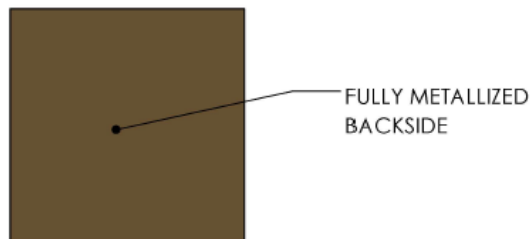
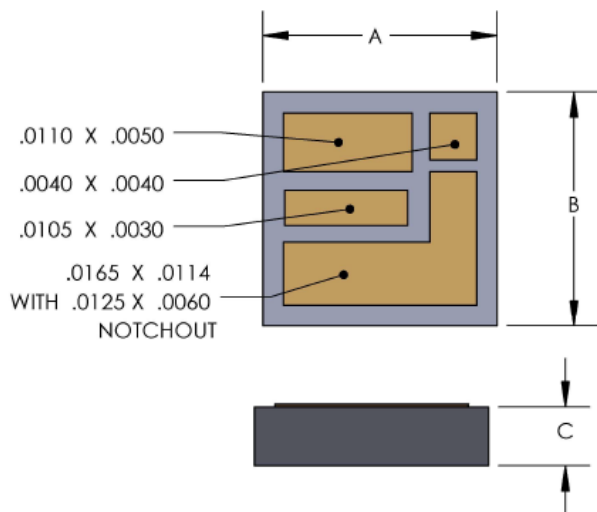
Part Number	Capacitance (pF) <sup>1</sup>					Chip Style		
	Pad 1	Pad 2	Pad 3	Pad 4	Total	BOO	BSP-1	BSP-3
611R5K-XXX	0.1	0.2	0.4	0.8	1.5	✓		✓
613R0K-XXX	0.2	0.4	0.8	1.6	3.0	✓	✓	✓
613R7K-XXX	0.25	0.5	1.0	2.0	3.75	✓	✓	✓
615R6K-XXX	0.4	0.8	1.5	3.0	5.6	✓	✓	✓
617R5K-XXX	0.5	1.0	2.0	4.0	7.5	✓	✓	
6115RK-XXX	1.0	2.0	4.0	8.0	15.0	✓	✓	
6122R5K-XXX	1.5	3.0	6.0	12.0	22.5	✓	✓	

1. Tolerance is ±10% for values shown

## Ordering Information

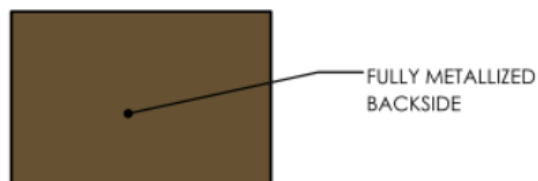
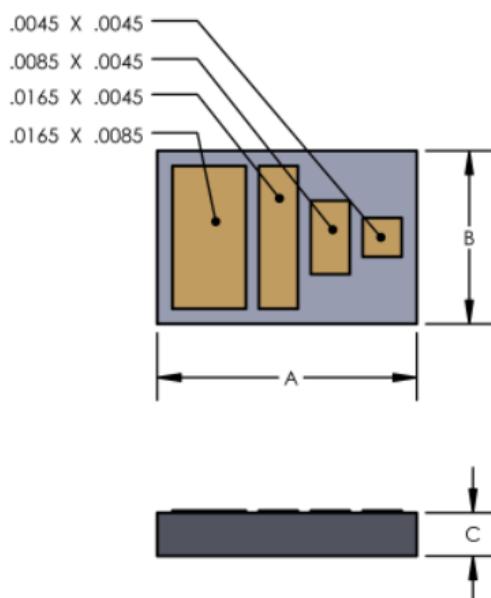


### Chip Style—BOO



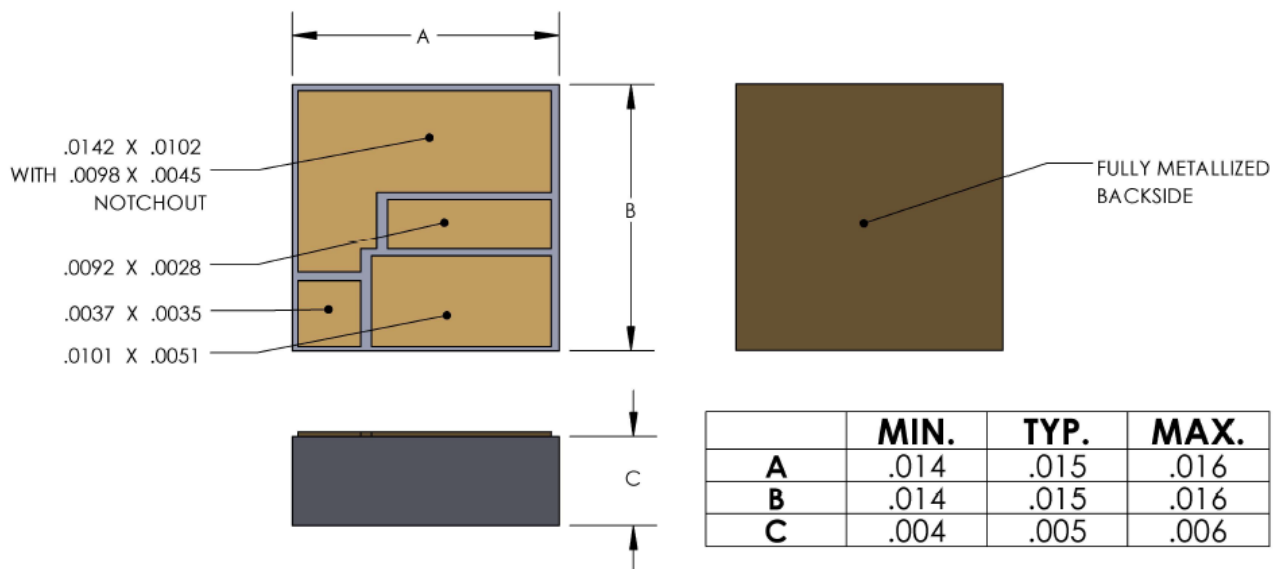
	MIN.	TYP.	MAX.
<b>A</b>	.019	.020	.021
<b>B</b>	.019	.020	.021
<b>C</b>	.004	.005	.006

### Chip Style—BSP-1



	MIN.	TYP.	MAX.
<b>A</b>	.029	.030	.031
<b>B</b>	.019	.020	.021
<b>C</b>	.004	.005	.006

### Chip Style—BSP-3



SemiGen All rights reserved.

Information in this document is provided in connection with Semi-General Inc ("SEMIGEN") products. These materials are provided by SEMIGEN as a service to its customers and may be used for informational purposes only. Except as provided in SEMIGEN's Terms and Conditions of Sale for such products or in any separate agreement related to this document, SEMIGEN assumes no liability whatsoever. SEMIGEN assumes no responsibility for errors or omissions in these materials. SEMIGEN may make changes to specifications and product descriptions at any time, without notice. SEMIGEN makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF SEMIGEN PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. SEMIGEN FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. SEMIGEN SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

SEMIGEN products are not intended for use in medical, lifesaving or life sustaining applications. SEMIGEN customers using or selling SEMIGEN products for use in such applications do so at their own risk and agree to fully indemnify SEMIGEN for any damages resulting from such improper use or sale.