

	DATASHEET	Part No.
	Amotech Broadband Capacitor	ABCUA16S02X104KGDG

CUSTOMER :


DATA SHEET

Product Name : Amotech Broadband Capacitor

Part No : ABCUA16S02X104KGDG

Revision Date : 2020/12/08

Customer Code :

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	Amotech Broadband Capacitor	ABCUA16S02X104KGDG

1. Parts description

1.1. Overview

The ABCU series is abbreviation of Amotech broadband Capacitor. We provide extremely low insertion loss and excellent return loss in 40GHz.

1.2. Features

- 0402 inch (1.0x0.5mm)
- Operating Frequency : 16kHz ~ 40GHz +
- Low insertion loss
- RoHS Compliant

1.3. Application

- Broadband Microwave / millimeter-wave
- Broadband Test Equipment
- Optoelectronics / High Speed Data for optical module

2. Model and Lot Number description

2.1. Model

ABC	U	A	16	S	02X	104	K	G	D	G
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

- (1) Series name
- (2) Design code
- (3) Internal code
- (4) Rated Voltage 16 : 16V
- (5) Material Code S : internal code
- (6) Chip size, 02X : 0402inch (1.0 x 0.5 x 0.5 mm)
- (7) Capacitance 104 : 100nF
- (8) Capacitance tolerance K : ± 10%
- (9) Plating G : Au plating over Nickel barrier
- (10) Packaging specification : Paper Taping (ø180mm Reel)
- (11) Application G : General

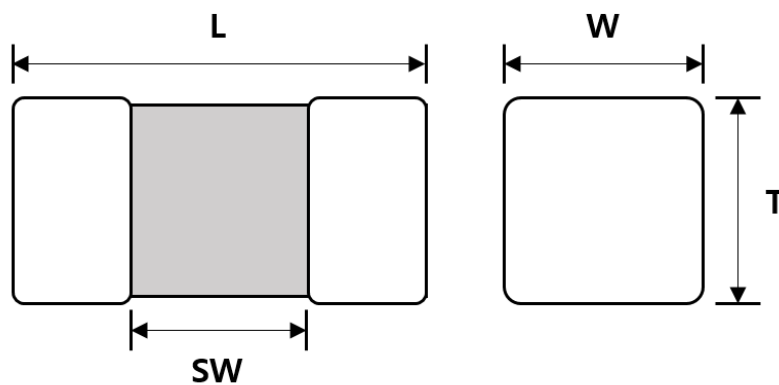
3. Specifications

3.1 Electrical characteristics

Part number	ABCUA16S02X104KGDG
DC Rated voltage	16 V dc
Capacitance & Tolerance	100nF ±10%
Dielectric Withstanding Voltage	250% of rated voltage for 5sec.
Insulation Resistance	10 ⁹ Ω min. @+25°C, DC rated voltage
Temperature Coefficient of Capacitance (TCC)	15 % @ -55 ~ +125°C
Typical operating frequency range	16 kHz (-3dB point) to 40 GHz +

3.2 Mechanical dimension

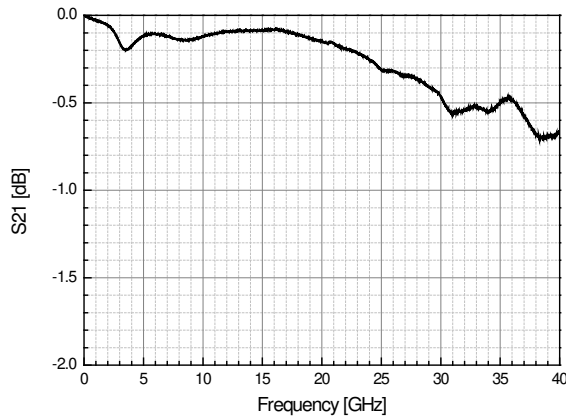
■ Mechanical dimension



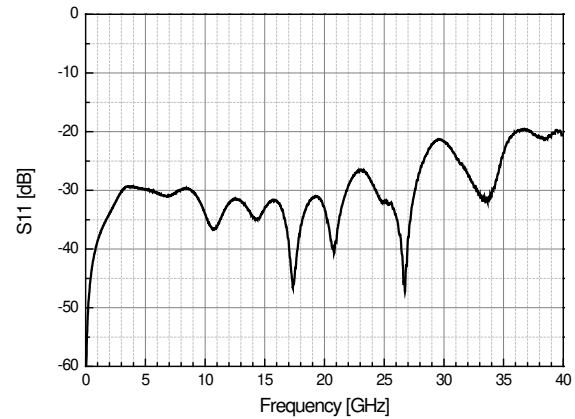
	L	W	T	SW
Size (mm)	1.0 ±0.1	0.5 ±0.1	0.5 ±0.1	0.25 ±0.1

3.3. Typical performance data

■ **Insertion Loss (S21)**

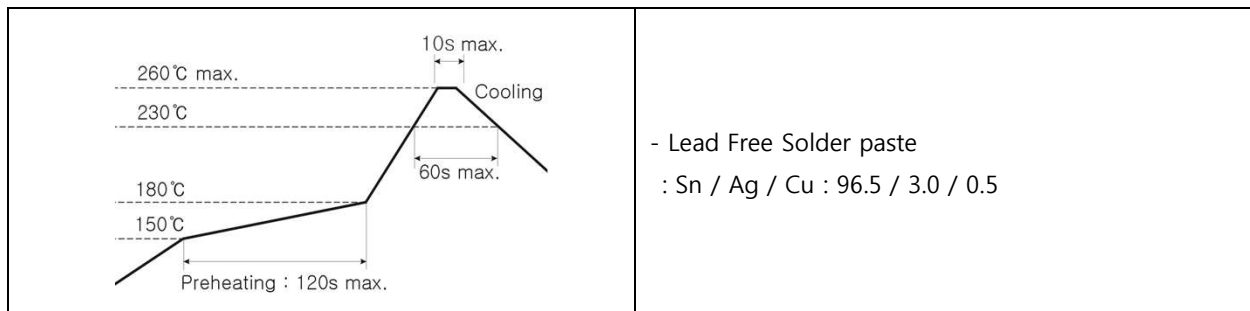


■ **Return Loss (S11)**



* EV board (ABC 02X E01): Rogers 4003C, thickness : 0.2 mm

4. Soldering condition (Reflow soldering)



Follow the recommended soldering conditions to avoid degradation of performance .

- This product is designed for reflow soldering only. Do not use flow soldering.
- Use non-activated flux. (Max. Cl content less than 0.2%)
- Reflow cycle times should be done less than 3 times.

5. Caution

- 1) Storage environment: 5~40°C temperature, 20~70% humidity (MSL Level 1)
- 2) Do not use in high temperature/high humidity and a corrosive atmosphere like sulfide, chloride gas, which could damage the solderability.
- 3) Do not expose to mechanical shock to avoid crack.