	DATASHEET	Part No.
	Amotech Broadband Capacitor	ABCUA10201X103PNDG

CUSTOMER :


DATA SHEET

Product Name : Amotech Broadband Capacitor

Part No : ABCUA10201X103PNDG

Revision Date : 2020/12/10

Customer Code :

	Address : 380, NAMDONGSEO-RO, NAMDONG-GU INCHEON, 21629 KOREA (AMOTECH. CO., LTD)
	Contact : TEL) 82-32-821-0363, FAX) 82-32-811-0283

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

- 0201 inch (0.6x0.3mm)
- Operating Frequency : 160kHz ~ 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	10	2	01X	103	P	N	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 10 : 10V
- (5) Material Code 2 : internal code
- (6) Chip size, 01X : 0201inch (0.6 x 0.3 x 0.3 mm)
- (7) Capacitance 103 : 10nF
- (8) Capacitance tolerance P : +100/-0%
- (9) Plating N : Sn plating over Nickel barrier
- (10) Packaging specification : Paper Taping (ø180mm Reel)
- (11) Application G : General

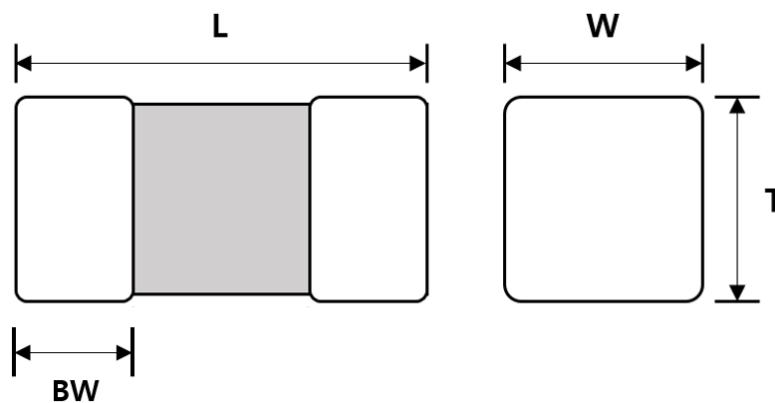
3. Specifications

3.1 Electrical characteristics

Part number	ABCUA10201X103PNDG
DC Rated voltage	10 V dc
Capacitance & Tolerance	10nF (+100/-0%)
Dielectric Withstanding Voltage	250% of rated voltage for 5sec.
Insulation Resistance	$10^{11}\Omega$ min. @+25°C, DC rated voltage
Temperature Coefficient of Capacitance (TCC)	22 % @ -55 ~ +125°C
Typical operating frequency range	160 kHz (-3dB point) to 40 GHz +

3.2 Mechanical dimension

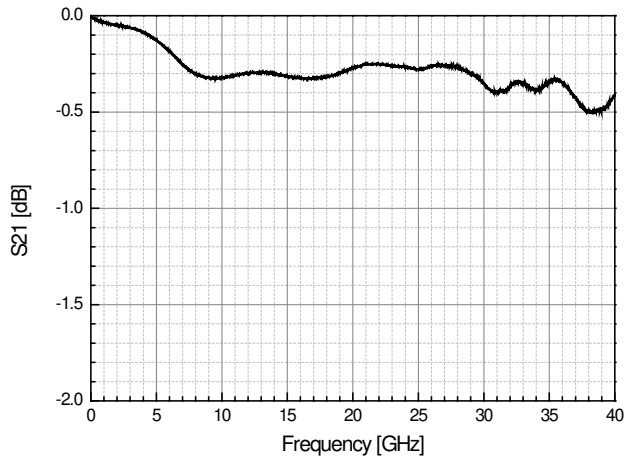
■ Mechanical dimension



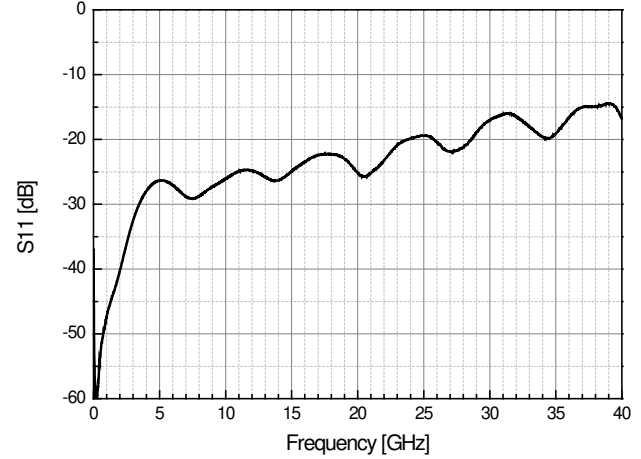
	L	W	T	BW
Size (mm)	0.60 ±0.03	0.30 ±0.03	0.30 ±0.03	0.15 ±0.05

3.3. Typical performance data

■ **Insertion Loss (S21)**

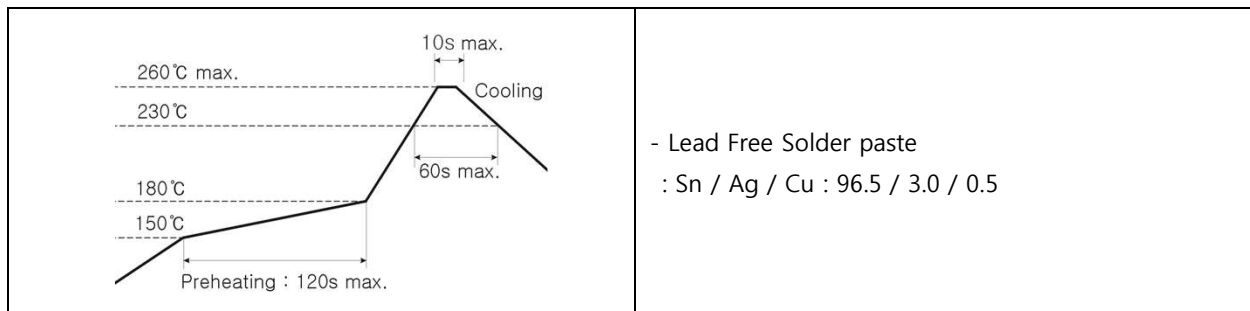


■ **Return Loss (S11)**



* EV board (ABC 01X E01): Rogers 4003C, thickness : 0.2 mm

4. Soldering condition (Reflow soldering)



- Lead Free Solder paste
: Sn / Ag / Cu : 96.5 / 3.0 / 0.5

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.