

# UBZ Series

Ultra-Broadband Capacitor



## DESCRIPTION

- EIA 0201 Case size
- Capacitance: 100nF
- Low insertion loss up to 40 GHz
- RoHS Compliant

## APPLICATIONS

- Optoelectronics / High-speed data
- Broadband test equipment & applications
- Broadband microwave / millimeter wave amplifiers and oscillators

## CIRCUIT APPLICATIONS

- DC Blocking, Coupling, Bypassing

## ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS

### Electrical specifications

Parameter	Value
Capacitance	100nF
Tolerances	K ( $\pm 10\%$ )
Working voltage ( $WV_{DC}$ )	10V
Temperature coefficient	X5R up to 85°C X6T up to 105°C
Insulation Resistance	$10^9 \Omega$ min.
Insertion Loss @ 10Ghz (typical)	<0.5 dB
Insertion Loss @ 28Ghz (typical)	<1 dB
DF	$\leq 15\%$
Dielectric Withstanding (test voltage applied for 5 seconds)	$2 WV_{DC}$

### Mechanical specification

Parameter	Value	Comment
Case size	Z	0201
<b>Termination type</b>		
	<b>Code</b>	
Standard (Tin-plated Nickel)	S	
<b>Packaging</b>		
	<b>Code</b>	<b>Quantity</b>
Parts per Reel	E	15 000

### Environmental specifications

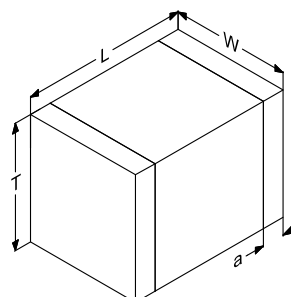
Parameter	Value
Life Test	1000 hours, +105°C at 1 $WV_{DC}$
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

## HOW TO ORDER

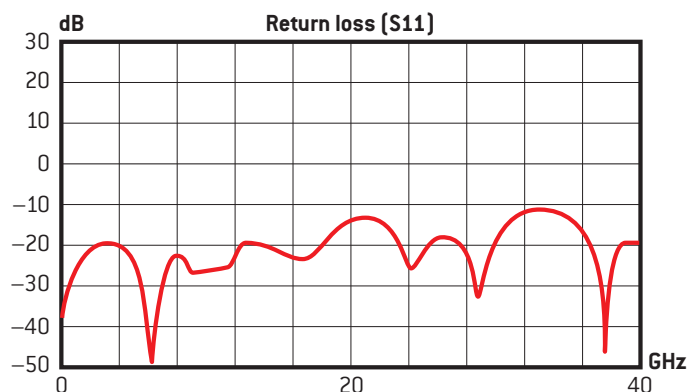
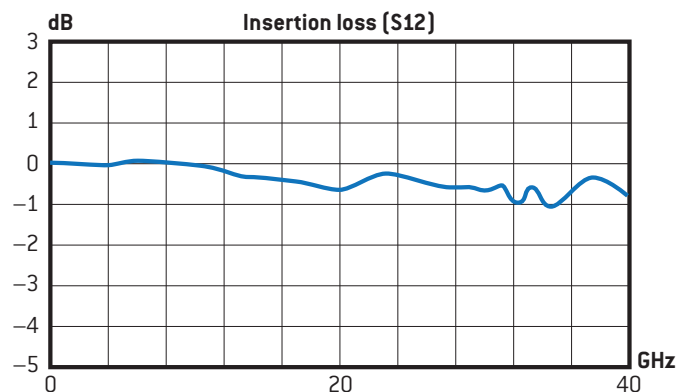
100	UB	Z	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
100 = 10V	X5R	Z = 0201	104 = 100nF	K = $\pm 10\%$	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size		0201
Dimensions inches (mm)	L	0.024 ± 0.002 (0.6 ± 0.04)
	W	0.012 ± 0.002 (0.3 ± 0.04)
	T	0.014 max. (0.35 max.)
	a	0.006 ± 0.002 (0.15 ± 0.06)



PERFORMANCE CHARACTERISTICS



Typical responses of S11 and S21 Measurements on a PTFE 50 Ohm substrate