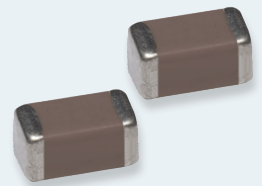
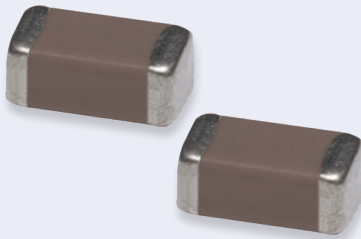
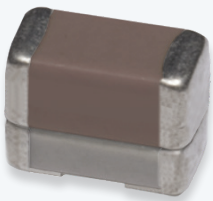


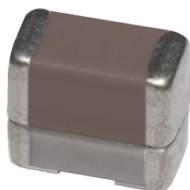
Broadband Series

XBL, UBL, UBZ Series



XBL Series

eXtra Broadband Capacitor



DESCRIPTION

- EIA 0402 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 (± 10%)
Working voltage (WV _{DC})	16V
Temperature coefficient	X7R
Insulation Resistance	10 ⁹ Ω min.
Insertion Loss @ 10Ghz (typical)	<0.3 dB
Insertion Loss @ 20Ghz (typical)	<0.5 dB
Insertion Loss @ 40Ghz (typical)	<1.2 dB
DF	≤5%
Dielectric Withstanding (test voltage applied for 5 seconds)	1.5 WV _{DC}

Mechanical specification		
Parameter	Value	Comment
Case size	L	0402
Termination type		
Standard (Tin-plated Nickel)	S	
Packaging		
Tape and reel	E	

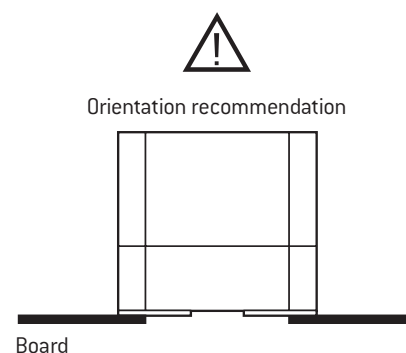
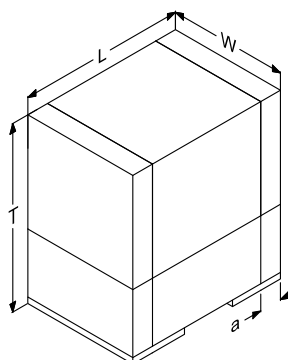
Environmental specifications	
Parameter	Value
Life Test	1000 hours, +125°C at 1.5 WV _{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

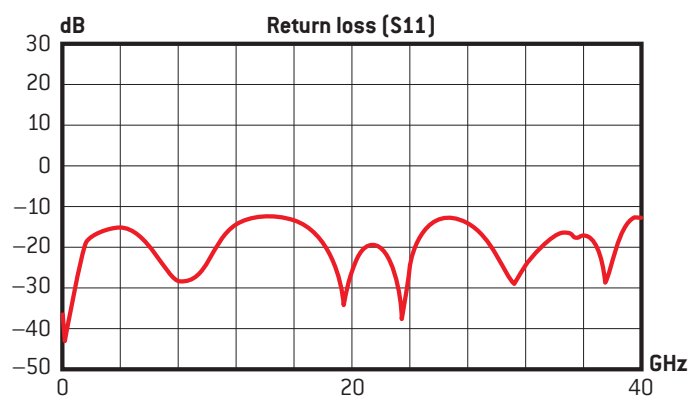
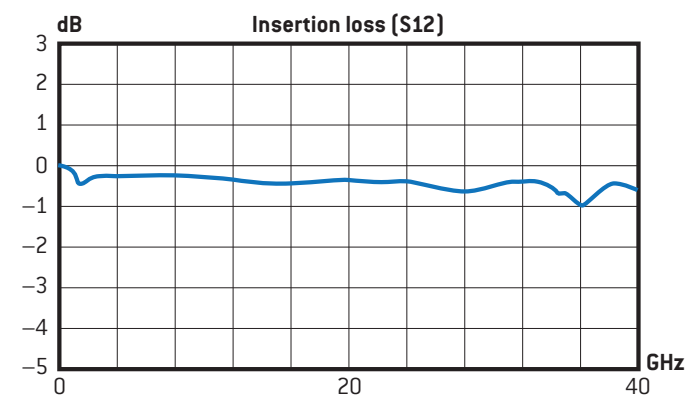
160	XB	L	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
160 = 16V	X7R	L = 0402	104 = 100nF	K = ± 10%	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size	0402
L	0.039 ± 0.008 [1 $\pm$ 0.2]
W	0.236 ± 0.004 [0.6 $\pm$ 0.1]
T	0.039 max. / 0.033 typical [1 max. / 0.85 typical]
a	0.010 ± 0.006 [0.25 $\pm$ 0.15]



PERFORMANCE CHARACTERISTICS



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

UBL Series

Ultra-Broadband Capacitor



DESCRIPTION

- EIA 0402 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 (± 10%)	
Working voltage (WV _{DC})	16V	
Temperature coefficient	X7R	
Insulation Resistance	10 ⁹ Ω min.	
Insertion Loss @ 10Ghz (typical)	<0.5 dB	
Insertion Loss @ 20Ghz (typical)	<1.2 dB	
Insertion Loss @ 40Ghz (typical)	<1.5 dB	
DF	≤5%	
Dielectric Withstanding (test voltage applied for 5 seconds)	2 WV _{DC}	

Mechanical specification		
Parameter	Value	Comment
Case size	L	0402
Termination type	Code	
Standard (Tin-plated Nickel)	S	
Packaging	Code	Quantity
Parts per Reel	E	10 000

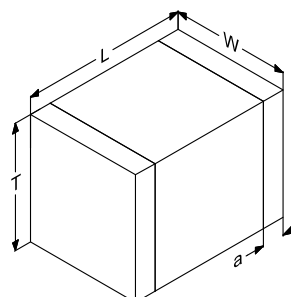
Environmental specifications	
Parameter	Value
Life Test	1000 hours, +125°C at 1.5 WV _{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

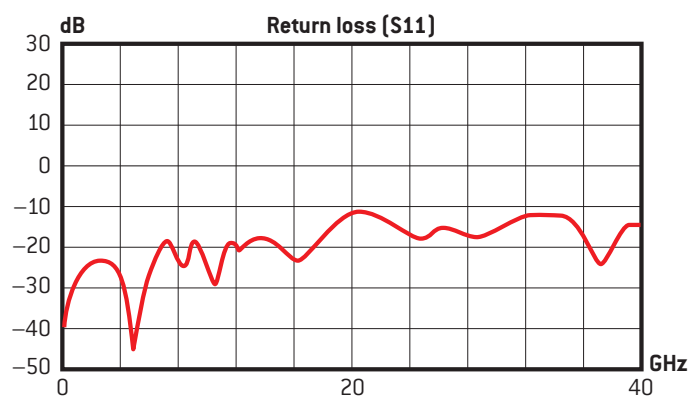
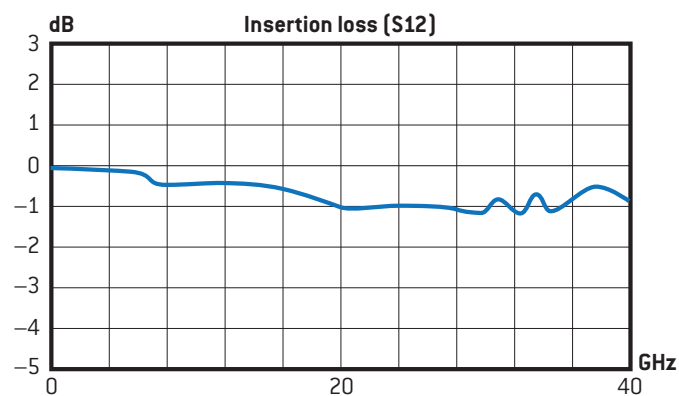
160	UB	L	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
160 = 16V	X7R	L = 0402	104 = 100nF	K = ± 10%	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size	0402
L	0.039 ± 0.004 (1 ± 0.1)
W	0.197 ± 0.004 (0.5 ± 0.1)
T	0.236 max. (0.6 max.)
a	0.010 ± 0.004 (0.25 ± 0.1)



PERFORMANCE CHARACTERISTICS



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

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
Termination type		
		Code
Standard (Tin-plated Nickel)	S	
Packaging		
		Code
Parts per Reel	E	15 000

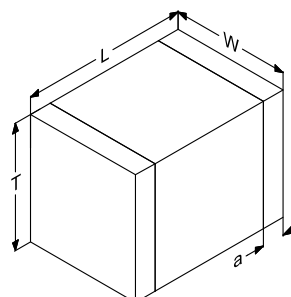
Environmental specifications	
Parameter	Value
Life Test	1000 hours, +105°C at 1 WV_{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

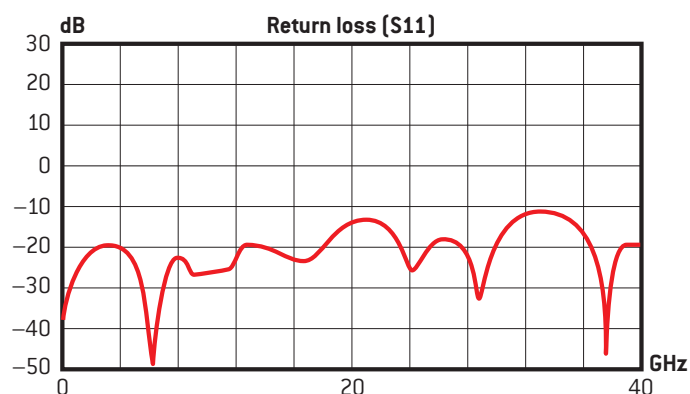
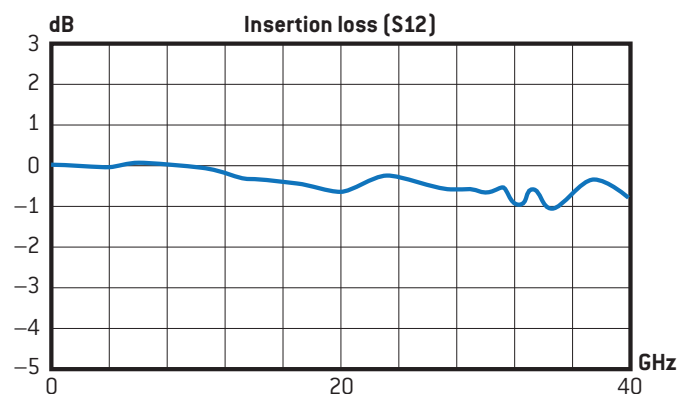
100	UB	Z	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
100 = 10V	X5R	Z = 0201	104 = 100nF	K = $\pm 10\%$	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size	0201
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

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