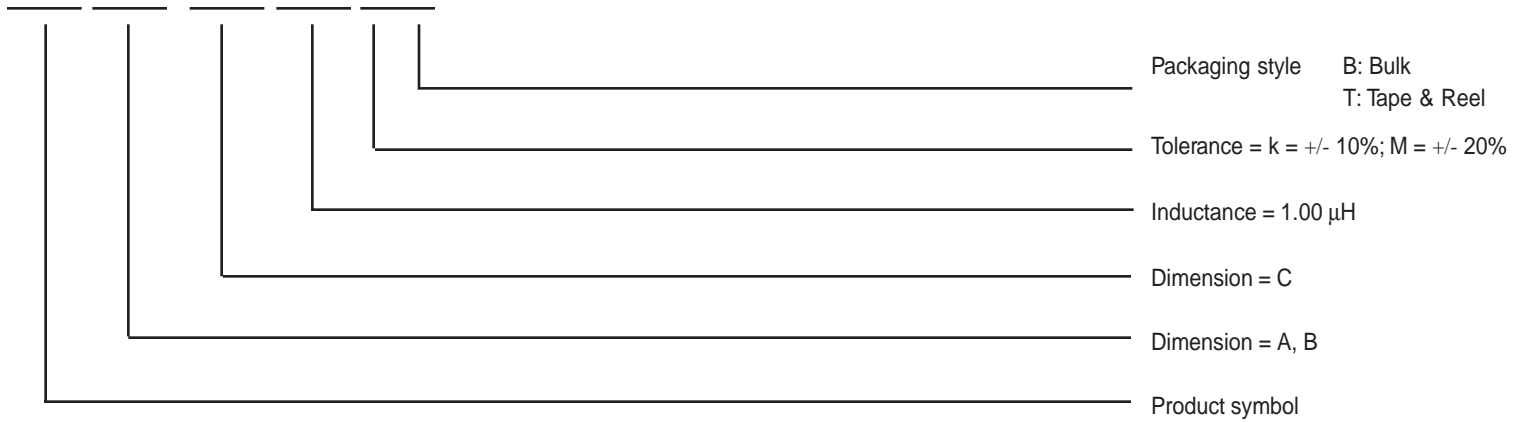
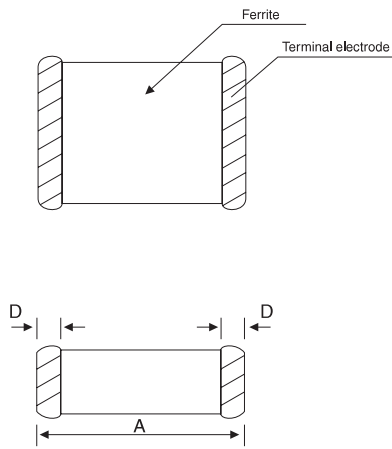


■ PRODUCT IDENTIFICATION

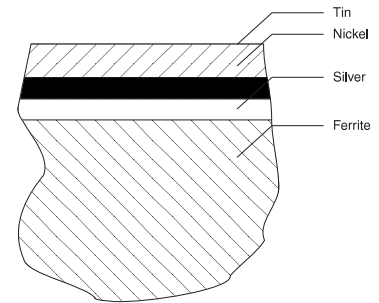
XFEI 3216 □ □ 1R0 □ □



■ SHAPES AND DIMENSIONS



■ TERMINAL ELECTRODE CONSTRUCTION



Dimension in mm [inches]

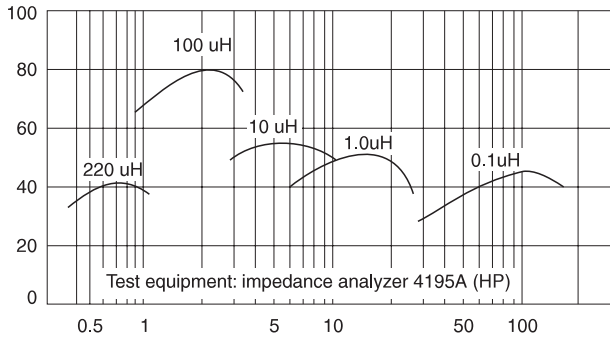
PART NO.	A	B	C	D
XFEI-3216	3.2 +/- 0.2 [.126 +/- .008]	1.6 +/- 0.2 [.063 +/- .008]	0.6 +/- 0.2 [.024 +/- .008]	0.5 +/- 0.3 [.020 +/- .012]
			1.1 +/- 0.3 [.043 +/- .012]	
XFEI-2012	2.0 + 0.3 - 0.1 [.079 + .012 - .004]	1.25 +/- 0.2 [.049 +/- .008]	0.85 +/- 0.2 [.033 +/- .008]	0.5 +/- 0.3 [.020 +/- .012]
			1.25 +/- 0.2	
			[.049 +/- .008]	

ELECTRICAL CHARACTERISTIC
XFEI 3216 SERIES

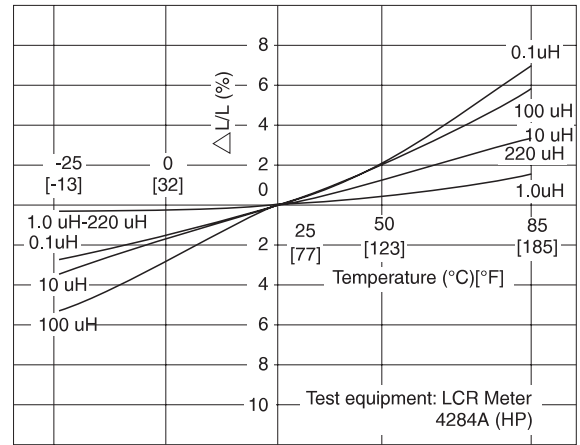
Part No.	Product's thickness (mm) [inches]	Inductance (μ H)	Q min.	L, Q test frequency (MHz)	Self-Resonant Frequency (MHz) min.	DC resistance RDC (Ω) max.	Rated Current (mA) max.
XFEI-3216 <input type="checkbox"/> 47N <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.047 +/- 20%	20	50	320	0.15	300
XFEI-3216 <input type="checkbox"/> 68N <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.068 +/- 20%	20	50	280	0.25	300
XFEI-3216 <input type="checkbox"/> R10 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.10 +/- 20% or +/- 10%	20	25	235	0.25	250
XFEI-3216 <input type="checkbox"/> R12 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.12 +/- 20% or +/- 10%	20	25	220	0.30	250
XFEI-3216 <input type="checkbox"/> R15 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.15 +/- 20% or +/- 10%	20	25	200	0.30	250
XFEI-3216 <input type="checkbox"/> R18 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.18 +/- 20% or +/- 10%	20	25	185	0.40	250
XFEI-3216 <input type="checkbox"/> R22 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.22 +/- 20% or +/- 10%	20	25	170	0.40	250
XFEI-3216 <input type="checkbox"/> R27 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.27 +/- 20% or +/- 10%	20	25	150	0.50	250
XFEI-3216 <input type="checkbox"/> R33 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	0.33 +/- 20% or +/- 10%	20	25	145	0.60	250
XFEI-3216 <input type="checkbox"/> R39 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	0.39 +/- 20% or +/- 10%	25	25	135	0.50	200
XFEI-3216 <input type="checkbox"/> R47 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	0.47 +/- 20% or +/- 10%	25	25	125	0.60	200
XFEI-3216 <input type="checkbox"/> R56 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	0.56 +/- 20% or +/- 10%	25	25	115	0.70	150
XFEI-3216 <input type="checkbox"/> R68 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	0.68 +/- 20% or +/- 10%	25	25	105	0.80	150
XFEI-3216 <input type="checkbox"/> R82 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	0.82 +/- 20% or +/- 10%	25	25	100	0.90	150
XFEI-3216 <input type="checkbox"/> 1R0 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	1.0 +/- 20% or +/- 10%	45	10	75	0.40	100
XFEI-3216 <input type="checkbox"/> 1R2 <input type="checkbox"/>	0.6 +/- 0.2 [.024 +/- .008]	1.2 +/- 20% or +/- 10%	45	10	65	0.50	100
XFEI-3216 <input type="checkbox"/> 1R5 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	1.5 +/- 20% or +/- 10%	45	10	60	0.50	50
XFEI-3216 <input type="checkbox"/> 1R8 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	1.8 +/- 20% or +/- 10%	45	10	55	0.50	50
XFEI-3216 <input type="checkbox"/> 2R2 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	2.2 +/- 20% or +/- 10%	45	10	50	0.60	50
XFEI-3216 <input type="checkbox"/> 2R7 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	2.7 +/- 20% or +/- 10%	45	10	45	0.60	50
XFEI-3216 <input type="checkbox"/> 3R3 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	3.3 +/- 20% or +/- 10%	45	10	41	0.70	50
XFEI-3216 <input type="checkbox"/> 3R9 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	3.9 +/- 20% or +/- 10%	45	10	38	0.80	50
XFEI-3216 <input type="checkbox"/> 4R7 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	4.7 +/- 20% or +/- 10%	45	10	35	0.90	50
XFEI-3216 <input type="checkbox"/> 5R6 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	5.6 +/- 20% or +/- 10%	50	4	32	0.70	25
XFEI-3216 <input type="checkbox"/> 6R8 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	6.8 +/- 20% or +/- 10%	50	4	29	0.80	25
XFEI-3216 <input type="checkbox"/> 8R2 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	8.2 +/- 20% or +/- 10%	50	4	26	0.90	25
XFEI-3216 <input type="checkbox"/> 100 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	10.0 +/- 20% or +/- 10%	50	2	24	1.00	25
XFEI-3216 <input type="checkbox"/> 120 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	12.0 +/- 20% or +/- 10%	50	2	22	1.05	15
XFEI-3216 <input type="checkbox"/> 150 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	15.0 +/- 20% or +/- 10%	35	1	19	0.70	5
XFEI-3216 <input type="checkbox"/> 180 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	18.0 +/- 20% or +/- 10%	35	1	18	0.70	5
XFEI-3216 <input type="checkbox"/> 220 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	22.0 +/- 20% or +/- 10%	35	1	16	0.90	5
XFEI-3216 <input type="checkbox"/> 270 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	27.0 +/- 20% or +/- 10%	35	1	14	0.90	5
XFEI-3216 <input type="checkbox"/> 330 <input type="checkbox"/>	1.1 +/- 0.3 [.043 +/- .012]	33.0 +/- 20% or +/- 10%	35	0.4	13	1.05	5

TYPICAL ELECTRICAL CHARACTERISTIC XFEI 3216 SERIES

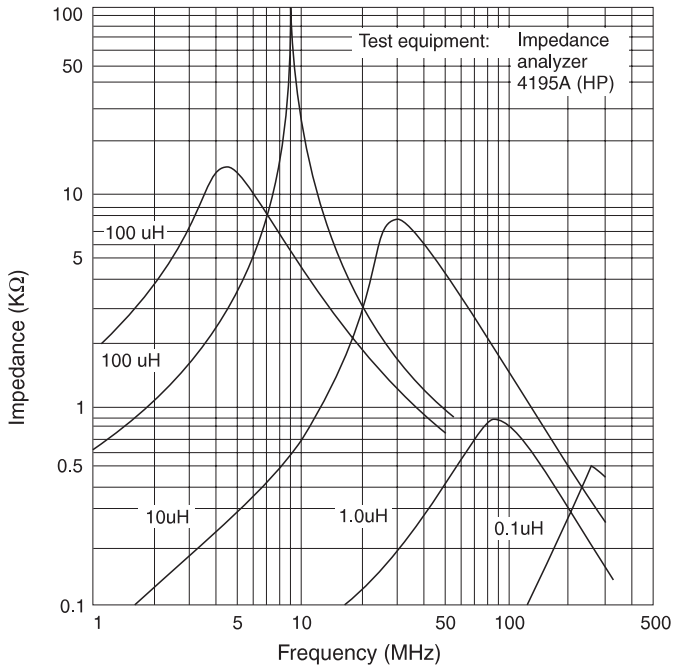
Q vs. Frequency characteristics



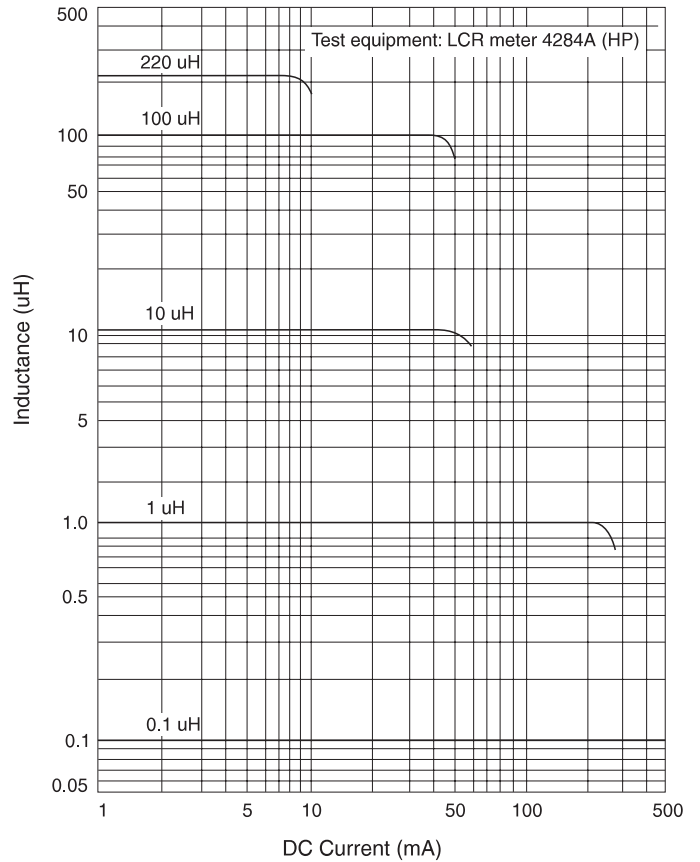
Inductance vs. temperature characteristics




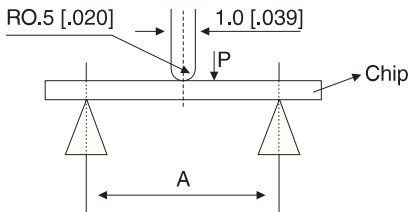
Impedance vs. frequency characteristics



Inductance vs. DC superposition characteristics



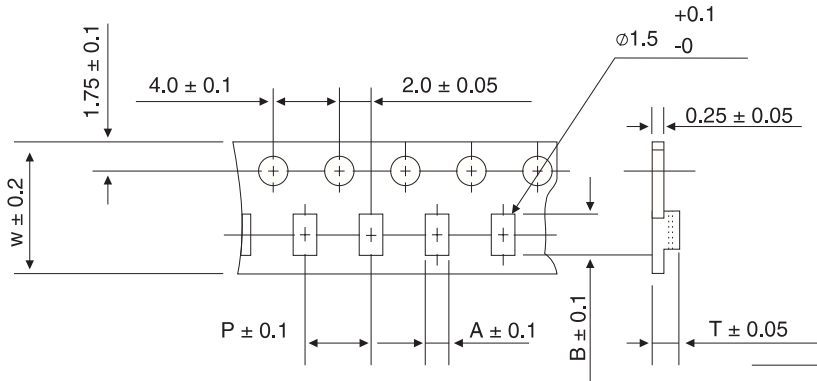
RELIABILITY AND TEST CONDITIONS

Item	Test conditions										
Operating temperature range	- 25 to + 85°C [- 13 to + 185°F]										
Storage temperature range	- 40 to + 85°C [- 40 to + 185°F] 0 to 60°C [32 to 140°F] (in tape and reel packaging)										
Soldering heat resistance	The chip should not crack. More than 75% of the terminal electrode should be covered with solder.	Preheat: 120 to 150°C [248 to 320°F] for 60 seconds Solder: H63A (eutectic solder) Solder temperature: 300+/- 5°C [572 +/- 9°F] Flux: Rosin Dip time: 10 +/- 0.5 seconds									
Solderability	More than 90% of the terminal electrode should be covered with new solder.	Preheat: 120 to 150°C [248 to 302°F] for 60 seconds Solder: H63A (eutectic solder) Solder temperature: 230+/- 5°C [446 +/- 9°F] Flux: Rosin Dip time: 3 +/- 1 seconds									
Terminal strength	The terminal electrode should not break off nor the ferrite damaged.	 <table border="1" data-bbox="971 919 1575 1024"> <thead> <tr> <th>Type</th> <th>W(N) [kgf]</th> <th>Time (sec.)</th> </tr> </thead> <tbody> <tr> <td>XFEI 2012</td> <td>5.9 [0.6]</td> <td></td> </tr> <tr> <td>XFEI 3216</td> <td>9.8 [1.0]</td> <td>30 +/- 5S</td> </tr> </tbody> </table>	Type	W(N) [kgf]	Time (sec.)	XFEI 2012	5.9 [0.6]		XFEI 3216	9.8 [1.0]	30 +/- 5S
Type	W(N) [kgf]	Time (sec.)									
XFEI 2012	5.9 [0.6]										
XFEI 3216	9.8 [1.0]	30 +/- 5S									
Bending strength	The ferrite should not be damaged by forces applied on the right.	 <table border="1" data-bbox="971 1339 1575 1444"> <thead> <tr> <th>Type</th> <th>A(mm) [inches]</th> <th>P (N) (Kgf)</th> </tr> </thead> <tbody> <tr> <td>XFEI 201209</td> <td>1.4 [.055]</td> <td>9.8 [1.0]</td> </tr> <tr> <td>XFEI 321611</td> <td>2.0 [.079]</td> <td>19.6 [2.0]</td> </tr> </tbody> </table>	Type	A(mm) [inches]	P (N) (Kgf)	XFEI 201209	1.4 [.055]	9.8 [1.0]	XFEI 321611	2.0 [.079]	19.6 [2.0]
Type	A(mm) [inches]	P (N) (Kgf)									
XFEI 201209	1.4 [.055]	9.8 [1.0]									
XFEI 321611	2.0 [.079]	19.6 [2.0]									
Thermal shock (Temperature cycle)	No mechanical damage. Inductance should be within +/- 5% of the initial value and Q (shall be) within +/- 30% of the initial value.	Temperature: -25°C [-13°F], +85°C [+185°F] for 30 minutes each, 50 cycles.									
High temperature resistance		Applied 200mA _{dc} and placed at 80°C [176°F] for 500 hours, then measured at room ambient temperature.									
Humidity resistance		Applied 200mA _{dc} and placed at 90%RH, 60°C [140°F] for 500 hours, then measured at room ambient temperature.									
Drop		Drop 10 times on a concrete floor from a height of 1 m [39.370 inches]									
Solvent resistance		Solvent: Trichloroethylene Washer: Ultrasonic washer (100W) Washing time: 3 minutes									

PACKAGING

Available in tape and reel, magazine and bulk.

TAPE DIMENSIONS

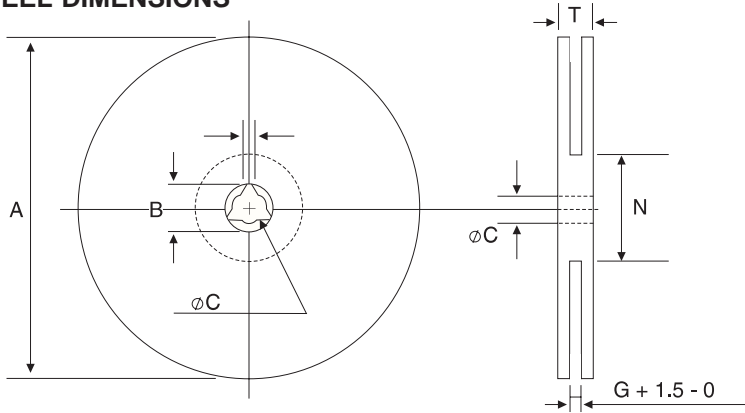


TAPE MATERIAL:
CARRIER TYPE: POLYSTYRENE

PACKAGING QUANTITY

TYPE	A	B	W	P	T	CHIPS / REEL
XFEI-321606	1.90	3.50	8	4	1.00	2000
XFEI-321611	1.90	3.50	8	4	1.50	2000
XFEI-201209	1.50	2.30	8	4	1.30	2000
XFEI-201212	1.50	2.30	8	4	1.60	2000

REEL DIMENSIONS



TYPE	XFEB- □ □ -321606	XFEB- □ □ -321611
A	178	
B	21.0 +/- 0.8	
C	13.0 +/- 0.2	
G	8.4	
N	55	
T	12.4	

