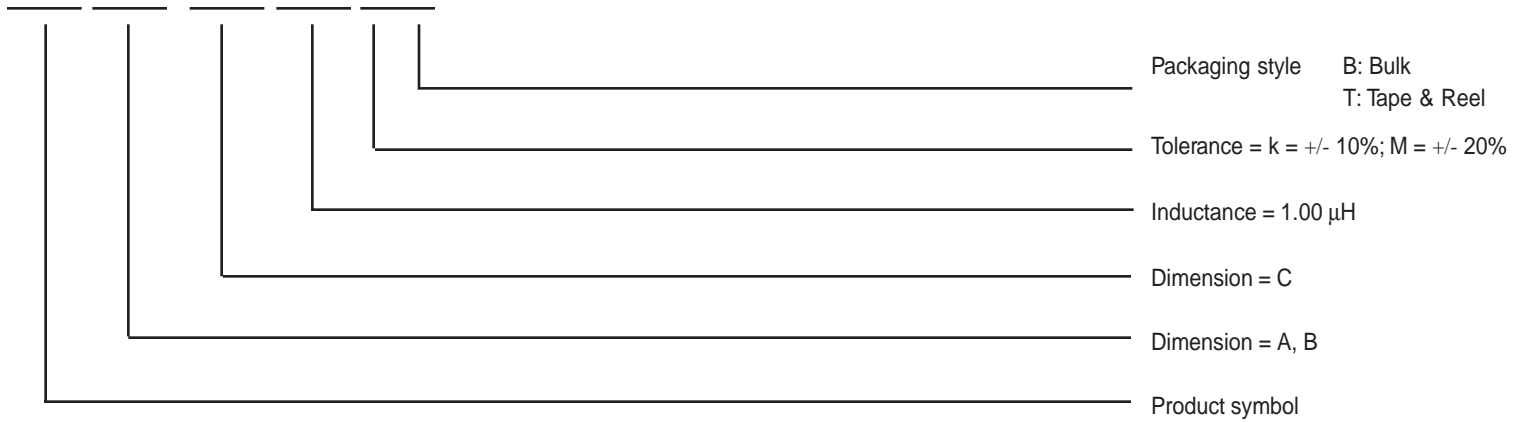
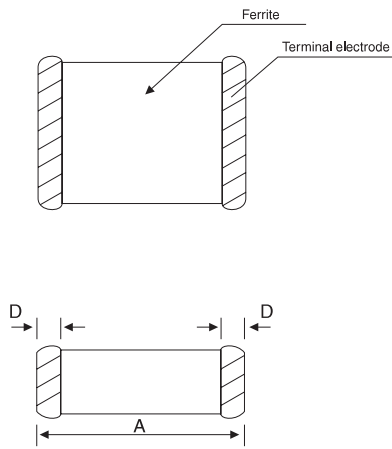


■ PRODUCT IDENTIFICATION

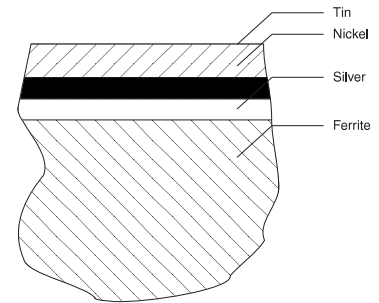
XFEI 3216 □ □ 1R0 □ □



■ 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]	

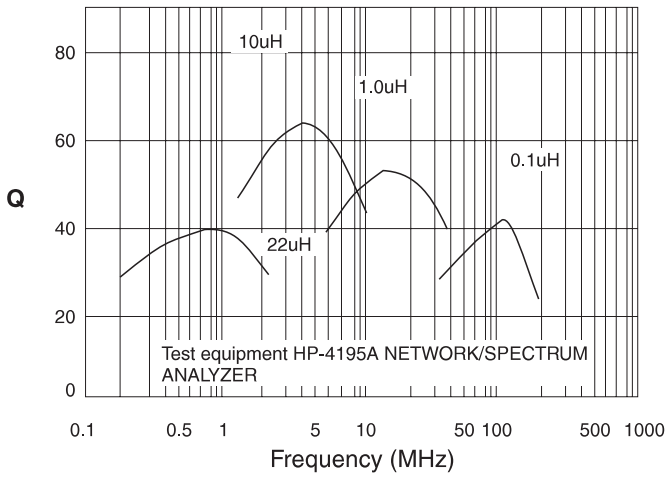
ELECTRICAL CHARACTERISTIC
XFEI 2012 SERIES

Part No.	Product's thickness (mm) [inches]	Inductance (μH)	Q		L, Q test frequency (MHz)	Self-resonant frequency (MHz)		DC resistance (Ω)		Rated current (mA)	Weight max. (mg)
			min.	nominal		min.	nominal	max.	nominal		
XFEI-2012 □ 47N*1 □	0.85 [.033]	0.047 +/- 20%	15	25	50	320	400	0.20	0.11	300	10
XFEI-2012 □ 68N □	0.85 [.033]	0.068 +/- 20%	15	25	50	280	350	0.20	0.11	300	10
XFEI-2012 □ 82N □	0.85 [.033]	0.082 +/- 20%	15	25	50	255	320	0.20	0.11	300	10
XFEI-2012 □ R10 □	0.85 [.033]	0.10 +/- 20% or +/- 10%	20	30	25	235	300	0.30	0.16	250	10
XFEI-2012 □ R12 □	0.85 [.033]	0.12 +/- 20% or +/- 10%	20	30	25	220	280	0.30	0.16	250	10
XFEI-2012 □ R15 □	0.85 [.033]	0.15 +/- 20% or +/- 10%	20	30	25	200	250	0.40	0.21	250	10
XFEI-2012 □ R18 □	0.85 [.033]	0.18 +/- 20% or +/- 10%	20	30	25	185	230	0.40	0.21	250	10
XFEI-2012 □ R22 □	0.85 [.033]	0.22 +/- 20% or +/- 10%	20	30	25	170	220	0.50	0.26	250	10
XFEI-2012 □ R27 □	0.85 [.033]	0.27 +/- 20% or +/- 10%	20	30	25	150	200	0.50	0.26	250	10
XFEI-2012 □ R33 □	0.85 [.033]	0.33 +/- 20% or +/- 10%	20	30	25	145	180	0.55	0.31	250	10
XFEI-2012 □ R39 □	0.85 [.033]	0.39 +/- 20% or +/- 10%	25	35	25	135	170	0.65	0.36	200	10
XFEI-2012 □ R47 □	1.25 [.049]	0.47 +/- 20% or +/- 10%	25	35	25	125	160	0.65	0.36	200	14
XFEI-2012 □ R56 □	1.25 [.049]	0.56 +/- 20% or +/- 10%	25	35	25	115	150	0.75	0.41	150	14
XFEI-2012 □ R68 □	1.25 [.049]	0.68 +/- 20% or +/- 10%	25	35	25	105	135	0.80	0.46	150	14
XFEI-2012 □ R82 □	1.25 [.049]	0.82 +/- 20% or +/- 10%	25	35	25	100	125	1.00	0.56	150	14
XFEI-2012 □ 1R0 □	0.85 [.033]	1.0 +/- 20% or +/- 10%	45	55	10	75	105	0.40	0.21	50	10
XFEI-2012 □ 1R2 □	0.85 [.033]	1.2 +/- 20% or +/- 10%	45	55	10	65	95	0.50	0.26	50	10
XFEI-2012 □ 1R5 □	0.85 [.033]	1.5 +/- 20% or +/- 10%	45	55	10	60	85	0.50	0.26	50	10
XFEI-2012 □ 1R8 □	0.85 [.033]	1.8 +/- 20% or +/- 10%	45	55	10	55	78	0.60	0.31	50	10
XFEI-2012 □ 2R2 □	0.85 [.033]	2.2 +/- 20% or +/- 10%	45	60	10	50	70	0.65	0.36	30	10
XFEI-2012 □ 2R7 □	1.25 [.049]	2.7 +/- 20% or +/- 10%	45	60	10	45	64	0.75	0.41	30	14
XFEI-2012 □ 3R3 □	1.25 [.049]	3.3 +/- 20% or +/- 10%	45	60	10	41	58	0.80	0.46	30	14
XFEI-2012 □ 3R9 □	1.25 [.049]	3.9 +/- 20% or +/- 10%	45	60	10	38	53	0.90	0.51	30	14
XFEI-2012 □ 4R7 □	1.25 [.049]	4.7 +/- 20% or +/- 10%	45	60	10	35	48	1.00	0.56	30	14
XFEI-2012 □ 5R6 □	1.25 [.049]	5.6 +/- 20% or +/- 10%	50	60	4	32	44	0.90	0.51	15	14
XFEI-2012 □ 6R8 □	1.25 [.049]	6.8 +/- 20% or +/- 10%	50	60	4	29	40	1.00	0.56	15	14
XFEI-2012 □ 8R2 □	1.25 [.049]	8.2 +/- 20% or +/- 10%	50	60	4	26	36	1.10	0.61	15	14
XFEI-2012 □ 100 □	1.25 [.049]	10.0 +/- 20% or +/- 10%	50	60	2	24	33	1.15	0.66	15	14
XFEI-2012 □ 120 □	1.25 [.049]	12.0 +/- 20% or +/- 10%	50	60	2	22	30	1.25	0.71	15	14
XFEI-2012 □ 150 □	1.25 [.049]	15.0 +/- 20% or +/- 10%	30	40	1	19	27	0.80	0.46	5	14
XFEI-2012 □ 180 □	1.25 [.049]	18.0 +/- 20% or +/- 10%	30	40	1	18	25	0.90	0.51	5	14
XFEI-2012 □ 220 □	1.25 [.049]	22.0 +/- 20% or +/- 10%	30	40	1	16	22	1.10	0.61	5	14
XFEI-2012 □ 270 □	1.25 [.049]	27.0 +/- 20% or +/- 10%	30	40	1	14	20	1.15	0.66	5	14
XFEI-2012 □ 330 □	1.25 [.049]]	33.0 +/- 20% or +/- 10%	30	40	0.4	13	18	1.25	0.71	5	14

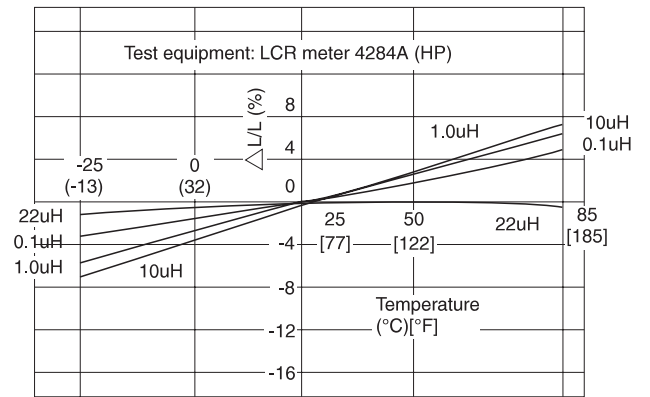
*1 47N = 47nh = 0.047uh

TYPICAL ELECTRICAL CHARACTERISTIC XFEI 2012 SERIES

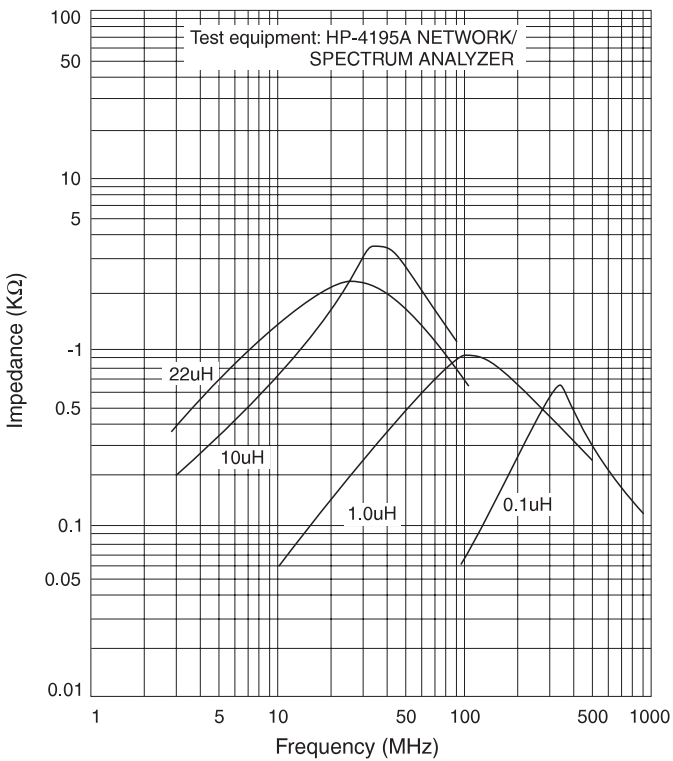
Q vs. Frequency characteristics



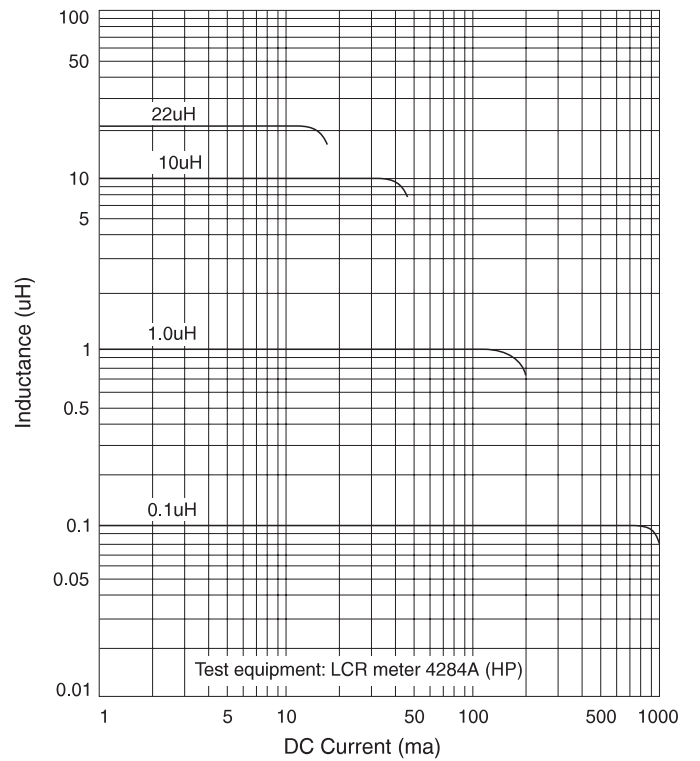
Inductance vs. temperature characteristics




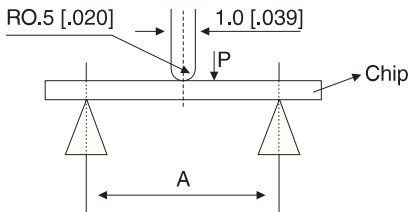
Impedance vs. frequency characteristics



Inductance vs. DC superposition characteristics



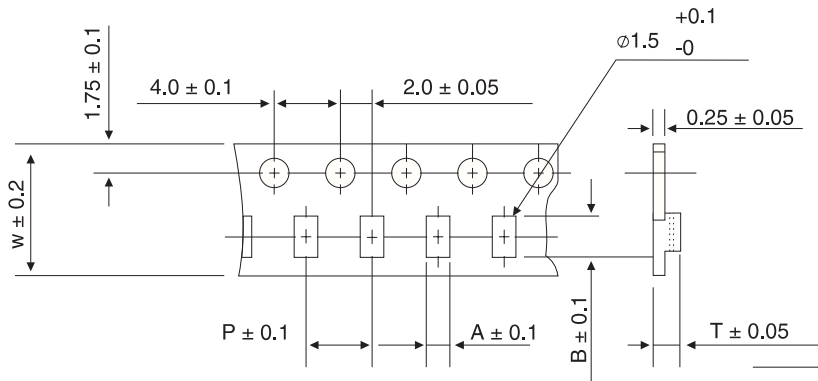
RELIABILITY AND TEST CONDITIONS

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

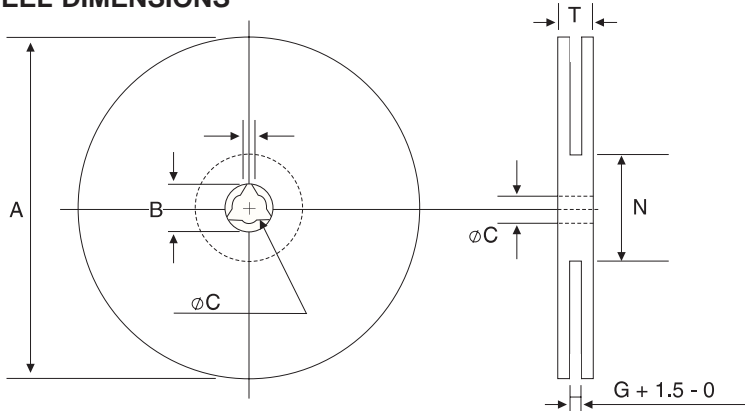


TAPE MATERIAL:
CARRIER TYPE: POLYSTYRENE

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	

