

4F Series, Single (4FUS, 4FS), Double (4FW), or Triple (4FT) Quadruple (4FFQ, 4FFQS)

For reflow soldering

Frequency Range: 0.1~15MHz

Inductance Range: 4FJ 10~600 μ H

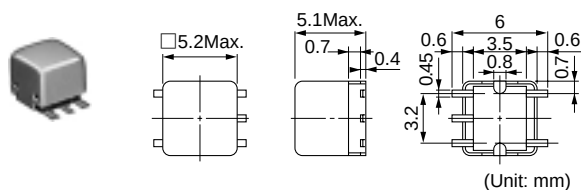
4F 10~700 μ H

4FN 10~1200 μ H

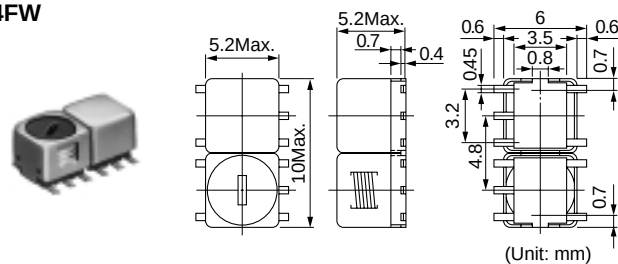
Optional capacitance values: 4 to 750 pF

Q: 40

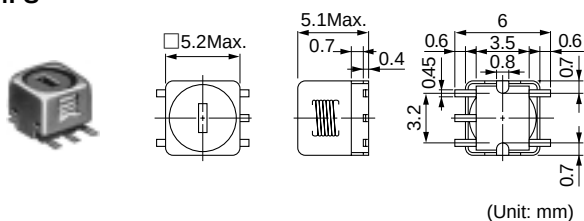
4FUS: (without adjusting hole)



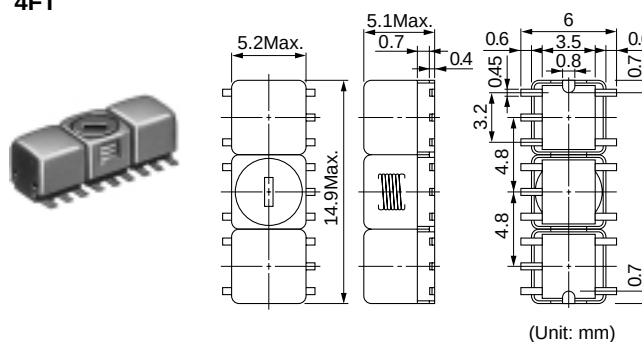
4FW



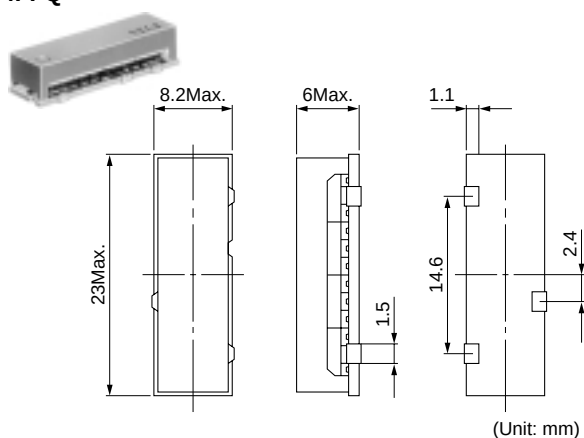
4FS



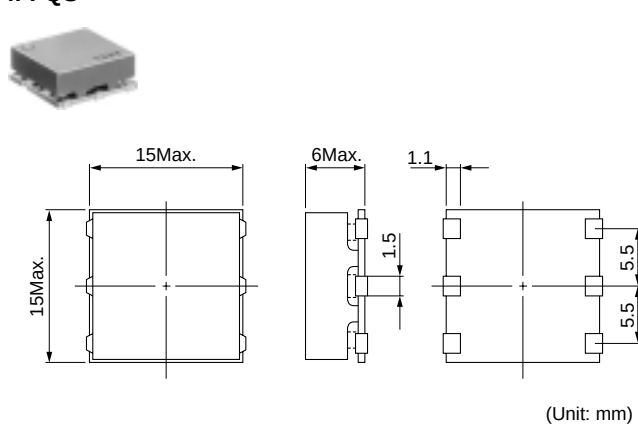
4FT



4FFQ



4FFQS



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Features

- Ultra-compact LC block filters based on 4mm square coil units. Suitable for surface mounting.
- Basic units will take up to 2 built-in capacitors.
- Adjustable and non-adjustable types available. Up to three units may be used in combination.
- Highly adaptable — suitable for highpass, lowpass, and bandpass filters, delay lines, equalizers, etc.
- Shield case minimizes interference with other components, allowing high-density layout.
- Suitable for surface mounting (reflow soldering).

Applications

- Developed for use in the increasingly compact world of video equipment.

特 長

- 4角面実装コイルを基本ユニットとした超小形LCフィルタ
- 基本ユニットのコイルは、コンデンサ2個内蔵可能
- 調整形、無調整形コイルを1～3個まで組み合わせ自由
- 設計自由度の広いハイパスフィルタ、ローパスフィルタ、バンドパスフィルタ、ディレイライン、イコライザなどの設計が可能
- シールドケース付のため、他部品との相互干渉が少なく高密度実装が可能
- プリント基板に面実装（リフロはんだ）が可能

用 途

- 小形化の進むビデオ機器用

SELECTION GUIDE FOR STANDARD FILTERS

4F Series

東光品番	タイプ	帯域幅	入出カインピーダンス	備考
TOKO Part Number	Type	Bandwidth MHz (-3dB)	Input/Output Impedance (Ω)	Notes
H354BAI-1425DAD	4FUS	2.9/4.3	1000	3.58MHz BPF
H354BAI-1748DAD	4FUS	3.7/5.2	1000	4.43MHz BPF
H355BSJ-1157KP	4FW	2.4/4.5	1000	3.58MHz BPF (with trap)*
H355BSJ-2990KDD	4FW	3.4/5.4	1000	4.43MHz BPF (with trap)*

* with Trap
トラップ付

SELECTION GUIDE FOR LPF STANDARD FILTERS

TYPE: 4FS

No.	カットオフ 周波数	群遅延時間	トラップ 周波数	東光品番
No.	Cut-Off Freq. (MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	0.5	520	3.58	H353LCI-1844
2	0.7	320	3.58	H353LCI-1750
3	0.8	255	3.58	H353LCI-4691
4	0.9	240	3.58	H353LCI-1759
5	1.0	250	3.58	H353LCI-4580
6	1.3	180	3.58	H353LCI-5087
7	2.5	100	7.16	H353LCI-4536
8	1.0	220		H353LCI-2077
9	1.2	250		H353LCI-3532
10	1.5	200		TH353LCI-4073

TYPE: 4FUS

No.	カットオフ 周波数	群遅延時間	トラップ 周波数	東光品番
No.	Cut-Off Freq. (MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	1.1	300	3.58	H354LAI-2258
2	1.2	200	3.58	H354LBI-2542
3	0.5	450	4.43	H354LAI-3056
4	0.7	360	4.43	H354LCI-2913
5	1.0	260	4.43	H354LNI-2882
6	1.2	280	4.43	H354LAI-4862
7	1.3	250	4.43	H354LAI-4968
8	1.0	330	7.16	H354LBI-3357
9	1.5	200	7.16	H354LBI-3284
10	2.8	120	10.70	H354LAI-4435
11	1.2	260		H354LAI-4945
12	1.3	400		H354LAI-4703
13	1.5	200		H354LAI-4626
14	2.0	150		H354LAI-4679
15	2.5	140		H354LAI-4736
16	3.0	100		H354LAI-3358
17	3.5	100		H354LAI-4875
18	4.5	120		G354LAI-2997
19	5.0	80		H354LAI-3158
20	5.5	60		H354LAI-4402
21	6.0	70		H354LAI-3159
22	7.0	50		G354LAI-3453
23	8.0	70		H354LAI-1226
24	9.0	30		G354LAI-3451

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SELECTION GUIDE FOR STANDARD FILTERS

TYPE: 4FW

No.	カットオフ 周波数	群遅延時間	トラップ 周波数	東光品番
No.	Cut-off Freq. (MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	0.7	780	3.58	H355LNL-3590
2	0.8	460	3.58	H355LNK-4169
3	0.9	600	3.58	H355LNK-1682
4	1.0	360	3.58	H355LSK-4141
5	1.2	480	3.58	H355LSK-4139
6	1.3	260	3.58	H355LSK-2517
7	1.5	300	3.58	H355LSK-1791
8	1.8	340	3.58	H355LSK-3909
9	2.0	280	3.58	H355LSJ-2840
10	0.7	750	4.43	H355LNK-2154
11	0.9	850	4.43	H355LNK-2139
12	1.0	630	4.43	H355LNK-2141
13	1.3	670	4.43	H355LNK-2420
14	1.5	225	4.43	H355LNL-1240
15	2.2	200	4.43	H355LSJ-4328
16	2.5	200	4.43	H355LSJ-4247
17	2.8	200	4.43	H355LSK-4077
18	1.5	220	7.16	TH355LSK-4681
19	1.8	220	7.16	H355LSK-4075
20	2.5	120	7.16	H355LDJ-3074
21	2.8	210	7.16	H355LSK-2903
22	3.0	200	7.16	H355LSJ-3938
23	3.5	250	7.16	H355LNK-1569
24	4.0	180	7.16	H355LSK-4406
25	4.5	175	7.16	H355LSK-1622
26	1.8	200	8.86	TH355LSK-4889
27	2.2	225	8.86	H355LSK-2924
28	3.5	195	8.86	H355LNK-2052
29	4.0	195	8.86	H355LSJ-3914
30	5.0	120	8.86	H355LSK-4597
31	6.0	100	8.86	G355LSK-4575
32	4.0	170	10.7	H355LSJ-3133
33	4.5	140	10.7	H355LSJ-3369
34	5.0	170	10.7	H355LSK-4116
35	5.5	120	10.7	H355LSK-3334
36	6.0	125	10.7	H355LSK-3149
37	7.0	140	10.7	H355LNK-4727
38	3.0	160	14.3	H355LSJ-1156
39	5.0	175	14.3	H355LSK-2922
40	5.5	130	14.3	H355LNK-2037
41	6.0	90	14.3	H355LSJ-4539
42	8.0	100	14.3	TH355LSK-4876
43	10.0	75	14.3	H355LSJ-4571
44	0.7	430		H355LSK-2032
45	3.0	260		H355LNK-1132
46	3.5	300		H355LNK-1231
47	4.0	220		H355LNK-4627
48	4.5	200		H355LNK-1237
49	5.0	200		TH355LNK-4867
50	6.0	150		TH355LNK-4478
51	7.0	150		H355LNK-2931
52	8.0	100		H355LSK-4079
53	10.0	80		TH355LNK-4550

LPF

TYPE: 4FT

No.	カットオフ 周波数	群遅延時間	トラップ 周波数	東光品番
No.	Cut-off Freq. (MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	1.5	660	3.58	H356LNL-2754
2	2.0	490	3.58	H356LNL-3372
3	2.2	500	3.58	H356LSM-2942
4	2.5	350	3.58	H356LSM-4609
5	2.8	550	3.58	H356LSM-5199
6	3.0	300	3.58	H356LSL-2554
7	1.0	500	4.43	H356LNM-1990
8	2.0	640	4.43	H356LSM-3382
9	2.5	400	4.43	H356LNM-5128
10	2.8	500	4.43	H356LSM-2470
11	3.0	500	4.43	H356LSM-2476
12	2.2	300	4.43	H356LNL-2851
13	3.5	280	4.43	TH356LSM-4873
14	4.0	150	4.43	TH356LDL-5010
15	5.0	150	4.43	H356LDL-2669
16	1.5	300	7.16	H356LNK-3271
17	2.8	450	7.16	H356LNM-2167
18	3.0	400	7.16	H356LSM-3052
19	3.5	200	7.16	H356LDM-3967
20	4.0	230	7.16	H356LSM-4974
21	4.5	150	7.16	H356LDL-3339
22	5.0	200	7.16	H356LNL-3237
23	5.5	220	7.16	H356LSM-5120
24	6.0	90	7.16	H356LDM-4935
25	6.0	90	7.16	H356LDM-4701
26	5.5	280	8.86	H356LNM-3795
27	5.5	180	10.70	TH356LNM-5189
28	6.0	230	10.70	H356LSM-2671
29	7.0	150	10.70	H356LSL-2974
30	4.5	250	14.30	H356LSM-3567
31	5.5	250	14.30	H356LSM-3518
32	6.0	220	14.30	H356LSM-2951
33	7.0	220	14.30	TH356LSM-5109
34	8.0	130	14.30	TH356LSK-3811
35	1.0	500		H356LNL-3638
36	5.0	180		TH356LNL-3919
37	5.5	310		H356LNM-2519
38	6.0	220		H356LSM-3648
39	7.0	250		TH356LNM-4505
40	8.0	230		TH356LNM-4449

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SELECTION GUIDE FOR EQT & BPF STANDARD FILTERS

EQT

TYPE: 4FUS

No.	帯域幅	群遅延時間	東光品番
No.	Band-width (-3dB MHz)	Group Delay Time (ns.)	TOKO Sample No.
1	1.5	60	G354EAI-4714
2	5.0	80	G354EAI-3049
3	2.0	150	G354EAI-4346
4	1.5	180	TG354EAI-5111
5	1.5	220	G354EAI-4947
6	1.5	240	G354EAI-1089
7	1.5	250	G354EAI-1388
8	0.5	400	G354EAI-4249
9	0.4	500	G354EAI-4647
10	0.4	600	G354EAI-4648

TYPE: 4FW

No.	帯域幅	群遅延時間	東光品番
No.	Band-width (-3dB MHz)	Group Delay Time (ns.)	TOKO Sample No.
1	10	70	G355ENK-3277
2	10	90	G355ENK-4546
3	10	100	G355ENK-3268
4	9	120	G355ENK-4455
5	6	160	G355ENK-4497
6	7	150	G355ENK-3238
7	5	180	G355ENK-4667
8	5	200	G355ENK-3504
9	4	220	G355ENK-3404
10	3	250	G355ENK-4099
11	3	300	G355ENK-4100
12	1.5	600	G355ENK-1677
13	1.5	650	G355ENK-2221
14	7	140	TG355ENK-5239

TYPE: 4FT

No.	帯域幅	群遅延時間	東光品番
No.	Band-width (-3dB MHz)	Group Delay Time (ns.)	TOKO Sample No.
1	10	150	G356ENM-3269
2	10	180	G356ENM-4136
3	9	200	G356ENM-4180
4	8	240	H356ENM-4338
5	7	250	H356ENM-3018
6	5	300	H356ENM-3823
7	4	350	G356ENM-2705
8	4	400	G356ENM-4605
9	4	450	G356ENM-2633
10	3	500	G356ENM-2361
11	2	550	G356ENM-4919
12	2	650	G356ENM-4926

BPF

TYPE: 4FS

No.	中心周波数	帯域幅	群遅延時間	トラップ周波数	東光品番
No.	Center Freq. (MHz)	Band-width (-3dB MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	3.58	2.0	150		H353BCH-3318
2	3.58	1.8	200		H353BCH-3305

TYPE: 4FUS

No.	中心周波数	帯域幅	群遅延時間	トラップ周波数	東光品番
No.	Center Freq. (MHz)	Band-width (-3dB MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	3.58	3.8	100		H354BAI-4184
2	3.58	3.0	120		H354BAI-2660
3	3.58	2.8	150		H354BAI-4163
4	3.58	2.2	200		H354BAI-3200
5	3.58	1.8	200		H354BAI-4404
6	3.58	1.8	250		H354BAI-2998
7	3.58	1.2	270		H354BAI-3946
8	3.58	1.4	300		H354BAI-3195
9	3.58	1.3	350		H354BAI-3160
10	3.58	1.1	400		H354BAI-3927
11	3.58	1.0	450		H354BAI-2771
12	3.58	0.8	500		H354BAI-4601
13	4.43	2.1	150		H354BAI-3287
14	4.43	2.3	200		H354BAI-3989
15	4.43	1.6	250		H354BAI-1146
16	4.43	1.6	300		H354BAI-1748
17	4.43	1.1	400		H354BAI-4214

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SELECTION GUIDE FOR BPF & TRAP STANDARD FILTERS

TYPE: 4FW

No.	中心周波数	帯域幅	群遅延時間	トラップ周波数	東光品番
No.	Center Freq. (MHz)	Band-width (-3dB MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	1.5	1.2	1500		H355BDK-3315
2	1.5	0.2	2500		H355BDK-3852
3	1.7	0.3	1350		H355BDK-4061
4	1.7	0.2	3300		H355BDK-3853
5	3.58	1.3	350	4.84	H355BSJ-4013
6	3.58	2.7	400	4.84	H355BSK-1959
7	3.58	2.2	500	4.84	H355BSK-4944
8	3.58	3.4	250	5.06	H355BDJ-1557
9	3.58	2.6	450	5.06	H355BSK-2372
10	4.21	0.8	800		A355BNK-3798
11	4.32	1.9	450		H355BDK-1025
12	4.43	1.2	450	5.7	H355BSK-3536
13	4.43	2.3	500	5.7	H355BSK-1545
14	5.06	0.8	500		H355BDK-3478
15	5.06	1.0	700		A355BNK-3801
16	3.58	2.5	150		H355BSJ-4285
17	3.58	2.3	220		H355BSJ-1710
18	3.58	2.0	250		H355BSJ-3135
19	3.58	2.0	270		H355BSJ-1449
20	3.58	1.3	350		H355BDI-4112
21	3.58	2.5	400		H355BSK-5218
22	4.43	2.5	180		H355BSJ-2953
23	4.43	2.0	220		TH355BDI-4957
24	4.43	1.2	350		H355BDI-4325

TYPE: 4FT

No.	中心周波数	帯域幅	群遅延時間	トラップ周波数	東光品番
No.	Center Freq. (MHz)	Band-width (-3dB MHz)	Group Delay Time (ns.)	TRAP Freq. (MHz)	TOKO Sample No.
1	1.50	0.3	2000		TH356BTJ-5192
2	1.50	0.3	2500		H356BTK-2785
3	1.50	0.2	3000		TH356BTK-4821
4	1.50	0.2	3500		TH356BTK-4165
5	1.50	0.25	5000		TH356BTK-4984
6	1.70	0.2	6000		H356BTK-4166
7	3.58	1.0	500	5.06	H356BDM-1743
8	4.32	0.4	1000		H356BTJ-3599
9	4.43	1.5	550	5.70	H356BDL-3454
10	5.06	0.8	700		A356BTL-3456
11	5.17	0.4	1300		H356BTJ-3770
12	3.58	4.5	100		H356BTK-4291
13	3.58	3.0	200		H356BTK-1641
14	3.58	2.5	250		H356BTJ-1642
15	3.58	2.5	300		TH356BTM-4708
16	3.58	1.2	400		H356BTK-4835
17	3.58	1.2	500		H356BTL-1032
18	3.58	2.0	550		H356BTK-4672
19	3.58	0.7	700		H356BTK-5016
20	4.43	3.0	200		TH356BTM-4709

TRAP

TYPE: 4FS

No.	トラップ周波数	減衰量	東光品番
No.	TRAP Freq. (MHz)	Attenuation (dB)	TOKO Sample No.
1	1.50	37	A353TCH-1120
2	3.58	19	A353TCH-1194
3	4.286	32	A353TCH-3649
4	4.77	33	A353TCH-4183
5	4.80	32	A353TCH-2652
6	6.37	24	A353TCH-4221
7	7.16	34	A353TCH-4547
8	7.96	45	A353TCH-1436
9	8.867	16	A353TCH-4296
10	9.55	37	A353TCH-4185
11	13.50	47	A353TCH-4707
12	14.30	29	A353TCH-3379

TYPE: 4FS

No.	トラップ周波数	減衰量	東光品番
No.	TRAP Freq. (MHz)	Attenuation (dB)	TOKO Sample No.
1	1.50	24	A353TCH-1114
2	4.43	17	A353TCH-4762
3	4.46	26	A353TCH-2195
4	7.16	35	A353TCH-5127
5	9.80	21	A353TCH-3216
6	13.50	31	TA353TCH-3640