



Crystals



ABLS, ABLS2 and ABLSG Series HC49US SMD Crystals

Fig. 1

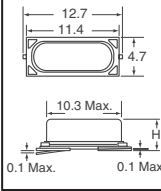
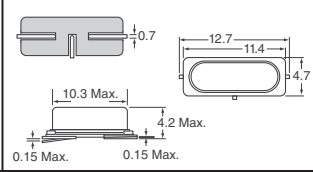


Fig. 2 — Third Lead is Case-Ground, Ideal for EMI Sensitive Applications



Series	H
ABLS, ABLS-LR	4.2
ABLS2	3.3

Series Specifications:	Frequency Stability	Frequency Tolerance	Operating Temperature	Load Capacitance
ABLS-xxxMHz-20-R50	±50ppm	±50ppm	0°C - 70°C	20.0pF
ABLS-xxxMHz-B2-T	±50ppm	±20ppm	-20°C - 70°C	18.0pF
ABLS-xxxMHz-10-R20-D	±50ppm	±50ppm	-40°C - 85°C	20.0pF
ABLS-xxxMHz-20-Rx0-D	±50ppm	±50ppm	-40°C - 85°C	20.0pF
ABLS-xxxMHz-D-R60-1-W-T	±25ppm	±10ppm	-40°C - 85°C	18.0pF
ABLS-xxxMHz-10-J4Y	±30ppm	±30ppm	-40°C - 105°C	10.0pF
ABLS-xxxMHz-K4-T	±30ppm	±30ppm	-40°C - 125°C	18.0pF
ABLS-xxxMHz-L4-Q-T	±100ppm	±30ppm	-55°C - 125°C	18.0pF
ABLS2-xxxMHz-D4Y-T	±30ppm	±30ppm	-40°C - 85°C	18.0pF
ABLS-LR-xxxMHz-T (3.00 - 3.579545MHz)	±100ppm	±50ppm	0°C - 70°C	18.0pF
ABLS-LR-xxxMHz-T	±50ppm	±50ppm	0°C - 70°C	18.0pF
ABLS-xxxMHz-B4-T	±50ppm	±30ppm	-20°C - 70°C	18.0pF
ABLSG-xxxMHz-D-2-Y-T	±30ppm	±20ppm	-40°C - 85°C	18.0pF

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1 10 50	Digi-Key Part No.	T & R Pricing 1,000	Abracon Part No.
3.000	535-10158-1-ND	3.96 3.44 3.02	535-10158-2-ND	1479.88	ABLS-LR-3.000MHz-T
3.072	535-10159-1-ND	3.96 3.44 3.02	535-10159-2-ND	1479.88	ABLS-LR-3.072MHz-T
3.278	535-10160-1-ND	3.96 3.44 3.02	535-10160-2-ND	1479.88	ABLS-LR-3.278MHz-T
3.579545	535-10161-1-ND	1.95 1.70 1.49	535-10161-2-ND	728.73	ABLS-LR-3.579545MHz-T
3.6864	535-10162-1-ND	1.95 1.70 1.49	535-10162-2-ND	728.73	ABLS-LR-3.6864MHz-T
4.000	535-10163-1-ND	1.95 1.70 1.49	535-10163-2-ND	728.73	ABLS-LR-4.000MHz-T
4.194304	535-10164-1-ND	1.95 1.70 1.49	535-10164-2-ND	728.73	ABLS-LR-4.194304MHz-T
4.433619	535-10165-1-ND	1.95 1.70 1.49	535-10165-2-ND	728.73	ABLS-LR-4.433619MHz-T
4.500	535-10166-1-ND	1.95 1.70 1.49	535-10166-2-ND	728.73	ABLS-LR-4.500MHz-T
4.9152	535-10167-1-ND	1.95 1.70 1.49	535-10167-2-ND	728.73	ABLS-LR-4.9152MHz-T
5.000	535-10168-1-ND	1.95 1.70 1.49	535-10168-2-ND	728.73	ABLS-LR-5.000MHz-T
6.000	535-10169-1-ND	1.95 1.70 1.49	535-10169-2-ND	728.73	ABLS-LR-6.000MHz-T
6.144	535-10170-1-ND	1.95 1.70 1.49	535-10170-2-ND	728.73	ABLS-LR-6.144MHz-T
6.7458	535-10171-1-ND	1.95 1.70 1.49	535-10171-2-ND	728.73	ABLS-LR-6.7458MHz-T
7.3728	535-10172-1-ND	1.95 1.70 1.49	535-10172-2-ND	728.73	ABLS-LR-7.3728MHz-T
8.000	535-10173-1-ND	1.95 1.70 1.49	535-10173-2-ND	728.73	ABLS-LR-8.000MHz-T
9.216	535-10174-1-ND	1.95 1.70 1.49	535-10174-2-ND	728.73	ABLS-LR-9.216MHz-T
9.8304	535-10175-1-ND	1.95 1.70 1.49	535-10175-2-ND	728.73	ABLS-LR-9.8304MHz-T
10.000	535-10176-1-ND	1.95 1.70 1.49	535-10176-2-ND	728.73	ABLS-LR-10.000MHz-T
10.240	535-10177-1-ND	1.95 1.70 1.49	535-10177-2-ND	728.73	ABLS-LR-10.240MHz-T
11.0592	535-10178-1-ND	1.95 1.70 1.49	535-10178-2-ND	728.73	ABLS-LR-11.0592MHz-T
12.000	535-10179-1-ND	1.95 1.70 1.49	535-10179-2-ND	728.73	ABLS-LR-12.000MHz-T
12.288	535-10180-1-ND	1.95 1.70 1.49	535-10180-2-ND	728.73	ABLS-LR-12.288MHz-T
13.000	535-10181-1-ND	1.95 1.70 1.49	535-10181-2-ND	728.73	ABLS-LR-13.000MHz-T
13.500	535-10182-1-ND	1.95 1.70 1.49	535-10182-2-ND	728.73	ABLS-LR-13.500MHz-T
14.31818	535-10183-1-ND	1.95 1.70 1.49	535-10183-2-ND	728.73	ABLS-LR-14.31818MHz-T
14.7456	535-10184-1-ND	1.95 1.70 1.49	535-10184-2-ND	728.73	ABLS-LR-14.7456MHz-T
15.000	535-10185-1-ND	1.95 1.70 1.49	535-10185-2-ND	728.73	ABLS-LR-15.000MHz-T
15.360	535-10186-1-ND	1.95 1.70 1.49	535-10186-2-ND	728.73	ABLS-LR-15.360MHz-T
16.000	535-10187-1-ND	1.95 1.70 1.49	535-10187-2-ND	728.73	ABLS-LR-16.000MHz-T
16.384	535-10188-1-ND	1.95 1.70 1.49	535-10188-2-ND	728.73	ABLS-LR-16.384MHz-T
16.9344	535-10189-1-ND	1.95 1.70 1.49	535-10189-2-ND	728.73	ABLS-LR-16.9344MHz-T
18.000	535-10190-1-ND	1.95 1.70 1.49	535-10190-2-ND	728.73	ABLS-LR-18.000MHz-T
18.432	535-10191-1-ND	1.95 1.70 1.49	535-10191-2-ND	728.73	ABLS-LR-18.432MHz-T
19.6608	535-10192-1-ND	1.95 1.70 1.49	535-10192-2-ND	728.73	ABLS-LR-19.6608MHz-T
20.000	535-10193-1-ND	1.95 1.70 1.49	535-10193-2-ND	728.73	ABLS-LR-20.000MHz-T
24.000	535-10194-1-ND	1.95 1.70 1.49	535-10194-2-ND	728.73	ABLS-LR-24.000MHz-T
24.5760	535-10195-1-ND	1.95 1.70 1.49	535-10195-2-ND	728.73	ABLS-LR-24.576MHz-T
25.000	535-10196-1-ND	1.95 1.70 1.49	535-10196-2-ND	728.73	ABLS-LR-25.000MHz-T
27.000	535-10197-1-ND	1.95 1.70 1.49	535-10197-2-ND	728.73	ABLS-LR-27.000MHz-T
28.63636	535-10198-1-ND	1.95 1.70 1.49	535-10198-2-ND	728.73	ABLS-LR-28.63636MHz-T
30.000	535-10199-1-ND	1.95 1.70 1.49	535-10199-2-ND	728.73	ABLS-LR-30.000MHz-T

Fig. 1 — ABLS-xxxMHz-B2-T Series

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1 10 50	Digi-Key Part No.	T & R Pricing 1,000	Abracon Part No.
3.579545	535-9081-1-ND	.45 .40 .35	535-9081-2-ND	168.17	ABLS-3.579545MHz-B2-T
3.686400	535-9082-1-ND	.45 .40 .35	535-9082-2-ND	168.17	ABLS-3.6864MHz-B2-T
4.000000	535-9085-1-ND	.45 .40 .35	535-9085-2-ND	168.17	ABLS-4.000MHz-B2-T
4.915200	535-9086-1-ND	.45 .40 .35	535-9086-2-ND	168.17	ABLS-4.9152MHz-B2-T
5.000000	535-9087-1-ND	.45 .40 .35	535-9087-2-ND	168.17	ABLS-5.000MHz-B2-T
7.372800	535-9088-1-ND	.45 .40 .35	535-9088-2-ND	168.17	ABLS-7.3728MHz-B2-T
8.000000	535-9089-1-ND	.45 .40 .35	535-9089-2-ND	168.17	ABLS-8.000MHz-B2-T
8.192000	535-9090-1-ND	.45 .40 .35	535-9090-2-ND	168.17	ABLS-8.192MHz-B2-T
10.000000	535-9095-1-ND	.45 .40 .35	535-9095-2-ND	168.17	ABLS-10.000MHz-B2-T
11.059200	535-9096-1-ND	.45 .40 .35	535-9096-2-ND	168.17	ABLS-11.0592MHz-B2-T
12.000000	535-9097-1-ND	.45 .40 .35	535-9097-2-ND	168.17	ABLS-12.000MHz-B2-T
12.288000	535-9098-1-ND	.45 .40 .35	535-9098-2-ND	168.17	ABLS-12.288MHz-B2-T
14.318180	535-9099-1-ND	.45 .40 .35	535-9099-2-ND	168.17	ABLS-14.31818MHz-B2-T
14.745600	535-9070-1-ND	.45 .40 .35	535-9070-2-ND	168.17	ABLS-14.7456MHz-B2-T
16.000000	535-9071-1-ND	.45 .40 .35	535-9071-2-ND	168.17	ABLS-16.000MHz-B2-T
18.432000	535-9072-1-ND	.45 .40 .35	535-9072-2-ND	168.17	ABLS-18.432MHz-B2-T
19.660800	535-9073-1-ND	.45 .40 .35	535-9073-2-ND	168.17	ABLS-19.6608MHz-B2-T
20.000000	535-9074-1-ND	.45 .40 .35	535-9074-2-ND	168.17	ABLS-20.000MHz-B2-T
22.118400	535-9075-1-ND	.45 .40 .35	535-9075-2-ND	168.17	ABLS-22.1184MHz-B2-T
24.000000	535-9076-1-ND	.45 .40 .35	535-9076-2-ND	168.17	ABLS-24.000MHz-B2-T
24.576000	535-9077-1-ND	.45 .40 .35	535-9077-2-ND	168.17	ABLS-24.576MHz-B2-T
25.000000	535-9078-1-ND	.45 .40 .35	535-9078-2-ND	168.17	ABLS-25.000MHz-B2-T
27.000000	535-9079-1-ND	.45 .40 .35	535-9079-2-ND	168.17	ABLS-27.000MHz-B2-T
32.000000	535-9080-1-ND	.45 .40 .35	535-9080-2-ND	168.17	ABLS-32.000MHz-B2-T

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1 10 50	Digi-Key Part No.	T & R Pricing 1,000	Abracon Part No.
48.00000	535-9083-1-ND	.45 .40 .35	535-9083-2-ND	168.17	ABLS-48.000MHz-B2-T
49.15200	535-9084-1-ND	.33 .29 .25	535-9084-2-ND	156.16	ABLS-49.152MHz-B2-T

Fig. 1 — ABLS-xxxMHz-B4-T

Frequency (MHz)	Digi-Key Part No.	Cut Tape Price Each 1 10 50	Digi-Key Part No.	T & R Pricing 1,000	Abracon Part No.
3.579545	535-10200-1-ND	.33 .29 .26	535-10200-2-ND	123.32	ABLS-3.579545MHz-B4-T
3.6864	535-10201-1-ND	.33 .29 .26	535-10201-2-ND	123.32	ABLS-3.6864MHz-B4-T
4.0000	535-10202-1-ND	.33 .29 .26	535-10202-2-ND	123.32	ABLS-4.000MHz-B4-T
4.194304	535-10203-1-ND	.33 .29 .26	535-10203-2-ND	123.32	ABLS-4.194304MHz-B4-T
4.433619	535-10204-1-ND	.33 .29 .26	535-10204-2-ND	123.32	ABLS-4.433619MHz-B4-T
4.5000	535-10205-1-ND	.33 .29 .26	535-10205-2-ND	123.32	ABLS-4.500MHz-B4-T
4.9152	535-10206-1-ND	.33 .29 .26	535-10206-2-ND	123.32	ABLS-4.9152MHz-B4-T
5.0000	535-10207-1-ND	.33 .29 .26	535-10207-2-ND	123.32	ABLS-5.000MHz-B4-T
6.0000	535-10208-1-ND	.33 .29 .26	535-10208-2-ND	123.32	ABLS-6.000MHz-B4-T
6.1440	535-10209-1-ND	.33 .29 .26	535-10209-2-ND	123.32	ABLS-6.144MHz-B4-T
6.7458	535-10210-1-ND	.33 .29 .26	535-10210-2-ND	123.32	ABLS-6.7458MHz-B4-T
7.3728	535-10211-1-ND	.33 .29 .26	535-10211-2-ND	123.32	ABLS-7.3728MHz-B4-T
8.0000	535-10212-1-ND	.33 .29 .26	535-10212-2-ND	123.32	ABLS-8.000MHz-B4-T
9.2160	535-10213-1-ND	.33 .29 .26	535-10213-2-ND	123.32	ABLS-9.216MHz-B4-T
9.8304	535-10214-1-ND	.33 .29 .26	535-10214-2-ND	123.32	ABLS-9.8304MHz-B4-T
10.0000	535-10215-1-ND	.33 .29 .26	535-10215-2-ND	123.32	ABLS-10.000MHz-B4-T
10.2400	535-10216-1-ND	.33 .29 .26	535-10216-2-ND	123.32	ABLS-10.240MHz-B4-T
11.0592	535-10217-1-ND	.33 .29 .26	535-10217-2-ND	123.32	ABLS-11.0592MHz-B4-T
12.0000	535-10218-1-ND	.33 .29 .26	535-10218-2-ND	123.32	ABLS-12.000MHz-B4-T
12.2880	535-10219-1-ND	.33 .29 .26	535-10219-2-ND	123.32	ABLS-12.288MHz-B4-T
13.0000	535-10220-1-ND	.33 .29 .26	535-10220-2-ND	123.32	ABLS-13.000MHz-B4-T
13.5000	535-10221-1-ND	.33 .29 .26	535-10221-2-ND	123.32	ABLS-13.500MHz-B4-T
14.318180	535-10222-1-ND	.33 .29 .26	535-10222-2-ND	123.32	ABLS-14.31818MHz-B4-T
14.745600	535-10223-1-ND	.33 .29 .26	535-10223-2-ND	123.32	ABLS-14.7456MHz-B4-T
15.0000	535-10224-1-ND	.33 .29 .26	535-10224-2-ND	123.32	ABLS-15.000MHz-B4-T
15.3600	535-10225-1-ND	.33 .29 .26	535-10225-2-ND	123.32	ABLS-15.360MHz-B4-T
16.0000	535-10226-1-ND	.33 .29 .26	535-10226-2-ND	123.32	ABLS-16.000MHz-B4-T
16.3840	535-10227-1-ND	.33 .29 .26	535-		