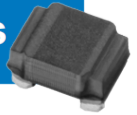


Wire Wound Chip Ferrite Inductor – SDWL – FW Series



Operating Temp ◆ $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

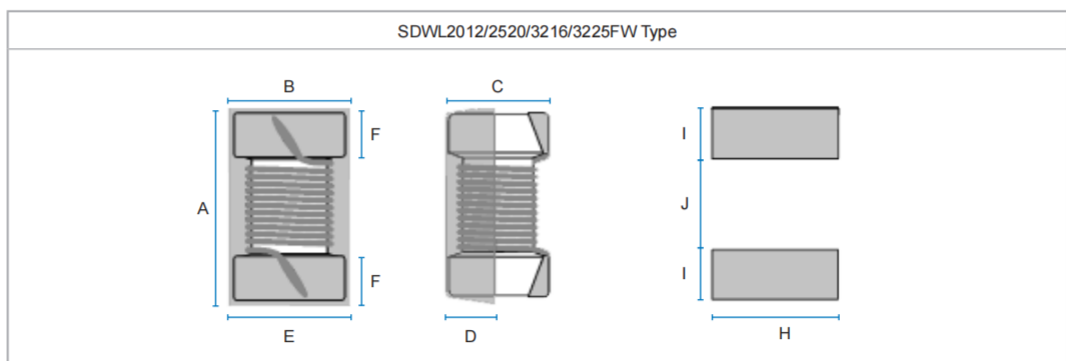
Features ◆ Small chip suitable for surface mounting
◆ High inductance with ferrite material

Applications ◆ Liquid crystal television and other electronic devices

Product Identification

1	2	3	4	5	6	7	8
SDWL	2012	FW	R27	J	S	T	F
1Type		2External Dimensions		3Material Code			
SDWL	Wire Wound Chip Inductor	2012 [0805]	2.29×1.73	FW	Ferrite		
		2520 [1008]	2.92×2.79				
		3216 [1206]	3.56×2.16				
		3225 [1210]	3.65×2.95				
4Nominal Inductance		5Inductance Tolerance					
Example	Nominal Value	J	±5%				
R27	270nH	K	±10%				
2R7	2.7μH	M	±20%				
100	10μH						
6Feature Type		7Packing		8Hazardous Substance Free Products			
S	Sn Plating Five-faces Coating	T	Tape & Reel	F			

Shape and Dimensions



Unit: mm

Series	A Max.	B Max.	C Max.	D Ref.	E	F	H Ref.	I Ref.	J Ref.
SDWL2012FW	2.29	1.73	1.55	0.51	1.27±0.2	0.51±0.2	1.78	1.02	0.76
SDWL2520FW	2.92	2.79	2.29	0.51	2.10±0.2	0.50±0.2	2.54	1.02	1.27
SDWL3216FW	3.56	2.16	1.52	0.51	1.60±0.2	0.50±0.2	1.93	1.02	1.78
SDWL3225FW	3.65	2.95	2.70	0.51	2.40±0.2	0.50±0.2	3.02	1.02	1.78

Specifications

SDWL2012FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL2012FW78N □ STF	0.078	J,K,M	15	7.9	2000	0.09	2000
SDWL2012FW90N □ STF	0.09	J,K,M	15	7.9	1200	0.09	2000
SDWL2012FWR11 □ STF	0.11	J,K,M	15	7.9	1200	0.05	2000
SDWL2012FWR12 □ STF	0.12	J,K,M	10	100	700	0.40	380
SDWL2012FWR27 □ STF	0.27	J,K,M	15	25	550	0.91	350
SDWL2012FWR33 □ STF	0.33	J,K,M	10	100	550	0.50	330
SDWL2012FWR39 □ STF	0.39	J,K,M	10	100	500	0.50	330
SDWL2012FWR47 □ STF	0.47	J,K,M	8	100	500	0.72	300
SDWL2012FWR56 □ STF	0.56	J,K,M	15	25	360	0.60	145
SDWL2012FWR68 □ STF	0.68	J,K,M	15	25	350	0.60	145
SDWL2012FWR82 □ STF	0.82	J,K,M	15	25	350	0.70	245
SDWL2012FW1R0 □ STF	1.0	J,K,M	15	7.9	63	1.20	245
SDWL2012FW1R1 □ STF	1.1	J,K,M	15	7.9	300	1.20	235
SDWL2012FW1R2 □ STF	1.2	J,K,M	15	7.9	60	1.00	225
SDWL2012FW1R5 □ STF	1.5	J,K,M	15	7.9	60	1.45	225
SDWL2012FW1R8 □ STF	1.8	J,K,M	15	7.9	60	1.45	200
SDWL2012FW2R0 □ STF	2.0	J,K,M	15	7.9	60	1.80	175
SDWL2012FW2R2 □ STF	2.2	J,K,M	10	7.9/50	200	2.50	100
SDWL2012FW2R7 □ STF	2.7	J,K,M	15	7.9	50	2.30	175
SDWL2012FW3R3 □ STF	3.3	J,K,M	15	7.9	50	2.30	175
SDWL2012FW3R9 □ STF	3.9	J,K,M	10	7.9	50	2.50	80
SDWL2012FW4R7 □ STF	4.7	J,K,M	15	7.9	43	2.80	140
SDWL2012FW5R6 □ STF	5.6	J,K,M	15	7.9	50	3.00	130
SDWL2012FW6R8 □ STF	6.8	J,K,M	15	7.9	36	3.40	115
SDWL2012FW7R0 □ STF	7.0	J,K,M	10	7.9	35	3.50	100
SDWL2012FW7R5 □ STF	7.5	J,K,M	10	7.9	35	3.50	100
SDWL2012FW8R2 □ STF	8.2	J,K,M	10	7.9/2.5	35	4.50	100
SDWL2012FW100 □ STF	10	J,K,M	10	2.5	30	4.70	98
SDWL2012FW120 □ STF	12	J,K,M	10	2.5	25	5.50	80
SDWL2012FW150 □ STF	15	J,K,M	10	2.5	23	6.50	80
SDWL2012FW180 □ STF	18	J,K,M	10	2.5	20	7.00	68
SDWL2012FW220 □ STF	22	J,K,M	10	2.5	20	8.00	68
SDWL2012FW270 □ STF	27	J,K,M	10	2.5	20	9.80	60
SDWL2012FW330 □ STF	33	J,K,M	10	2.5	17	10.70	60
SDWL2012FW390 □ STF	39	J,K,M	10	2.5	15	12.70	55
SDWL2012FW470 □ STF	47	J,K,M	10	2.5	14	13.80	55
SDWL2012FW680 □ STF	68	J,K,M	8	2.5	11	17.50	40

SDWL2520FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL2520FWR33 □ STF	0.33	J,K,M	50	25/100	600	0.17	700
SDWL2520FW1R0 □ STF	1.0	J,K,M	20	7.9/50	250	0.80	600
SDWL2520FW1R2 □ STF	1.2	J,K,M	37	7.9/50	250	0.80	650
SDWL2520FW1R5 □ STF	1.5	J,K,M	35	7.9/50	190	0.76	630
SDWL2520FW1R8 □ STF	1.8	J,K,M	33	7.9/50	170	0.84	600
SDWL2520FW2R2 □ STF	2.2	J,K,M	30	7.9/50	150	1.15	520
SDWL2520FW2R7 □ STF	2.7	J,K,M	25	7.9/50	120	1.30	490
SDWL2520FW3R3 □ STF	3.3	J,K,M	23	7.9/50	100	1.70	450

Specifications

SDWL2520FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL2520FW3R9□STF	3.9	J,K,M	26	7.9/25	100	2.00	420
SDWL2520FW4R7□STF	4.7	J,K,M	31	7.9	60	1.68	400
SDWL2520FW5R6□STF	5.6	J,K,M	23	7.9	80	2.65	380
SDWL2520FW6R8□STF	6.8	J,K,M	20	7.9	60	3.00	360
SDWL2520FW8R2□STF	8.2	J,K,M	20	7.9	40	3.30	330
SDWL2520FW100□STF	10	J,K,M	15	7.9	40	2.95	300
SDWL2520FW120□STF	12	J,K,M	15	7.9	40	3.50	250
SDWL2520FW150□STF	15	J,K,M	15	7.9	40	4.00	200
SDWL2520FW220□STF	22	J,K,M	15	7.9	40	10.0	100

SDWL3216FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL3216FWR68□STF	0.6	J, K, M	25	25/7.9	500	0.40	300
SDWL3216FW1R2□STF	1.2	J, K, M	25	7.9	260	0.80	360
SDWL3216FW1R5□STF	1.5	J, K, M	25	7.9	260	1.20	320
SDWL3216FW1R7□STF	1.7	J, K, M	25	7.9	250	1.00	320
SDWL3216FW1R8□STF	1.8	J, K, M	25	7.9	250	1.20	320
SDWL3216FW2R2□STF	2.2	J, K, M	25	7.9	240	1.30	300
SDWL3216FW2R7□STF	2.7	J, K, M	25	7.9	230	1.40	300
SDWL3216FW3R1□STF	3.1	J, K, M	25	7.9	200	1.10	280
SDWL3216FW3R3□STF	3.3	J, K, M	25	7.9	200	1.50	280
SDWL3216FW3R9□STF	3.9	J, K, M	25	7.9	190	1.90	280
SDWL3216FW4R7□STF	4.7	J, K, M	25	7.9	170	2.20	280
SDWL3216FW5R6□STF	5.6	J, K, M	25	7.9	160	2.40	260
SDWL3216FW6R8□STF	6.8	J, K, M	25	7.9	150	2.80	240
SDWL3216FW8R2□STF	8.2	J, K, M	25	7.9	130	3.10	220
SDWL3216FW100□STF	10.0	J, K, M	25	7.9	120	4.00	200
SDWL3216FW120□STF	12.0	J, K, M	18	2.5	110	4.60	200
SDWL3216FW150□STF	15.0	J, K, M	16	2.5	90	8.20	160
SDWL3216FW180□STF	18.0	J, K, M	16	2.5	80	9.00	130

SDWL3225FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL3225FWR12□STF	0.12	J, K, M	30	25	500	0.22	450
SDWL3225FWR15□STF	0.15	J, K, M	30	25	450	0.40	450
SDWL3225FWR18□STF	0.18	J, K, M	30	25	400	0.28	450
SDWL3225FWR22□STF	0.22	J, K, M	30	25	350	0.32	450
SDWL3225FWR27□STF	0.27	J, K, M	30	25	320	0.36	450
SDWL3225FWR33□STF	0.33	J, K, M	30	25	300	0.40	450
SDWL3225FWR39□STF	0.39	J, K, M	30	25	250	0.45	450
SDWL3225FWR47□STF	0.47	J, K, M	30	25	220	0.50	450
SDWL3225FWR51□STF	0.51	J, K, M	30	25	180	0.55	450
SDWL3225FWR56□STF	0.56	J, K, M	30	25	180	0.55	450
SDWL3225FWR68□STF	0.68	J, K, M	30	25	160	0.60	450

Specifications

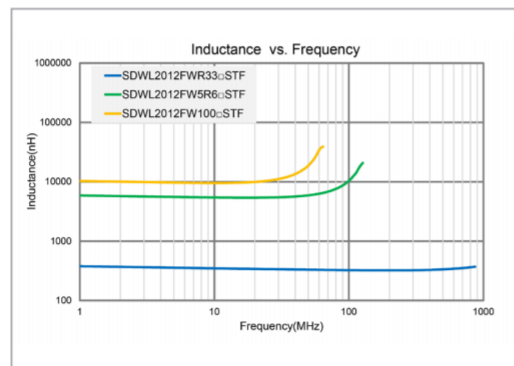
SDWL3225FW TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	μH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I _r
SDWL3225FWR82 $\square$ STF	0.82	J, K, M	30	25	140	0.65	450
SDWL3225FW1R0 $\square$ STF	1.0	J, K, M	30	7.9	120	0.70	400
SDWL3225FW1R2 $\square$ STF	1.2	J, K, M	30	7.9	100	0.75	390
SDWL3225FW1R5 $\square$ STF	1.5	J, K, M	30	7.9	85	0.85	370
SDWL3225FW1R8 $\square$ STF	1.8	J, K, M	30	7.9	80	0.90	350
SDWL3225FW2R2 $\square$ STF	2.2	J, K, M	30	7.9	75	1.00	320
SDWL3225FW2R7 $\square$ STF	2.7	J, K, M	30	7.9	70	1.10	290
SDWL3225FW3R3 $\square$ STF	3.3	J, K, M	30	7.9	60	1.20	260
SDWL3225FW3R9 $\square$ STF	3.9	J, K, M	30	7.9	55	1.30	250
SDWL3225FW4R7 $\square$ STF	4.7	J, K, M	30	7.9	50	1.50	224
SDWL3225FW5R6 $\square$ STF	5.6	J, K, M	30	7.9	45	1.60	204
SDWL3225FW6R8 $\square$ STF	6.8	J, K, M	30	7.9	40	1.80	180
SDWL3225FW8R2 $\square$ STF	8.2	J, K, M	30	7.9	35	2.00	170
SDWL3225FW100 $\square$ STF	10	J, K, M	25	7.9	30	2.10	150
SDWL3225FW120 $\square$ STF	12	J, K, M	25	7.9	20	2.50	140
SDWL3225FW150 $\square$ STF	15	J, K, M	20	2.5	20	4.50	120
SDWL3225FW180 $\square$ STF	18	J, K, M	20	2.5	20	5.60	120
SDWL3225FW200 $\square$ STF	20	J, K, M	20	2.5	20	5.60	120
SDWL3225FW220 $\square$ STF	22	J, K, M	20	2.5	20	5.60	120
SDWL3225FW250 $\square$ STF	25	J, K, M	20	2.5	20	6.00	120
SDWL3225FW270 $\square$ STF	27	J, K, M	20	2.5	20	6.50	100
SDWL3225FW330 $\square$ STF	33	J, K, M	20	2.5	18	6.50	100
SDWL3225FW470 $\square$ STF	47	J, K, M	20	2.5	15	6.80	100
SDWL3225FW560 $\square$ STF	56	J, K, M	20	2.5	15	9.00	80
SDWL3225FW680 $\square$ STF	68	J, K, M	30	2.5	15	11.00	80

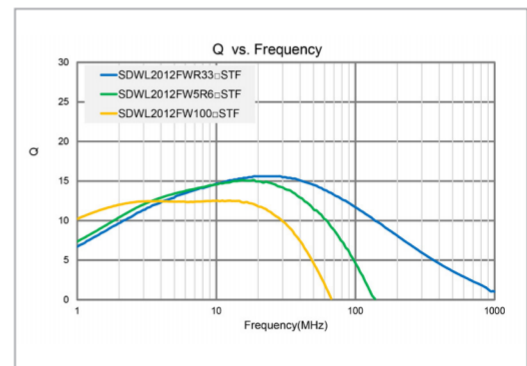
Typical
Electrical
Characteristics

SDWL2012FW TYPE

Inductance vs. Frequency Characteristics



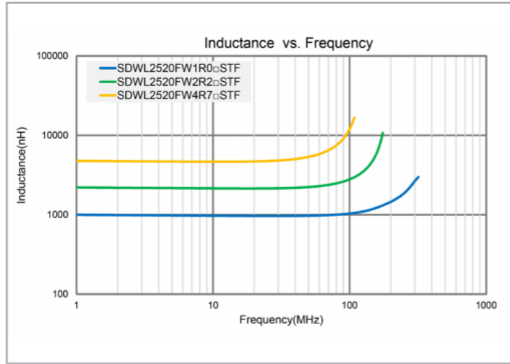
Q vs. Frequency Characteristics



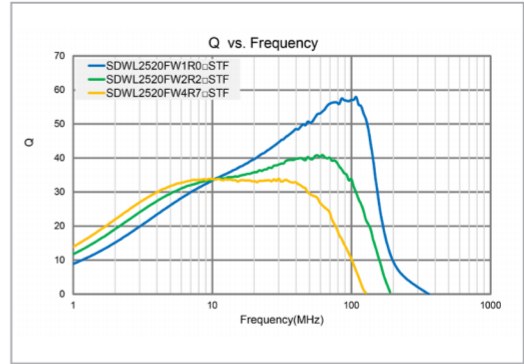
**Typical
Electrical
Characteristics**

SDWL2520FW TYPE

Inductance vs. Frequency Characteristics

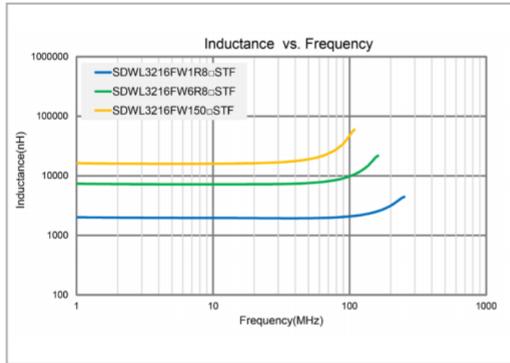


Q vs. Frequency Characteristics

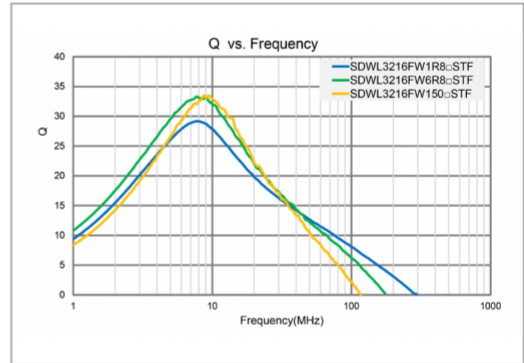


SDWL3216FW TYPE

Inductance vs. Frequency Characteristics

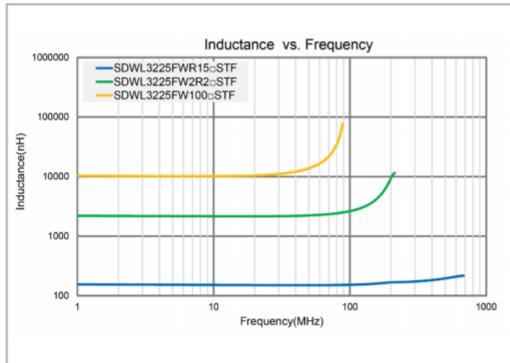


Q vs. Frequency Characteristics



SDWL3225FW TYPE

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

