

## SMD POWER INDUCTORS

### Series DI

#### PRODUCT IDENTIFICATION

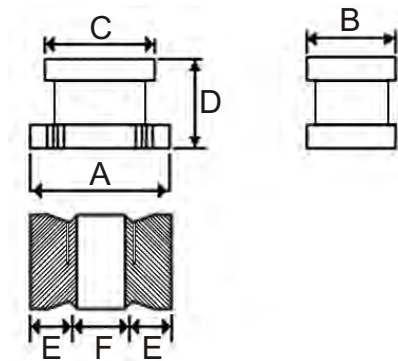
$\frac{DI}{a}$     $\frac{20}{b}$     $\frac{X}{c}$     $\frac{18}{d}$     $\frac{1}{e}$     $\frac{K}{f}$     $\frac{10U}{g}$

- a : Type of Products - SMD Power Inductors DI series  
 b : Dimension(mm) - 15 : 2.0X1.5, 20 : 2.5X2.0, 16 : 3.2X1.6  
                                   25 : 3.2X2.5, 32 : 4.5X3.2, 50 : 5.7X5.0  
 c : Materials - X - No Use  
 d : Thickness(mm) - 14 = 1.4, 15 = 1.5, 18 = 1.8, 20 = 2.0, 26 = 2.6, 50 = 4.7  
 e : Packing - PCS/REEL - R = 750, 1 = 1000, 2 = 2000, K = 2500  
 f : Tolerance - K :  $\pm 10\%$    M :  $\pm 20\%$   
 g : Inductance - 100N = 0.1  $\mu$ H, 10U = 10.0  $\mu$ H, 1M2 = 1200  $\mu$ H

#### GENERAL SPECIFICATIONS

- ◆ Rise Temperature : 40°C Max.
- ◆ Operating Temperature : -25°C to +105°C
- ◆ Resistance to solder heat : 250°C / 10 Sec.

#### SHAPES & DIMENSIONS



Unit : mm

Type	A	B	C	D	E (typ.)	F (typ.)
DI15X14	2.0 $\pm$ 0.3	1.5 $\pm$ 0.3	1.5 $\pm$ 0.3	1.4 $\pm$ 0.4	0.5	1
DI20X18	2.5 $\pm$ 0.3	2.0 $\pm$ 0.3	2.0 $\pm$ 0.3	1.8 $\pm$ 0.4	0.6	1.3
DI16X18	3.2 $\pm$ 0.3	1.6 $\pm$ 0.2	2.3 $\pm$ 0.2	1.8 $\pm$ 0.4	0.9	1.3
DI25X15	3.2 $\pm$ 0.3	2.5 $\pm$ 0.2	2.5 $\pm$ 0.2	1.5 $\pm$ 0.2	0.9	1.3
DI25X20	3.2 $\pm$ 0.3	2.5 $\pm$ 0.2	2.5 $\pm$ 0.2	2.0 $\pm$ 0.4	0.9	1.3
DI32X26	4.5 $\pm$ 0.3	3.2 $\pm$ 0.2	3.6 $\pm$ 0.2	2.6 $\pm$ 0.4	1.4	1.3
DI50X50	5.7 $\pm$ 0.3	5.0 $\pm$ 0.3	5.0 $\pm$ 0.3	4.7 $\pm$ 0.5	2	1.7

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### ELECTRICAL CHARACTERISTICS

 Test Frequency 0.8  $\mu$ H ~ 8.2  $\mu$ H @ 100KHz / 0.25V

 10  $\mu$ H ~ 10000  $\mu$ H @ 1KHz / 0.25V

#### DI15X14

Part Number	Inductance ( $\mu$ H)	Test Frequency (Khz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI15X142□100N	0.1	100	68	0.018	4240
DI15X142□120N	0.12	100	68	0.022	3970
DI15X142□150N	0.15	100	68	0.023	3870
DI15X142□180N	0.18	100	68	0.029	3100
DI15X142□220N	0.22	100	68	0.034	3070
DI15X142□270N	0.27	100	68	0.042	2460
DI15X142□330N	0.33	100	67	0.048	2070
DI15X142□390N	0.39	100	67	0.059	1610
DI15X142□470N	0.47	100	67	0.068	1530
DI15X142□560N	0.56	100	65	0.091	1480
DI15X142□680N	0.68	100	65	0.101	1370
DI15X142□820N	0.82	100	65	0.116	1280
DI15X142□1U	1	100	63	0.160	750
DI15X142□1U5	1.5	100	63	0.247	700
DI15X142□2U	2	100	62	0.300	650
DI15X142□2U2	2.2	100	62	0.330	610
DI15X142□2U7	2.7	100	60	0.360	550
DI15X142□3U3	3.3	100	60	0.500	500
DI15X142□3U9	3.9	100	50	0.700	490
DI15X142□4U7	4.7	100	50	0.740	470
DI15X142□6U8	6.8	100	36	0.970	450
DI15X142□8U2	8.2	100	36	1.490	400
DI15X142□10U	10	1	30	1.620	370
DI15X142□12U	12	1	30	1.890	340
DI15X142□15U	15	1	30	2.170	320
DI15X142□22U	22	1	23	3.420	250
DI15X142□27U	27	1	23	4.280	210
DI15X142□33U	33	1	22	5.470	200
DI15X142□39U	39	1	22	6.290	170
DI15X142□47U	47	1	20	9.870	130
DI15X142□68U	68	1	20	12.170	110
DI15X142□82U	82	1	18	14.500	90
DI15X142□100U	100	1	18	19.620	80
DI15X142□120U	120	1	18	22.030	23

#### DI20X18

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI20X182□220N	0.22	100	93	0.032	350
DI20X182□390N	0.39	100	95	0.042	330
DI20X182□1U	1	100	85	0.078	300
DI20X182□1U2	1.2	100	80	0.090	290
DI20X182□1U5	1.5	100	75	0.100	280
DI20X182□1U8	1.8	100	60	0.110	270
DI20X182□2U2	2.2	100	50	0.120	250
DI20X182□2U7	2.7	100	43	0.200	240
DI20X182□3U3	3.3	100	38	0.240	230
DI20X182□3U9	3.9	100	35	0.280	220
DI20X182□4U7	4.7	100	31	0.300	210
DI20X182□5U6	5.6	100	28	0.340	205
DI20X182□6U8	6.8	100	25	0.440	200
DI20X182□8U2	8.2	100	23	0.590	195
DI20X182□10U	10	1	20	0.680	190
DI20X182□12U	12	1	18	0.770	185
DI20X182□15U	15	1	16	0.870	180
DI20X182□18U	18	1	15	1.200	175
DI20X182□22U	22	1	14	1.340	170
DI20X182□27U	27	1	13	1.860	165
DI20X182□33U	33	1	12	2.100	160
DI20X182□39U	39	1	11	2.350	155
DI20X182□56U	56	1	10	3.700	145
DI20X182□68U	68	1	10	6.000	135
DI20X182□82U	82	1	8	6.900	125
DI20X182□100U	100	1	8	7.750	110
DI20X182□220U	220	1	8	13.420	90

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### ELECTRICAL CHARACTERISTICS

Test Frequency 0.8  $\mu$ H ~ 8.2  $\mu$ H @ 100KHz / 0.25V      10  $\mu$ H ~ 10000  $\mu$ H @ 1KHz / 0.25V

#### DI16X18

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI16X182 100N	0.1	100	103	0.110	185
DI16X182 120N	0.12	100	103	0.130	184
DI16X182 220N	0.22	100	103	0.140	183
DI16X182 290N	0.29	100	100	0.150	182
DI16X182 470N	0.47	100	100	0.170	178
DI16X182 500N	0.5	100	100	0.180	175
DI16X182 1U	1	100	100	0.490	172
DI16X182 1U2	1.2	100	90	0.500	165
DI16X182 1U5	1.5	100	75	0.520	155
DI16X182 1U8	1.8	100	60	0.530	150
DI16X182 2U2	2.2	100	50	0.540	140
DI16X182 2U7	2.7	100	43	0.550	135
DI16X182 3U3	3.3	100	38	0.610	130
DI16X182 3U9	3.9	100	35	1.500	125
DI16X182 4U7	4.7	100	31	1.700	120
DI16X182 5U6	5.6	100	28	1.800	115
DI16X182 6U8	6.8	100	25	2.000	110
DI16X182 8U2	8.2	100	23	2.200	105
DI16X182 10U	10	1	20	2.500	100
DI16X182 11U	10	1	18	2.600	97
DI16X182 12U	12	1	16	2.700	95
DI16X182 15U	15	1	15	2.900	90
DI16X182 18U	18	1	15	3.000	85
DI16X182 22U	22	1	14	3.100	85
DI16X182 27U	27	1	13	3.400	85
DI16X182 33U	33	1	12	3.800	80
DI16X182 39U	39	1	11	4.500	85
DI16X182 47U	47	1	10	6.300	85
DI16X182 56U	56	1	9	7.100	50
DI16X182 68U	68	1	8.5	7.900	50
DI16X182 82U	82	1	7.5	8.700	45
DI16X182 100U	100	1	7	11.570	45
DI16X182 110U	110	1	6.5	13.000	25
DI16X182 150U	150	1	6	15.030	15
DI16X182 180U	180	1	5.5	16.600	13
DI16X182 210U	210	1	5	23.000	12
DI16X182 270U	270	1	4	29.700	11
DI16X182 330U	330	1	3.5	43.060	10
DI16X182 470U	470	1	3	53.500	8
DI16X182 820U	820	1	2.5	66.100	5

#### DI25X15

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI25X152 1U	1	100	103	0.060	1480
DI25X152 1U4	1.4	100	103	0.079	1380
DI25X152 1U8	1.8	100	103	0.101	1310
DI25X152 2U2	2.2	100	100	0.125	1250
DI25X152 3U3	3.3	100	100	0.160	1080
DI25X152 4U7	4.7	100	100	0.236	980
DI25X152 5U6	5.6	100	100	0.287	900
DI25X152 6U8	6.8	100	90	0.371	790
DI25X152 8U2	8.2	100	75	0.471	720
DI25X152 10U	10	100	60	0.576	660
DI25X152 12U	12	100	50	0.684	590
DI25X152 15U	15	100	43	0.888	540
DI25X152 18U	18	100	38	1.087	480
DI25X152 22U	22	100	35	1.343	430
DI25X152 33U	33	100	31	2.245	350
DI25X152 47U	47	100	28	3.064	290
DI25X152 56U	56	100	25	4.120	270
DI25X152 68U	68	100	23	5.289	240
DI25X152 82U	82	100	20	7.223	200
DI25X152 100U	100	1	18	8.209	190
DI25X152 120U	120	1	16	10.890	170
DI25X152 150U	150	1	15	12.570	160
DI25X152 180U	180	1	15	19.650	140
DI25X152 220U	220	1	14	22.310	130
DI25X152 270U	270	1	13	24.610	120
DI25X152 330U	330	1	12	28.210	110
DI25X152 390U	390	1	11	32.190	100
DI25X152 470U	470	1	10	48.750	90
DI25X152 560U	560	1	9	53.890	80
DI25X152 680U	680	1	8.5	63.010	70

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#### DI25X20

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI25X20□100N	0.1	100	200	0.250	700
DI25X20□180N	0.18	100	200	0.250	650
DI25X20□270N	0.27	100	200	0.250	600
DI25X20□330N	0.33	100	200	0.250	550
DI25X20□390N	0.39	100	200	0.250	530
DI25X20□560N	0.56	100	160	0.250	530
DI25X20□680N	0.68	100	160	0.250	470
DI25X20□820N	0.82	100	120	0.250	450
DI25X20□1U	1	100	100	0.500	445
DI25X20□1U2	1.2	100	100	0.600	425
DI25X20□1U5	1.5	100	75	0.600	400
DI25X20□1U8	1.8	100	60	0.700	390
DI25X20□2U2	2.2	100	50	0.800	370
DI25X20□2U7	2.7	100	43	0.900	320
DI25X20□3U3	3.3	100	38	1.000	300
DI25X20□3U3	3.9	100	35	1.100	290
DI25X20□4U7	4.7	100	31	1.200	270
DI25X20□5U6	5.6	100	28	1.300	250
DI25X20□6U8	6.8	100	25	1.500	240
DI25X20□8U2	8.2	100	23	1.600	225
DI25X20□10U	10	1	20	1.800	190
DI25X20□12U	12	1	18	2.000	180
DI25X20□15U	15	1	16	2.200	170
DI25X20□18U	18	1	15	2.500	160
DI25X20□22U	22	1	14	2.800	150
DI25X20□27U	27	1	13	3.100	125
DI25X20□33U	33	1	12	3.500	115
DI25X20□39U	39	1	11	3.900	110
DI25X20□47U	47	1	11	4.300	100
DI25X20□56U	56	1	10	4.900	85
DI25X20□68U	68	1	9	5.500	80
DI25X20□82U	82	1	8.5	6.200	80
DI25X20□100U	100	1	8	7.000	80
DI25X20□120U	120	1	7.5	8.000	75
DI25X20□150U	150	1	7	9.300	70
DI25X20□180U	180	1	6	10.200	65
DI25X20□220U	220	1	5.5	11.800	65
DI25X20□270U	270	1	5	12.500	65
DI25X20□330U	330	1	5	13.000	65
DI25X20□390U	390	1	5	22.000	50
DI25X20□470U	470	1	5	25.000	45
DI25X20□560U	560	1	5	28.000	40
DI25X20□680U	680	1	5	30.000	35
DI25X20□1M	1000	1	5	39.200	30

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10  $\mu$  H ~ 10000  $\mu$  H @ 1KHz / 0.25V

#### DI32X26

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI32X262 1U	1	100	120	0.200	500
DI32X262 1U2	1.2	100	100	0.200	500
DI32X262 1U5	1.5	100	85	0.300	500
DI32X262 1U8	1.8	100	75	0.300	500
DI32X262 2U2	2.2	100	62	0.300	500
DI32X262 2U7	2.7	100	53	0.320	500
DI32X262 3U3	3.3	100	47	0.350	500
DI32X262 3U9	3.9	100	41	0.380	500
DI32X262 4U7	4.7	100	33	0.400	500
DI32X262 5U6	5.6	100	33	0.470	500
DI32X262 6U8	6.8	100	31	0.500	450
DI32X262 8U2	8.2	100	27	0.560	450
DI32X262 10U	10	1	23	0.560	400
DI32X262 12U	12	1	21	0.620	380
DI32X262 13U	13	1	20	0.680	370
DI32X262 15U	15	1	19	0.730	360
DI32X262 18U	18	1	17	0.820	340
DI32X262 22U	22	1	15	0.940	320
DI32X262 27U	27	1	10	1.100	300
DI32X262 33U	33	1	12	1.200	270
DI32X262 39U	39	1	11	1.400	240
DI32X262 47U	47	1	10	1.500	220
DI32X262 56U	56	1	9.3	1.700	200
DI32X262 68U	68	1	8.4	1.900	180
DI32X262 82U	82	1	7.5	2.200	170
DI32X262 100U	100	1	6.2	2.500	160
DI32X262 120U	120	1	5.5	3.000	150
DI32X262 180U	180	1	5	4.500	120
DI32X262 220U	220	1	4.5	5.400	110
DI32X262 270U	270	1	4	6.800	100
DI32X262 330U	330	1	3.6	8.200	95
DI32X262 390U	390	1	3.3	9.700	90
DI32X262 470U	470	1	2.7	11.800	80
DI32X262 560U	560	1	2.5	14.500	70
DI32X262 680U	680	1	2.2	17.000	65
DI32X262 820U	820	1	2	20.500	60
DI32X262 1M	1000	1	1.8	25.000	50
DI32X262 1M2	1200	1	1.6	30.000	45
DI32X262 1M5	1500	1	1.5	37.000	40
DI32X262 1M8	1800	1	1.3	45.000	35
DI32X262 2M2	2200	1	1.2	50.000	30
DI32X262 10M	10000	1	1.1	285.000	15

#### DI50X50

Part Number	Inductance ( $\mu$ H)	Test Frequency (KHz)	SRF (MHz) min.	RDC ( $\Omega$ ) max.	IDC (mA) max.
DI50X501 120N	0.12	100	450	0.010	6000
DI50X501 270N	0.27	100	300	0.014	5300
DI50X501 470N	0.47	100	200	0.018	4800
DI50X501 1U	1	100	150	0.027	4000
DI50X501 1U5	1.5	100	110	0.031	3700
DI50X501 2U2	2.2	100	80	0.041	3200
DI50X501 3U3	3.3	100	40	0.050	2900
DI50X501 4U7	4.7	100	30	0.057	2700
DI50X501 6U8	6.8	100	25	0.100	2000
DI50X501 10U	10	1	20	0.130	1700
DI50X501 12U	12	1	18	0.200	1500
DI50X501 15U	15	1	17	0.210	1400
DI50X501 22U	22	1	15	0.270	1200
DI50X501 24U	24	1	14	0.290	1100
DI50X501 27U	27	1	13.5	0.300	1000
DI50X501 33U	33	1	12	0.450	900
DI50X501 47U	47	1	10	0.560	800
DI50X501 68U	68	1	7.6	0.940	640
DI50X501 100U	100	1	6.5	1.200	560
DI50X501 150U	150	1	5	2.660	420
DI50X501 220U	220	1	4	3.360	320
DI50X501 330U	330	1	3.1	6.160	270
DI50X501 470U	470	1	2.4	7.560	240
DI50X501 680U	680	1	1.9	11.300	190
DI50X501 1M	1000	1	1.7	14.400	150
DI50X501 1M2	1200	1	0.95	18.000	120
DI50X501 1M5	1500	1	0.8	30.100	100
DI50X501 2M2	2200	1	0.75	45.000	90
DI50X501 2M4	2400	1	0.65	47.000	85
DI50X501 3M3	3300	1	0.7	50.000	80
DI50X501 4M7	4700	1	0.55	61.000	70
DI50X501 6M8	6800	1	0.45	100.000	60
DI50X501 8M2	8200	1	0.4	125.000	50
DI50X501 10M	10000	1	0.35	140.000	50