

FEATURES

- Low profile very effective in space-applications.
- High energy storage and very low resistance.
- Packed in embossed carrier tape and can be used by automatic mounting machine.



APPLICATIONS

- VGA display card, Notebook Computer, PDA,
- Step-up and step-down converters, Flash Memory, etc.

PRODUCT IDENTIFICATION

DS 3316 – 100 M – T
a b c d e

a : Series name

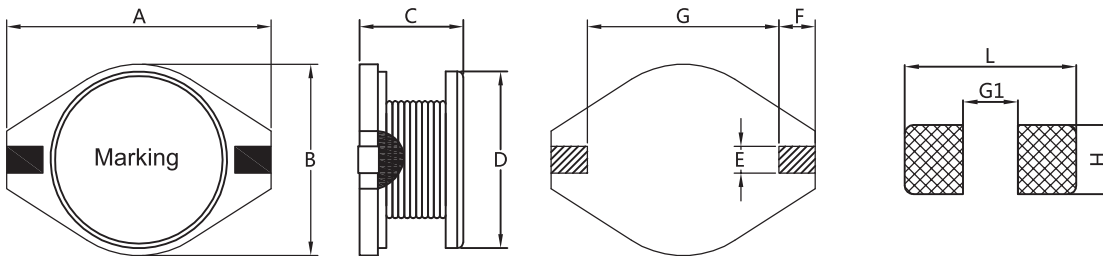
b : Product dimensions

c : Inductance Value (1R0:1.0uH; 100: 10uH; 101:100uH)

d : Inductance Tolerance (K:10% ; M:20% ; N:30%)

e : Packaging style (T: Taping; B: bulk)

SHAPES AND DIMENSIONS Unit: mm



Series	Dimensions(mm)									
	A	B	C	D	E	F	G	L	G1	H
DS1608	6.60 Max.	4.45 Max.	2.92 Max.	3.94	1.27	1.02	4.32	6.9	4.0	1.5
DS3308	12.95 Max.	9.40 Max.	3.50 Max.	8.38	2.54	2.54	7.62	13.5	7.3	3.0
DS3316	12.95 Max.	9.40 Max.	5.21 Max.	8.38	2.54	2.54	7.62	13.5	7.3	3.0
DS3340	12.95 Max.	9.40 Max.	11.43 Max.	8.38	2.54	2.54	7.62	13.5	7.3	3.0
DS5022	18.54 Max.	15.24 Max.	7.11 Max.	12.7	2.54	2.54	12.7	20.1	10.3	3.0

ELECTRICAL CHARACTERISTICS

Part Number	L(μH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)	SRF Min.(MHZ)
DS1608-1R0MT	1.0	100	0.050	2.90	2.90	130.0
DS1608-1R5MT	1.5	100	0.050	2.60	2.80	115.0
DS1608-2R2MT	2.2	100	0.070	2.30	2.40	90.0
DS1608-3R3MT	3.3	100	0.080	2.00	2.00	70.0
DS1608-4R7MT	4.7	100	0.090	1.50	1.50	50.0
DS1608-6R8MT	6.8	100	0.130	1.20	1.40	45.0
DS1608-100MT	10	100	0.160	1.10	1.30	35.0
DS1608-150MT	15	100	0.230	0.90	1.20	30.0
DS1608-220MT	22	100	0.370	0.70	0.80	20.0
DS1608-330MT	33	100	0.510	0.58	0.60	15.0
DS1608-470MT	47	100	0.640	0.50	0.50	14.0
DS1608-680MT	68	100	0.860	0.40	0.40	11.0
DS1608-101MT	100	100	1.270	0.31	0.30	9.0
DS1608-151MT	150	100	2.000	0.27	0.25	6.0
DS1608-221MT	220	100	3.110	0.22	0.20	5.5
DS1608-331MT	330	100	3.800	0.18	0.16	5.0
DS1608-471MT	470	100	6.200	0.16	0.15	4.0
DS1608-681MT	680	100	9.200	0.14	0.12	3.0
DS1608-102MT	1000	100	13.800	0.10	0.07	2.0

Part Number	L(μH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)	SRF Min.(MHZ)
DS3308-100MT	10	100	0.110	2.40	2.00	35.0
DS3308-150MT	15	100	0.150	2.00	1.50	33.0
DS3308-220MT	22	100	0.230	1.60	1.30	25.0
DS3308-330MT	33	100	0.300	1.40	1.10	19.0
DS3308-470MT	47	100	0.390	1.00	0.80	14.0
DS3308-680MT	68	100	0.660	0.90	0.70	12.0
DS3308-101MT	100	100	0.840	0.70	0.60	10.0
DS3308-151MT	150	100	1.200	0.60	0.50	8.0
DS3308-221MT	220	100	1.900	0.50	0.40	6.0
DS3308-331MT	330	100	2.700	0.40	0.30	5.0
DS3308-471MT	470	100	4.000	0.30	0.20	4.0
DS3308-681MT	680	100	5.300	0.20	0.10	3.0
DS3308-102MT	1000	100	8.400	0.10	0.05	2.5

Note:

Isat: DC current at which the inductance drops 10% from its value without current.

Irms: DC current that causes the temperature rise ($\Delta T = 40^{\circ}\text{C}$) from 20°C ambient

ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)	SRF Min.(MHZ)
DS3316-1R0MT	1.0	100	0.009	9.00	6.80	100.0
DS3316-1R5MT	1.5	100	0.010	8.00	6.40	90.0
DS3316-2R2MT	2.2	100	0.012	7.00	6.10	80.0
DS3316-3R3MT	3.3	100	0.015	6.40	5.40	65.0
DS3316-4R7MT	4.7	100	0.018	5.40	4.80	45.0
DS3316-6R8MT	6.8	100	0.027	4.60	4.40	38.0
DS3316-100MT	10	100	0.038	3.80	3.90	30.0
DS3316-150MT	15	100	0.046	3.00	3.10	27.0
DS3316-220MT	22	100	0.085	2.60	2.70	19.0
DS3316-330MT	33	100	0.100	2.00	2.10	15.0
DS3316-470MT	47	100	0.140	1.60	1.80	12.0
DS3316-680MT	68	100	0.200	1.40	1.50	10.0
DS3316-101MT	100	100	0.280	1.20	1.30	9.0
DS3316-151MT	150	100	0.400	1.00	1.00	6.0
DS3316-221MT	220	100	0.610	0.80	0.80	5.0
DS3316-331MT	330	100	1.020	0.60	0.60	4.5
DS3316-471MT	470	100	1.270	0.50	0.50	3.5
DS3316-681MT	680	100	2.020	0.40	0.40	2.5
DS3316-102MT	1000	100	3.000	0.30	0.30	2.0

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)	SRF(MHZ)
DS3340-100MT	10	100	0.040	8.00	3.50	22.0
DS3340-150MT	15	100	0.050	7.00	3.00	18.0
DS3340-220MT	22	100	0.066	5.50	2.50	11.0
DS3340-330MT	33	100	0.080	4.00	2.00	9.0
DS3340-470MT	47	100	0.110	3.80	1.60	8.0
DS3340-680MT	68	100	0.170	3.00	1.20	7.0
DS3340-101MT	100	100	0.220	2.50	1.00	5.5
DS3340-151MT	150	100	0.340	2.00	0.90	4.0
DS3340-221MT	220	100	0.440	1.60	0.70	3.5
DS3340-331MT	330	100	0.700	1.20	0.60	2.5
DS3340-471MT	470	100	0.950	1.10	0.30	2.0
DS3340-681MT	680	100	1.200	1.00	0.20	2.0
DS3340-102MT	1000	100	2.000	0.80	0.10	1.5

Note:

Isat: DC current at which the inductance drops 10% from its value without current.

Irms: DC current that causes the temperature rise ($\Delta T = 40^{\circ}\text{C}$) from 20°C ambient

ELECTRICAL CHARACTERISTICS

Part Number	L(uH)	Test Freq.(KHz)	DCR max.(Ω)	Isat.(A)	Irms.(A)	SRF(MHZ)
DS5022-1R0MT	1.0	100	0.009	20.00	8.60	80.0
DS5022-2R2MT	2.2	100	0.014	16.00	7.10	80.0
DS5022-3R3MT	3.3	100	0.018	14.00	6.20	60.0
DS5022-5R6MT	5.6	100	0.020	12.00	5.30	40.0
DS5022-100MT	10	100	0.031	10.00	4.30	30.0
DS5022-150MT	15	100	0.036	8.00	4.00	22.0
DS5022-220MT	22	100	0.047	7.00	3.50	20.0
DS5022-330MT	33	100	0.066	5.50	3.00	15.0
DS5022-470MT	47	100	0.086	4.50	2.60	9.0
DS5022-680MT	68	100	0.130	3.50	2.30	8.0
DS5022-101MT	100	100	0.190	3.00	1.80	7.0
DS5022-151MT	150	100	0.250	2.60	1.50	6.0
DS5022-221MT	220	100	0.380	2.40	1.20	5.0
DS5022-331MT	330	100	0.560	1.90	1.00	4.0
DS5022-471MT	470	100	0.850	1.40	0.82	3.0
DS5022-681MT	680	100	1.100	1.20	0.72	2.5
DS5022-102MT	1000	100	1.800	1.00	0.56	2.0

Note:

Isat: DC current at which the inductance drops 10% from its value without current.

Irms: DC current that causes the temperature rise ($\Delta T = 40^{\circ}\text{C}$) from 20°C ambient