

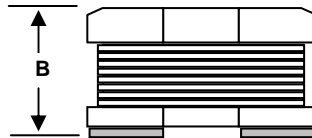
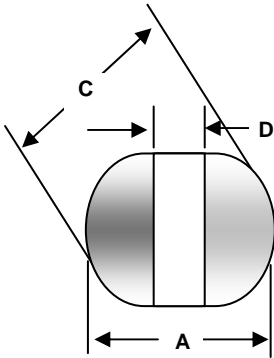


**MSR
Electronics**

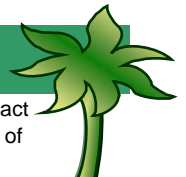


SMD POWER INDUCTORS

MDR SERIES (Non Sheilded)



RoHS

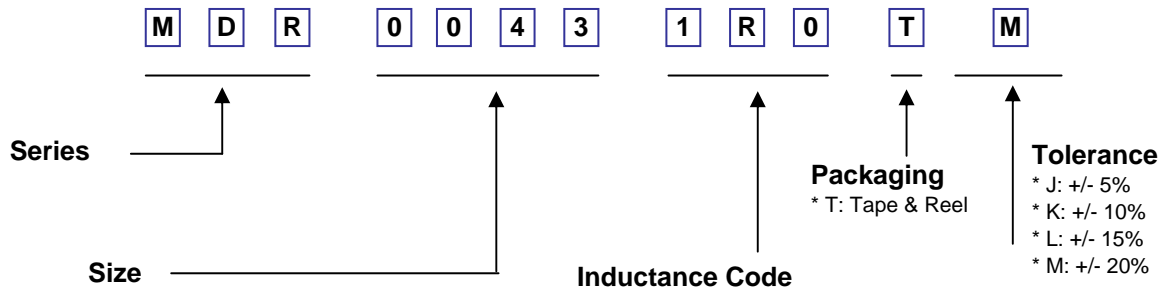


Compliant: Contact
Factory for Copy of
Test Report

FEATURES:

- Temp Rise: 40 °C Max @ I_{dc}
- Storage Temp: -40 to +100 °C
- Operating Temp: -25 to +85 °C
- Solder Heat Resistance: 260 °C @ 10 seconds
- Dimensions (mm)

PART NUMBER SYSTEM



Part Number	Inductance L(uH)	DC Resistance (Ohms)	DC Current (Amps)	Dimensions (mm)			
				A +/- 0.3	B +/- 0.3	C +/- 0.3	D Typ
MDR-0043-1R0TX	1.0	0.033	3.80	4.0	3.2	4.50	1.5
MDR-0043-1R4TX	1.4	0.038	3.30	4.0	3.2	4.50	1.5
MDR-0043-1R8TX	1.8	0.042	2.91	4.0	3.2	4.50	1.5
MDR-0043-2R2TX	2.2	0.047	2.60	4.0	3.2	4.50	1.5
MDR-0043-2R7TX	2.7	0.052	2.43	4.0	3.2	4.50	1.5
MDR-0043-3R3TX	3.3	0.058	2.15	4.0	3.2	4.50	1.5
MDR-0043-3R9TX	3.9	0.076	1.98	4.0	3.2	4.50	1.5
MDR-0043-4R7TX	4.7	0.094	1.70	4.0	3.2	4.50	1.5
MDR-0043-5R6TX	5.6	0.101	1.60	4.0	3.2	4.50	1.5
MDR-0043-6R8TX	6.8	0.117	1.41	4.0	3.2	4.50	1.5
MDR-0043-8R2TX	8.2	0.132	1.26	4.0	3.2	4.50	1.5
MDR-0043-100TX	10	0.182	1.15	4.0	3.2	4.50	1.5
MDR-0043-120TX	12	0.210	1.05	4.0	3.2	4.50	1.5

Part Number	Inductance L(uH)	DC Resistance (Ohms)	DC Current (Amps)	Dimensions (mm)			
				A +/- 0.3	B +/- 0.3	C +/- 0.3	D Typ
MDR-0043-150TX	15	0.235	1.00	4.0	3.2	4.50	1.5
MDR-0043-180TX	18	0.338	0.90	4.0	3.2	4.50	1.5
MDR-0043-220TX	22	0.378	0.80	4.0	3.2	4.50	1.5
MDR-0043-270TX	27	0.522	0.75	4.0	3.2	4.50	1.5
MDR-0043-330TX	33	0.540	0.70	4.0	3.2	4.50	1.5
MDR-0043-390TX	39	0.587	0.65	4.0	3.2	4.50	1.5
MDR-0043-470TX	47	0.844	0.60	4.0	3.2	4.50	1.5
MDR-0043-560TX	56	0.937	0.55	4.0	3.2	4.50	1.5
MDR-0043-680TX	68	1.117	0.50	4.0	3.2	4.50	1.5
MDR-0054-100TX	10	0.100	1.44	5.2	4.5	5.8	1.7
MDR-0054-120TX	12	0.120	1.40	5.2	4.5	5.8	1.7
MDR-0054-150TX	15	0.140	1.30	5.2	4.5	5.8	1.7
MDR-0054-180TX	18	0.150	1.23	5.2	4.5	5.8	1.7
MDR-0054-220TX	22	0.180	1.11	5.2	4.5	5.8	1.7
MDR-0054-270TX	27	0.200	0.97	5.2	4.5	5.8	1.7
MDR-0054-330TX	33	0.230	0.88	5.2	4.5	5.8	1.7
MDR-0054-390TX	39	0.320	0.80	5.2	4.5	5.8	1.7
MDR-0054-470TX	47	0.370	0.72	5.2	4.5	5.8	1.7
MDR-0054-560TX	56	0.420	0.68	5.2	4.5	5.8	1.7
MDR-0054-680TX	68	0.460	0.61	5.2	4.5	5.8	1.7
MDR-0054-820TX	82	0.600	0.58	5.2	4.5	5.8	1.7
MDR-0054-101TX	100	0.700	0.52	5.2	4.5	5.8	1.7
MDR-0054-121TX	120	0.930	0.48	5.2	4.5	5.8	1.7
MDR-0054-151TX	150	1.100	0.40	5.2	4.5	5.8	1.7
MDR-0054-181TX	180	1.380	0.38	5.2	4.5	5.8	1.7
MDR-0054-221TX	220	1.570	0.35	5.2	4.5	5.8	1.7
MDR-0073-100TX	10	0.080	1.44	7.0	3.5	7.8	2.0
MDR-0073-120TX	12	0.090	1.39	7.0	3.5	7.8	2.0
MDR-0073-150TX	15	0.104	1.24	7.0	3.5	7.8	2.0
MDR-0073-180TX	18	0.111	1.12	7.0	3.5	7.8	2.0
MDR-0073-220TX	22	0.129	1.07	7.0	3.5	7.8	2.0
MDR-0073-270TX	27	0.153	0.97	7.0	3.5	7.8	2.0
MDR-0073-330TX	33	0.170	0.85	7.0	3.5	7.8	2.0
MDR-0073-390TX	39	0.217	0.74	7.0	3.5	7.8	2.0
MDR-0073-470TX	47	0.252	0.68	7.0	3.5	7.8	2.0
MDR-0073-560TX	56	0.282	0.64	7.0	3.5	7.8	2.0
MDR-0073-680TX	68	0.332	0.59	7.0	3.5	7.8	2.0
MDR-0073-820TX	82	0.406	0.54	7.0	3.5	7.8	2.0
MDR-0073-101TX	100	0.481	0.51	7.0	3.5	7.8	2.0
MDR-0073-121TX	120	0.536	0.49	7.0	3.5	7.8	2.0
MDR-0073-151TX	150	0.755	0.40	7.0	3.5	7.8	2.0
MDR-0073-181TX	180	1.022	0.36	7.0	3.5	7.8	2.0
MDR-0073-221TX	220	1.200	0.31	7.0	3.5	7.8	2.0
MDR-0073-271TX	270	1.306	0.29	7.0	3.5	7.8	2.0
MDR-0073-331TX	330	1.495	0.28	7.0	3.5	7.8	2.0
MDR-0075-100TX	10	0.07	2.30	7.0	5.0	7.8	2.0
MDR-0075-120TX	12	0.08	2.00	7.0	5.0	7.8	2.0
MDR-0075-150TX	15	0.09	1.80	7.0	5.0	7.8	2.0
MDR-0075-180TX	18	0.10	1.60	7.0	5.0	7.8	2.0
MDR-0075-220TX	22	0.11	1.50	7.0	5.0	7.8	2.0
MDR-0075-270TX	27	0.12	1.30	7.0	5.0	7.8	2.0
MDR-0075-330TX	33	0.13	1.20	7.0	5.0	7.8	2.0

Part Number	Inductance L(uH)	DC Resistance (Ohms)	DC Current (Amps)	Dimensions (mm)			
				A +/- 0.3	B +/- 0.3	C +/- 0.3	D Typ
MDR-0075-390TX	39	0.16	1.10	7.0	5.0	7.8	2.0
MDR-0075-470TX	47	0.18	1.10	7.0	5.0	7.8	2.0
MDR-0075-560TX	56	0.24	0.94	7.0	5.0	7.8	2.0
MDR-0075-680TX	68	0.28	0.85	7.0	5.0	7.8	2.0
MDR-0075-820TX	82	0.37	0.78	7.0	5.0	7.8	2.0
MDR-0075-101TX	100	0.43	0.72	7.0	5.0	7.8	2.0
MDR-0075-121TX	120	0.47	0.66	7.0	5.0	7.8	2.0
MDR-0075-151TX	150	0.64	0.58	7.0	5.0	7.8	2.0
MDR-0075-181TX	180	0.71	0.51	7.0	5.0	7.8	2.0
MDR-0075-221TX	220	0.96	0.49	7.0	5.0	7.8	2.0
MDR-0075-271TX	270	1.11	0.42	7.0	5.0	7.8	2.0
MDR-0075-331TX	330	1.26	0.40	7.0	5.0	7.8	2.0
MDR-0075-391TX	390	1.77	0.36	7.0	5.0	7.8	2.0
MDR-0075-471TX	470	1.96	0.34	7.0	5.0	7.8	2.0
MDR-0104-100TX	10	0.053	2.38	7.0	5.0	7.8	2.5
MDR-0104-120TX	12	0.061	2.13	7.0	5.0	7.8	2.5
MDR-0104-150TX	15	0.070	1.87	7.0	5.0	7.8	2.5
MDR-0104-180TX	18	0.081	1.73	7.0	5.0	7.8	2.5
MDR-0104-220TX	22	0.088	1.60	7.0	5.0	7.8	2.5
MDR-0104-270TX	27	0.100	1.44	7.0	5.0	7.8	2.5
MDR-0104-330TX	33	0.120	1.26	7.0	5.0	7.8	2.5
MDR-0104-390TX	39	0.151	1.20	7.0	5.0	7.8	2.5
MDR-0104-470TX	47	0.170	1.10	7.0	5.0	7.8	2.5
MDR-0104-560TX	56	0.199	1.01	9.0	4.0	10.0	2.5
MDR-0104-680TX	68	0.223	0.91	9.0	4.0	10.0	2.5
MDR-0104-820TX	82	0.252	0.85	9.0	4.0	10.0	2.5
MDR-0104-101TX	100	0.344	0.74	9.0	4.0	10.0	2.5
MDR-0104-121TX	120	0.396	0.69	9.0	4.0	10.0	2.5
MDR-0104-151TX	150	0.544	0.61	9.0	4.0	10.0	2.5
MDR-0104-181TX	180	0.621	0.56	9.0	4.0	10.0	2.5
MDR-0104-221TX	220	0.721	0.53	9.0	4.0	10.0	2.5
MDR-0104-271TX	270	0.949	0.45	9.0	4.0	10.0	2.5
MDR-0104-331TX	330	1.100	0.42	9.0	4.0	10.0	2.5
MDR-0104-391TX	390	1.245	0.38	9.0	4.0	10.0	2.5
MDR-0104-471TX	470	1.526	0.35	9.0	4.0	10.0	2.5
MDR-0104-561TX	560	1.904	0.32	9.0	4.0	10.0	2.5
MDR-0105-100TX	10	0.06	2.60	9.0	5.4	10.0	2.5
MDR-0105-120TX	12	0.07	2.45	9.0	5.4	10.0	2.5
MDR-0105-150TX	15	0.08	2.27	9.0	5.4	10.0	2.5
MDR-0105-180TX	18	0.09	2.15	9.0	5.4	10.0	2.5
MDR-0105-220TX	22	0.10	1.95	9.0	5.4	10.0	2.5
MDR-0105-270TX	27	0.11	1.76	9.0	5.4	10.0	2.5
MDR-0105-330TX	33	0.12	1.50	9.0	5.4	10.0	2.5
MDR-0105-390TX	39	0.14	1.37	9.0	5.4	10.0	2.5
MDR-0105-470TX	47	0.17	1.28	9.0	5.4	10.0	2.5
MDR-0105-560TX	56	0.19	1.17	9.0	5.4	10.0	2.5
MDR-0105-680TX	68	0.22	1.11	9.0	5.4	10.0	2.5
MDR-0105-820TM	82	0.25	1.00	9.0	5.4	10.0	2.5
MDR-0105-101TM	100	0.35	0.97	9.0	5.4	10.0	2.5
MDR-0105-121TM	120	0.40	0.89	9.0	5.4	10.0	2.5
MDR-0105-151TM	150	0.47	0.78	9.0	5.4	10.0	2.5
MDR-0105-181TM	180	0.63	0.72	9.0	5.4	10.0	2.5

Part Number	Inductance L(uH)	DC Resistance (Ohms)	DC Current (Amps)	Dimensions (mm)			
				A +/- 0.3	B +/- 0.3	C +/- 0.3	D Typ
MDR-0105-221TX	220	0.700	0.65	9.0	5.4	10.0	2.5
MDR-0105-271TX	270	0.900	0.55	9.0	5.4	10.0	2.5
MDR-0105-331TX	330	1.150	0.50	9.0	5.4	10.0	2.5
MDR-0105-391TX	390	1.300	0.45	9.0	5.4	10.0	2.5
MDR-0105-471TX	470	1.600	0.40	9.0	5.4	10.0	2.5
MDR-0105-561TX	560	1.800	0.37	9.0	5.4	10.0	2.5
MDR-0105-681TX	680	2.000	0.35	9.0	5.4	10.0	2.5
MDR-0105-821TX	820	2.300	0.30	9.0	5.4	10.0	2.5

GENERAL PARAMETERS

SOLDER PAD LAYOUT

NOTE:
 Measuring Test Frequency:
 1.0 uH - 8.2 uH: 7.96MHz @ 1V
 10 uH - 82 uH: 2.52MHz @ 1V
 100 uH - 820 uH: 1KHz @ 1V

	"E"	"F"	"G"	"H"	"I"	"J"	QTY/Reel
MDR-0043	4.5 mm	1.5 mm	1.75 mm	12 mm	8 mm	5 mm	2000
MDR-0054	5.5 mm	1.7 mm	2.15 mm	12 mm	8 mm	6 mm	1500
MDR-0073	7.5 mm	2.0 mm	3.00 mm	16 mm	12 mm	5 mm	1000
MDR-0075	7.5 mm	2.0 mm	3.00 mm	16 mm	12 mm	7 mm	1000
MDR-0104	9.5 mm	2.5 mm	3.75 mm	24 mm	12 mm	6 mm	500
MDR-0105	9.5 mm	2.5 mm	3.75 mm	24 mm	12 mm	7 mm	500

PACKAGING

SCHEMATIC