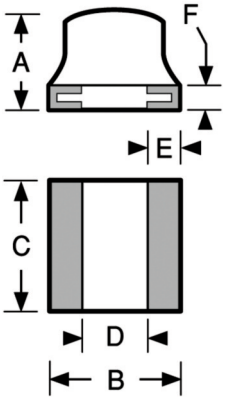
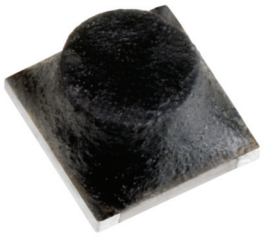
SERIES 103R 103

RoHS Compliant

MILITARY QPL APPROVED

Micro i® Chip Inductors





Actual Size

Military Specifications MIL-PRF-83446/04

Physical Parameters

	Inches	Millimeters
A	0.075 Max.	1.91 Max.
B	0.100 ± 0.010	2.54 ± 0.25
C	0.100 ± 0.010	2.54 ± 0.25
D	0.050 Min.	1.27 Min.
E	0.015 Min. (Typ.)	0.38 Min. (Typ.)
F	0.020 Max. (Typ.)	0.51 Max. (Typ.)

Weight Max. (Grams) 0.03

Current Rating at 90°C Ambient 35°C Rise

Operating Temperature Range –55°C to +125°C

Maximum Power Dissipation at 90°C 0.135 Watts

****Note**
Self Resonant Frequency (SRF) Values above 250 MHz are calculated and for reference only.

Termination Finish Options (Part # Code)
Gold over Nickel (Standard): As shown.
Tin/Lead over Nickel: Add suffix "S" to part # (e.g., 103-102KS).
Mil type "A:" Gold over Nickel (Standard)
Mil type "B" or "F:" Tin/Lead (solder) over Nickel.
RoHS type: Order 103R - XXXKS

Mechanical Configuration
Units are epoxy encapsulated.
Contact areas for reflow soldering are gold plated per MIL-G-45204 Type 1-Grade A. Internal connections are thermal compression bonded.

Packaging Tape & reel (8mm): 7" reel, 2000 pieces max.; 13" reel, 8000 pieces max.

Made In the U.S.A.

DASH NUMBER*	MIL DASH #	INDUCTANCE (µH) (see Note 3)	TOLERANCE	Q MINIMUM	TEST FREQUENCY (MHz)	SRF MINIMUM (MHz)**	DC RESISTANCE MAXIMUM (OHMS)	CURRENT RATING MAXIMUM (mA)
M83446/04– SERIES 103 PHENOLIC CORE								
-100M/K	30/37	0.010	± 20% / ± 10%	60	50.0	2700	0.060	1270
-120K	38	0.012	± 10%	57	50.0	2450	0.069	1190
-150M/K	31/39	0.015	± 20% / ± 10%	55	50.0	2200	0.078	1110
-180K	40	0.018	± 10%	52	50.0	2000	0.093	1030
-220M/K	32/41	0.022	± 20% / ± 10%	50	50.0	1800	0.108	950
-270K	42	0.027	± 10%	49	50.0	1625	0.114	925
-330M/K	33/43	0.033	± 20% / ± 10%	48	50.0	1450	0.120	900
-390K	44	0.039	± 10%	45	50.0	1335	0.133	860
-470M/K	34/45	0.047	± 20% / ± 10%	42	50.0	1220	0.145	820
-560K	46	0.056	± 10%	39	50.0	1110	0.170	760
-680M/K	35/47	0.068	± 20% / ± 10%	36	50.0	1000	0.195	705
-820K	48	0.082	± 10%	34	50.0	915	0.212	675
-101M/K	36/49	0.100	± 20% / ± 10%	32	50.0	830	0.230	650
M83446/04– SERIES 103 FERRITE CORE								
-121K	01	0.12	± 10%	30	25.0	750	0.125	880
-151K	02	0.15	± 10%	25	25.0	650	0.175	745
-181K	03	0.18	± 10%	25	25.0	550	0.200	695
-221K	04	0.22	± 10%	25	25.0	450	0.220	665
-271K	05	0.27	± 10%	25	25.0	375	0.230	650
-331K	06	0.33	± 10%	25	25.0	300	0.235	645
-391K	07	0.39	± 10%	22	25.0	235	0.240	635
-471K	08	0.47	± 10%	22	25.0	215	0.260	610
-561K	09	0.56	± 10%	22	25.0	195	0.278	590
-681K	10	0.68	± 10%	22	25.0	175	0.520	435
-821K	11	0.82	± 10%	22	25.0	160	0.530	430
-102K	12	1.0	± 10%	22	25.0	145	0.540	425
-122K	13	1.2	± 10%	22	7.9	130	0.740	360
-152K	14	1.5	± 10%	22	7.9	115	0.840	340
-182K	15	1.8	± 10%	22	7.9	105	0.920	325
-222K	16	2.2	± 10%	22	7.9	85	1.00	310
-272K	17	2.7	± 10%	24	7.9	77	1.15	290
-332K	18	3.3	± 10%	24	7.9	70	1.40	260
-392K	19	3.9	± 10%	24	7.9	68	1.55	250
-472K	20	4.7	± 10%	24	7.9	60	1.80	230
-562K	21	5.6	± 10%	22	7.9	55	2.00	220
-682K	22	6.8	± 10%	22	7.9	50	2.20	210
-822K	23	8.2	± 10%	22	7.9	48	2.50	195
-103K	24	10.0	± 10%	24	7.9	40	3.45	165
-123K	25	12.0	± 10%	25	2.5	35	3.80	160
-153K	26	15.0	± 10%	25	2.5	30	5.60	135
-183K	27	18.0	± 10%	25	2.5	28	5.80	130
-223K	28	22.0	± 10%	25	2.5	25	6.40	125
-273K	29	27.0	± 10%	25	2.5	22	6.90	120

Parts listed above are QPL/MIL qualified

Optional Tolerances: J = 5% H = 3% G = 2% F = 1%

*Complete part # must include series # PLUS the dash #

For surface finish information, refer to www.delevanfinishes.com

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