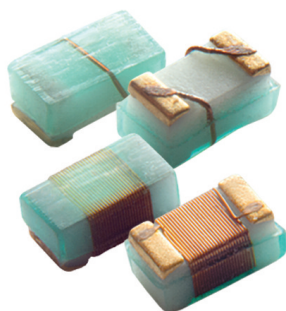
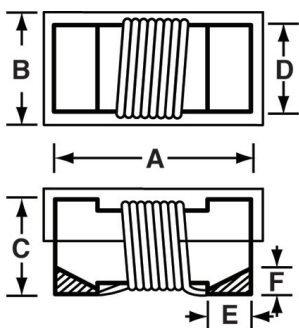


# SERIES M83446/36



## Hi-Rel 0603 Surface Mount Chip Inductors, Open Construction



MIL DASH NUMBER  
INDUCTANCE (nH)  
TEST FREQUENCY (MHz)  
Q MINIMUM  
SRF MINIMUM (MHz)  
DC RESISTANCE MAXIMUM (OHMS)  
CURRENT RATING MAXIMUM (mA)

### Parameters

#### Dimensions

	Inches	Millimeters
A	0.071 Max.	1.80 Max.
B	0.047 Max.	1.19 Max.
C	0.040 Max.	1.02 Max.
D	0.030 (Ref. Only)	0.76 (Ref. Only)
E	0.018 (Ref. Only)	0.44 (Ref. Only)
F	0.008 (Ref. Only)	0.20 (Ref. Only)

- Current Rating at 90°C Ambient** 35°C Rise
- Operating Temperature Range** -55°C to +125°C
- Part Storage Temperature Range** -55°C to +125°C
- Maximum Power Dissipation at 90° C** 0.100 W
- Electrical Characteristics** Measured at +25°C
- DWV** 200 Vrms at Sea Level  
80 Vrms at 70,000 feet altitude
- IR at 100 Vdc** 1000 Mohms Min.
- Weight/Mass** 0.008 Grams Maximum

### Testing

#### MIL-PRF-83446 testing (Each Lot)

##### Group A Subgroup I which includes:

- 1) Thermal Shock, 5 cycles
- 2) Post-Thermal Shock Inductance & Q Testing

##### Group A Subgroup II which includes:

- 1) Visual & Mechanical Inspection
- 2) SRF & DCR Testing

**Vibration** MIL-STD-202, Method 204, Test Condition D

**Shock** MIL-STD-202, Method 213, Test Condition I

**Moisture Resistance** MIL-STD-202, Method 106

**Solderability** MIL-STD-202, Method 208

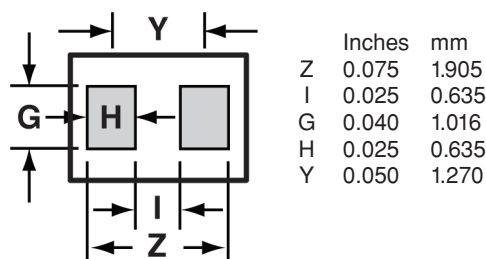
M83446/36 SERIES CERAMIC CORE						
-01	1.8	22	250	6000	0.07	1000
-24	3.3	22	250	6000	0.07	1000
-02	3.6	22	250	6000	0.07	1000
-03	3.9	22	250	6000	0.07	1000
-25	4.3	22	250	6000	0.09	885
-04	4.7	22	250	6000	0.09	885
-26	5.6	22	250	5800	0.10	840
-05	6.8	30	250	5800	0.10	840
-27	8.7	30	250	5200	0.14	705
-06	10	31	250	4800	0.16	665
-07	12	35	250	4000	0.13	735
-08	15	35	250	4000	0.17	645
-28	16	35	250	3400	0.17	645
-09	18	35	250	3100	0.17	645
-10	22	38	250	3000	0.19	610
-11	27	40	250	2800	0.22	565
-12	33	40	250	2300	0.22	565
-13	39	40	250	2200	0.24	540
-14	47	38	200	2000	0.28	500
-15	56	38	200	1900	0.31	475
-16	68	37	200	1700	0.36	440
-17	82	34	150	1700	0.54	360
-18	100	34	150	1400	0.75	305
-19	120	32	150	1300	0.79	300
-20	150	28	150	990	1.14	245
-21	180	25	150	990	1.28	235
-22	220	25	150	700	1.70	200
-23	270	16	25	600	1.78	195

Available in 2%, 5% and 10% tolerance  
Inductance and Q are tested using HP4291A or HP4287A, or equivalent, with text fixture 16193A, or equivalent  
Self Resonant Frequency is tested using HP8753C, or equivalent, with High-Precision TRL-Calibrated test fixture

### Termination

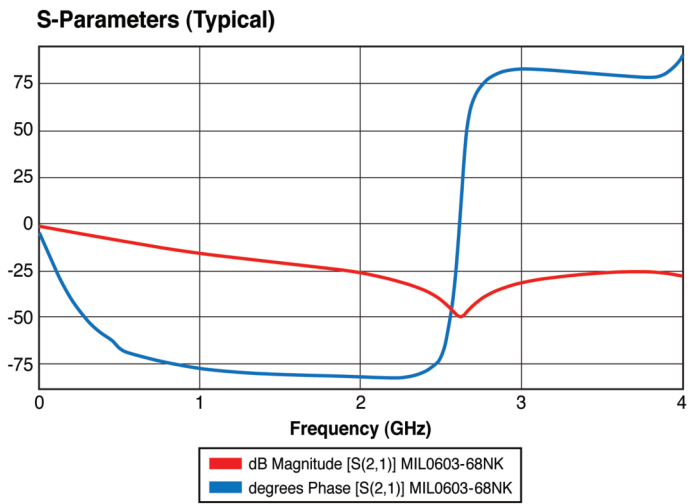
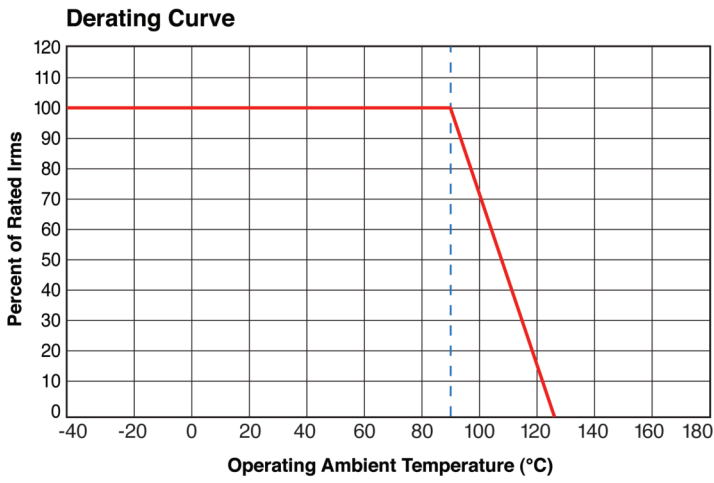
- Terminal Finish** Suffix A: Gold Termination (RoHS compliant)
- Core Material / Termination** Al<sub>2</sub>O<sub>3</sub> Ceramic / Sintered MoMn / Electroplated Ni / Electroplated Au Finish (RoHS Compliant)

### Recommended Landing Pattern



# SERIES M83446/36

Hi-Rel 0603 Surface Mount  
Chip Inductors, Open Construction



## Marking and Packaging

### Package (Reel Marking)

MILITARY P/N  
API Delevan Cage Code  
Date Code/Lot Symbol (YYWWL)  
Example: M83446/36-12AGMT  
99800  
1508A

### Packaging

T = Tape & Reel, 8mm, 4000 pieces max.  
Min. 1, Multiple 1  
W = Waffle Pack, 350 pcs. per pack  
Min. 1, Multiple 1

## How To Order

By QPL / MIL / P/N:

<b>M 8 3 4 4 6 / 3 6 - 0 6</b>	<b>A</b>	<b>G</b>	<b>M</b>	<b>T</b>	
M83446/36 Series	MIL Dash # (per table)	Termination Finish A = Gold over Nickel (solderable/weldable) B = Not Available C = Not Available	Inductance Tolerance G = 2% J = 5% K = 10%	Product Level M = General Purpose Military Applications T = Critical Military Applications	Packaging Option T = Tape & Reel W = Waffle Pack

All product specifications and data contained herein are subject to change without notice to improve reliability, function, performance, design or otherwise.

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