MIV Series

Multilayer Chip Inductor
Size 2012

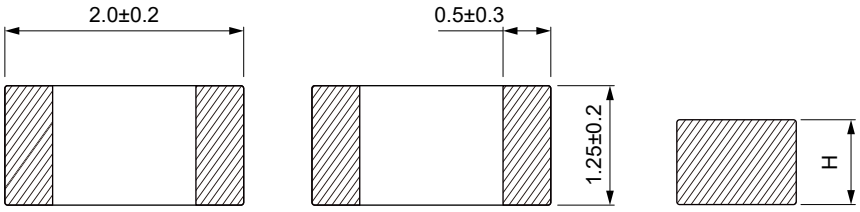
FEATURES

- Monolithic inorganic material construction.
- Closed magnetic circuit avoids crosstalk.
- Shapes and dimensions follow E.I.A. spec and available in various sizes.
- Excellent solder ability and heat resistance.
- AEC-Q200 qualified
- Lead-free reflow soldering as referenced in JEDEC J-STD 020D and RoHS compliant
- Operating Temperature: -55~+125℃ (Including self-temperature)

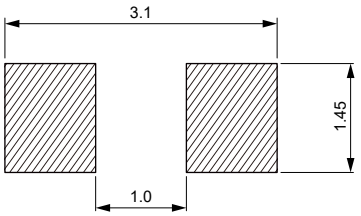
APPLICATION

- Filter switches
- Oscillators
- T- or π-Filter
- Automotive equipment

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

Part No	Inductance (uH)	Tolerance	Q Min.	Test Frequency Q (MHz)	Temperature Rise Current Max. (mA)	DC Resistance Max. (Ω)	SRF Min. (MHz)	thicness H (mm)	Parking (pcs)
MIV2012-47NK	0.047	±10%	15	50	300	0.20	320	0.85±0.2	4000
MIV2012-R10K	0.10	±10%	20	25	250	0.30	235	0.85±0.2	4000
MIV2012-R12K	0.12	±10%	20	25	250	0.30	220	0.85±0.2	4000
MIV2012-R15K	0.15	±10%	20	25	250	0.40	200	0.85±0.2	4000
MIV2012-R18K	0.18	±10%	20	25	250	0.40	185	0.85±0.2	4000
MIV2012-R22K	0.22	±10%	20	25	250	0.50	170	0.85±0.2	4000
MIV2012-R27K	0.27	±10%	20	25	250	0.50	150	0.85±0.2	4000
MIV2012-R33K	0.33	±10%	20	25	250	0.55	145	0.85±0.2	4000
MIV2012-R39K	0.39	±10%	25	25	200	0.65	135	0.85±0.2	4000
MIV2012-R47K	0.47	±10%	25	25	200	0.65	125	1.25±0.2	2000
MIV2012-R56K	0.56	±10%	25	25	150	0.75	115	1.25±0.2	2000
MIV2012-R68K	0.68	±10%	25	25	150	0.80	105	1.25±0.2	2000

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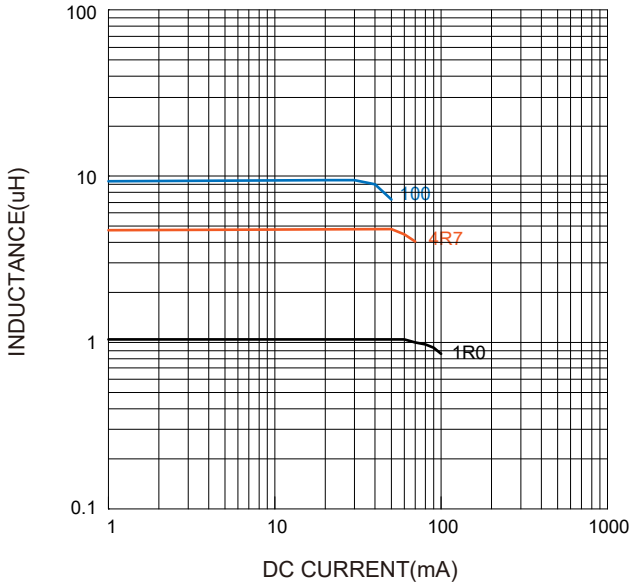
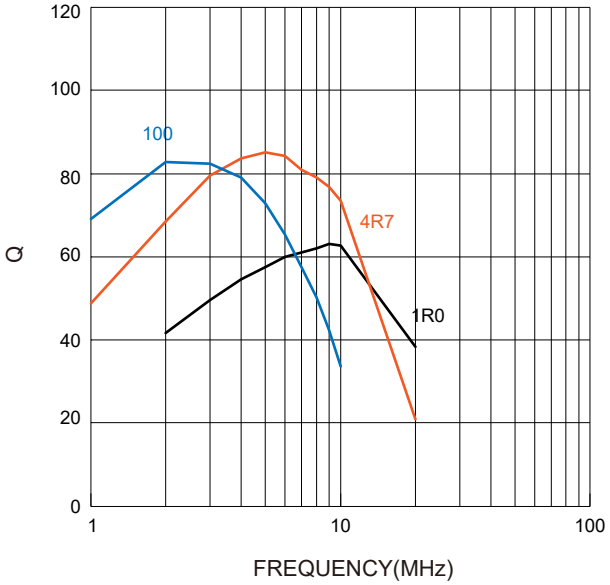
Part No	Inductance (uH)	Tolerance	Q Min.	Test Frequency Q (MHz)	Temperature Rise Current Max. (mA)	DC Resistance Max. (Ω)	SRF Min. (MHz)	thicness H (mm)	Parking (pcs)
MIV2012-1R0K	1.0	±10%	45	10	50	0.40	75	0.85±0.2	4000
MIV2012-1R5K	1.5	±10%	45	10	50	0.50	60	0.85±0.2	4000
MIV2012-1R8K	1.8	±10%	45	10	50	0.60	55	0.85±0.2	4000
MIV2012-2R2K	2.2	±10%	45	10	30	0.65	50	0.85±0.2	4000
MIV2012-2R7K	2.7	±10%	45	10	30	0.75	45	1.25±0.2	2000
MIV2012-3R3K	3.3	±10%	45	10	30	0.80	41	1.25±0.2	2000
MIV2012-4R7K	4.7	±10%	45	10	30	1.00	35	1.25±0.2	2000
MIV2012-100K	10	±10%	45	2	15	1.15	24	1.25±0.2	2000

Typical Electrical Characteristics:

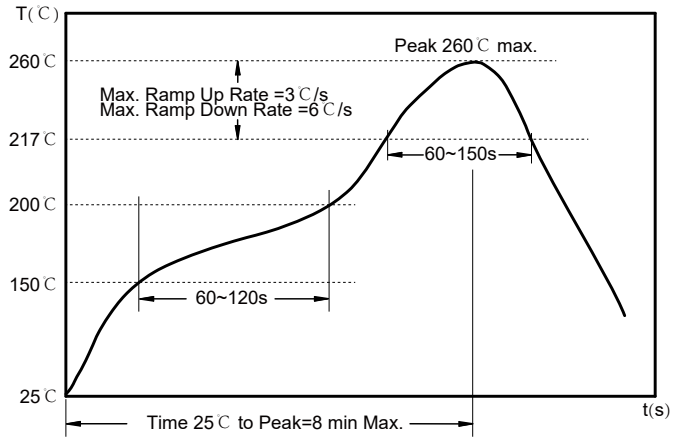
Inductance VS. DC Current Characteristics:



Q VS. Frequency Characteristics:



Soldering Reflow:



Preheat condition: 150 ~200℃/ 60~120 sec.

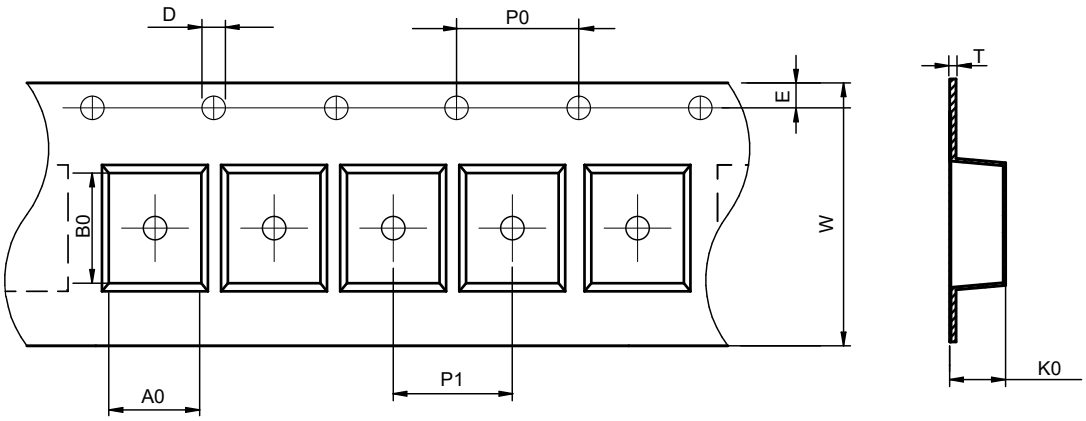
Allowed time above 217℃: 60~150 sec.

Max temperature: 260℃.

Allowed Reflow time: 2x max.

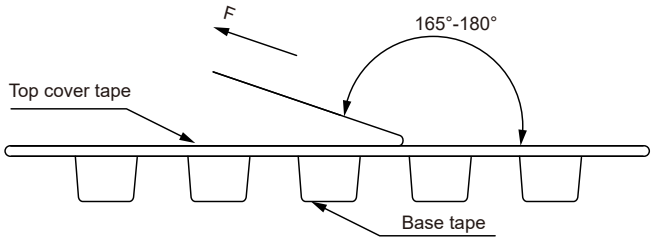
Packaging Information:

Tape Dimension:



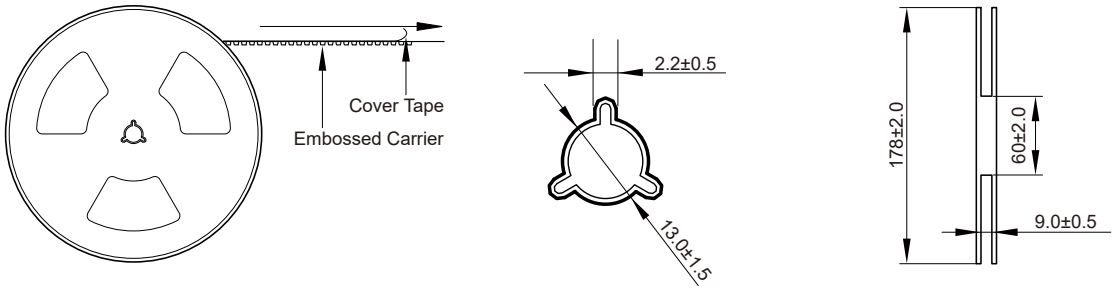
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MIV2012	2.1±0.1	1.3/1.28±0.1	1.5±0.1	4.0±0.1	4.0±0.1	8.0±0.1	0.95/1.28±0.1	1.75±0.1	0.95/0.22±0.05

Peel force of top cover tape:

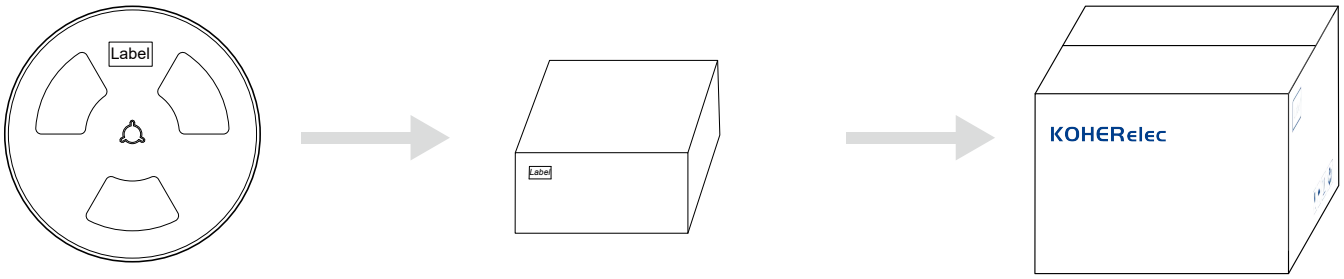


The peel force of top cover tape shall be between 0.15 to 0.58 N

Reel Dimension：[mm]



Packaging Quantity:



2000/4000 Pcs/Reel　　5 Reel /Inner box(10K/20K Pcs)　　8 Inner box/Carton box(80K/160K Pcs)

Cautions and Warnings:

Storage Conditions：

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max).If the storage period elapses, the soldering of the terminal electrodes may deteriorate.The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components.The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does.As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.