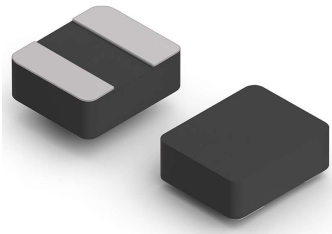
Mini Power-Molded Inductor **AWIM-D Series**



Product features

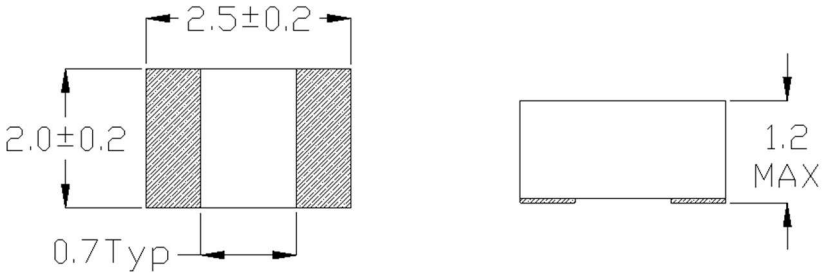
- DC-DC converters for high frequency (>1MHz)
- Soft saturation. Low EMI.
- Flat-Wire Technology-High current, low DCR， high efficiency.
- Current range from 1.05A to 9.6A
- Inductance range from 0.22μH to 10.0μH.
- 100% Lead (Pb)-Free and RoHS compliant.
- Operating temperature -55~+125℃ (Including self - temperature rise)

Applications

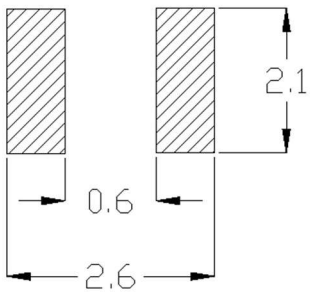
- DC-DC converters for high current/frequencies.
- CPU/RAM/Battery supplies
- High-frequency devices, semiconductor applications.
- Power conversion in Compact Electronics devices.

Mechanical AWIM252012D Series

Dimensions:[mm]



Recommended Land Pattern:[mm]



Specifications AWIM252012D Series

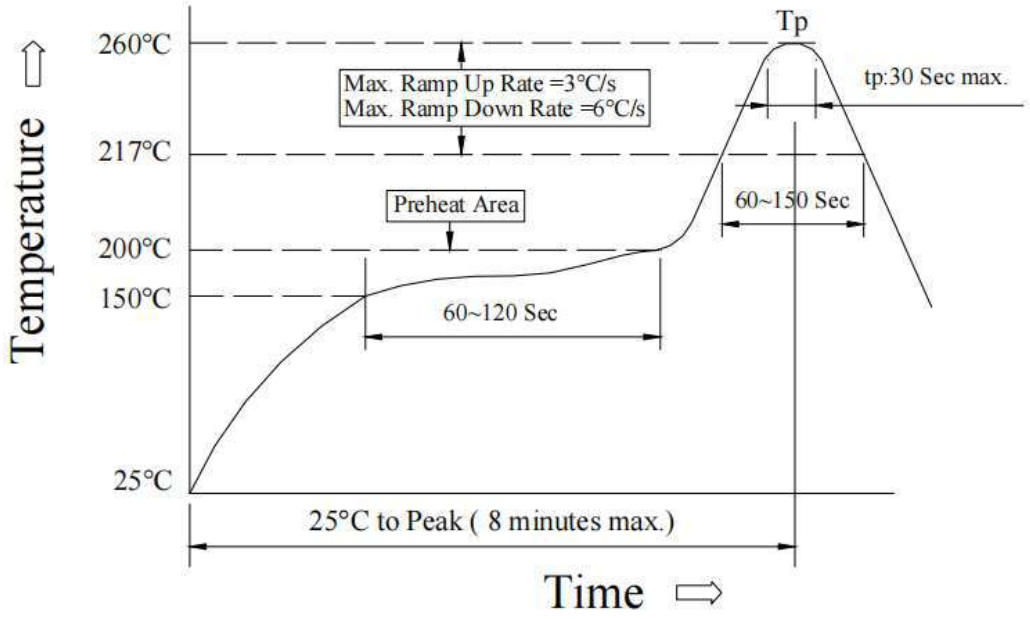
Part Number	Inductance (μH)	DCR (mΩ)		ISAT (A)		IRMS (A)	
		MAX	Typ	MAX	Typ	MAX	Typ
AWIM252012D-R22MTF	0.22±20%	14.0	9.0	9.0	9.6	7.6	8.2
AWIM252012D-R22MTF-8R0	0.22±20%	10.0	8.0	10.0	12.0	8.0	11.0
AWIM252012D-R24MTF	0.24±20%	15.0	10.4	8.8	9.3	6.4	7.0
AWIM252012D-R33MTF	0.33±20%	17.0	13.5	7.8	8.3	6.1	6.6
AWIM252012D-R47MTF	0.47±20%	19.0	14.0	6.8	7.3	6.0	6.5
AWIM252012D-R47MTF-11R	0.47±20%	13.0	11.0	8.0	8.5	7.5	8.0
AWIM252012D-R68MTF	0.68±20%	23.0	19.0	6.0	6.5	5.0	5.5
AWIM252012D-R68MTF-15R	0.68±20%	18.0	15.0	6.0	6.7	7.0	7.5
AWIM252012D-1R0MTF	1.0±20%	42.0	35.0	4.5	5.5	3.6	4.0
AWIM252012D-1R0MTF-16R	1.0±20%	22.0	16.0	6.0	6.5	5.6	6.1
AWIM252012D-1R5MTF	1.5±20%	56.0	48.0	3.8	4.0	3.2	3.5
AWIM252012D-1R5MTF-27R	1.5±20%	32.0	27.0	4.4	4.7	4.2	4.6
AWIM252012D-2R2MTF	2.2±20%	79.0	64.0	3.3	3.8	2.7	3.0
AWIM252012D-3R3MTF	3.3±20%	125.0	103.0	2.5	2.8	1.8	2.1
AWIM252012D-4R7MTF	4.7±20%	180.0	150.0	2.1	2.4	1.5	1.8
AWIM252012D-6R8MTF	6.8±20%	270.0	245.0	1.7	2.0	1.3	1.5
AWIM252012D-100MTF	10.0±20%	400.0	330.0	1.45	1.6	1.05	1.2

Notes:

1. All test data is referenced to 25℃ ambient.
2. Test Condition:1MHz, 1.0Vrms.
3. IRMS: DC current (A) that will cause an approximate rise (△T) of 40℃
4. ISAT: DC current (A) that causes the initial inductance L0 to drop approximately 30%
5. Operate temperature range -55℃ to +125℃

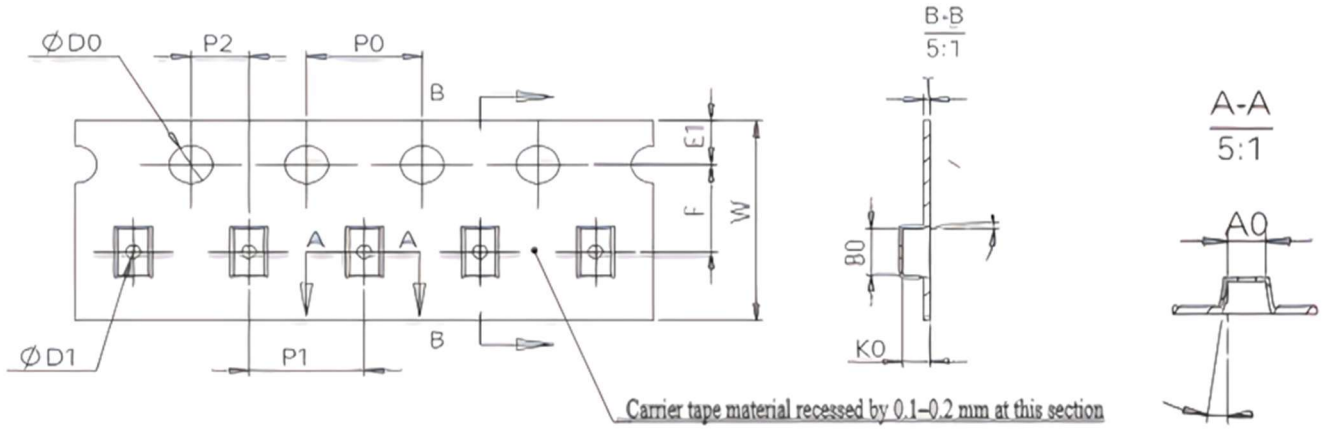
6. The part temperature (ambient + temp rise) should not exceed 125℃ under worst case operating conditions. Circuit design, component. PCB trace size and thickness, airflow and other cooling processions all affect the part temperature. The part temperature should be verified in the actual application.
7. Rated current is defined as the lower of the saturation current (I_{SAT}) and the heating current (I_{RMS}).

Lead-free Reflow Soldering Heat Endurance



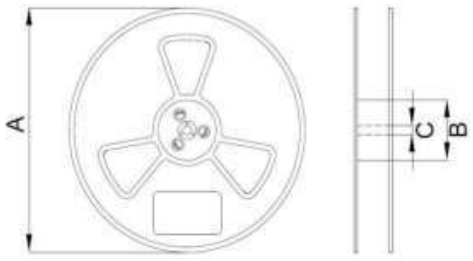
The reflow profile is based on test instrument settings; actual solderability may vary depending on equipment type, reflow conditions, and test methods used.

Packaging Specification-Tape: [mm]



W	A0	B0	K0	E	F	P0	P2	P1	D0	D1	T
8.0±0.1	2.35+0.1/-0.05	2.80+0.1/-0.05	1.35±0.1	1.75±0.1	3.5±0.1	4.0±0.1	2.0±0.1	4.0±0.1	1.5+0.10/-0.00	1.0±0.2	0.23±0.05

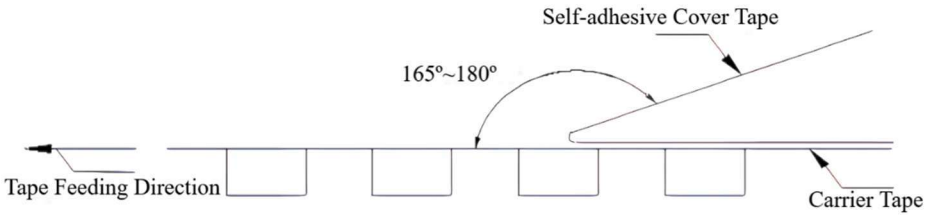
Packaging Specification-Reel: [mm]



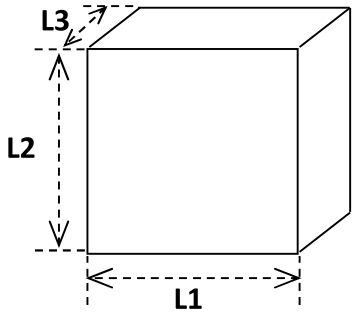
A	B	C
178±2.0	60± 2.0	9.0± 2.0

Packaging Specification-Force: [mm]

Pull-off force	0.20N – 0.98N	20 g·f -100g·f
Tape Width	8mm	



Packaging Specification-Carton: [mm]



Box#	Type	L1	L2	L3
A	Inner Box	180±2	195±2	70±2
B	Inner Box	180±2	183±2	119±2
C	Case	380±2	210±2	200±2
D	Case	380±2	400±2	200±2
E	Case	500±2	195±2	385±2

Packing Quantities	3000 pcs/ Reel

A + C: 1 box holds 5 reels, 1 case holds 5 boxes

B + C: 1 box holds 10 reels, 1 case holds 3 boxes

B + D: 1 box holds 10 reels, 1 case holds 6 boxes

B + E: 1 box holds 10 reels, 1 case holds 8 boxes

Notes: Packaging combinations are selected based on the actual shipment quantity.