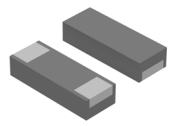


Molded Ultra-thin Power Inductor



AVR-1M010424S

Request Samples



Check Inventory



10.6 x 4.0 x 2.2mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Metal Alloy
- Low DCR, High Efficiency
- High temperature-rise current rating
- High saturation current rating
- Low Profile

Applications

- Single and Multiphase DC-DC converters
- Voltage regulator modules (VRMs)
- Renewable energy, Power inverters, DC links
- Electric Vehicles (EVs)
- Telecom infrastructure, datacenters, servers and switches
- Industrial and robotics equipment
- Medium and high-power switch mode power supplies (SMPS)

Electrical Specifications @ 25°C

Part Number*	Inductance	Inductance Tolerance	DC Resistance	Saturation Current		Temperature Rise Current	
	1MHz/1.0V			Max.	Typ.	Max.	Typ.
Units	nH	%	mΩ	A		A	
Symbol	L	M	DCR	Isat		Irms	
AVR-1M010424S75NM	75	20%	0.4 ±5%	60	65	45	50

*For full orderable part number, please refer to the [Part Identification](#) section.

Test Conditions:

Isat: DC current at which the inductance drops 30% from its nominal value at 25°C.

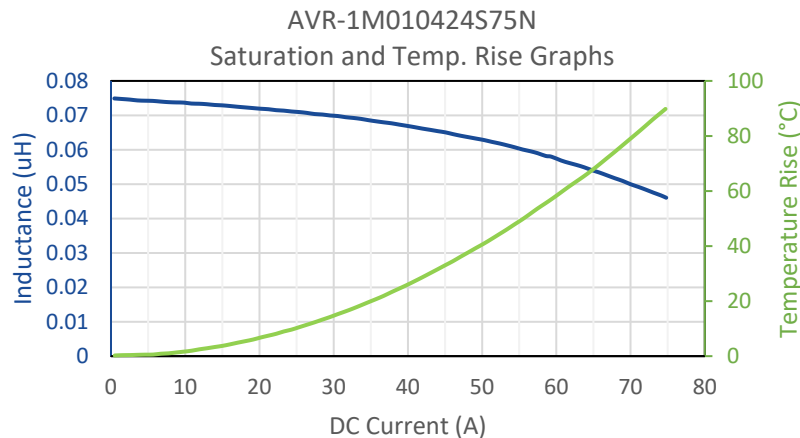
Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 20°C ambient.

Operating Temperature: -40°C ~ +125°C. (including self-temperature rise)

Storage Condition: -40°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 85% max.

AVR-1M010424S Series is **RoHS Compliant and Pb free.**

Performance Graphs

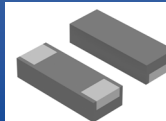


12117 Bee Caves Rd, Bldg-3 Ste 200, Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
10/7/2025

ABRACON IS
ISO9001-2015
CERTIFIED

Molded Ultra-thin Power Inductor



AVR-1M010424S

Request Samples



Check Inventory



10.6 x 4.0 x 2.2mm

RoHS/RoHS II Compliant

MSL Level = 1

Part Identification

AVR-1M010424S

Inductance Code

See Electrical Specification table
e.g. 75N for 75nH

Tolerance

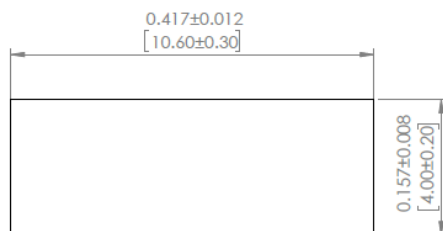
M = $\pm 20\%$

Packaging options

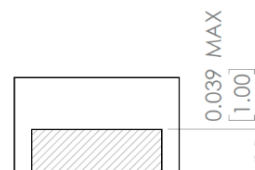
T: Tape and Reel (See Packaging)
B: Bulk

*Tolerance only available as
indicated in electrical spec. table

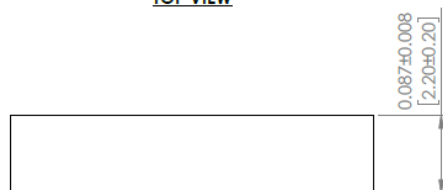
Mechanical Specifications



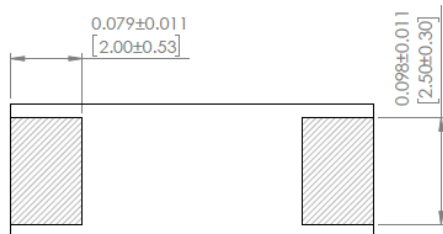
TOP VIEW



SIDE VIEW

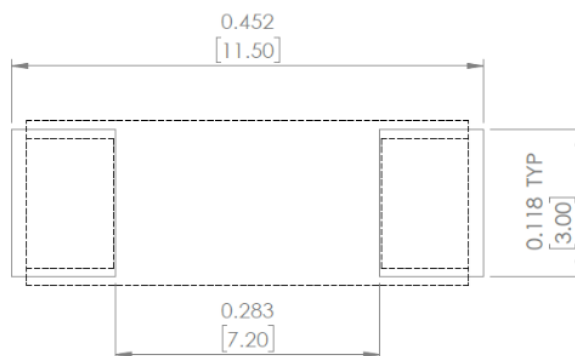


FRONT VIEW



BOTTOM VIEW

RECOMMENDED LAND PATTERN



Dimensions: Inches [mm]

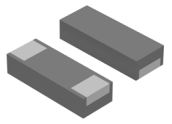


12117 Bee Caves Rd, Bldg-3 Ste 200, Bee Cave, TX 78738
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
10/7/2025

ABRACON IS
ISO9001-2015
CERTIFIED

Molded Ultra-thin Power Inductor



AVR-1M010424S

Request Samples



Check Inventory



10.6 x 4.0 x 2.2mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile

Reflow standard: [JEDEC J-STD-020]

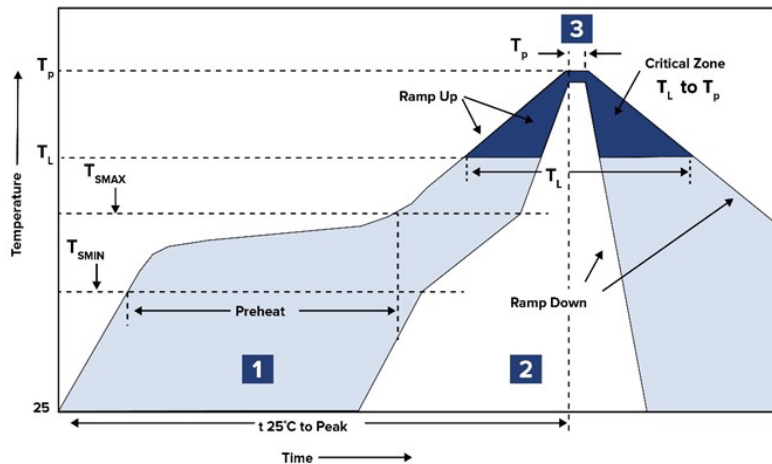


Table 1

SnPb Eutectic Process Classification Temperatures (T_c)

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥350
<2.5 mm	235 °C	220 °C
≥2.5 mm	220 °C	220 °C

Table 2

Pb-Free Process Classification Temperatures (T_c)

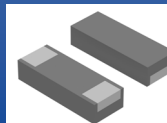
Package Thickness	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smin})	100°C	150°C
Temperature maximum (T_{smax})	150°C	200°C
Time (T_{smin} to T_{smax}) (t_s)	60 - 120 sec.	60 - 120 sec.
Average ramp-up rate (T_{smax} to T_P)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	217°C
Time at liquidous (t_L)	60 - 150 sec.	60 - 150 sec.
Peak package body temperature (T_P)*	see Table 1	see Table 2
Time (t_P)** within 5°C of the specified classification temperature (T_c)	20 sec.	30 sec.
Ramp-down rate (T_P to T_{smax})	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

*Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_P) is defined as supplier minimum and a user maximum.

Molded Ultra-thin Power Inductor



AVR-1M010424S

Request Samples



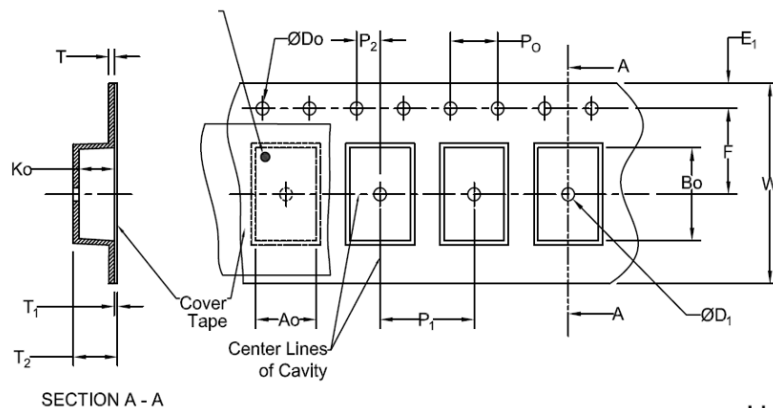
Check Inventory



10.6 x 4.0 x 2.2mm
RoHS/RoHS II Compliant
MSL Level = 1

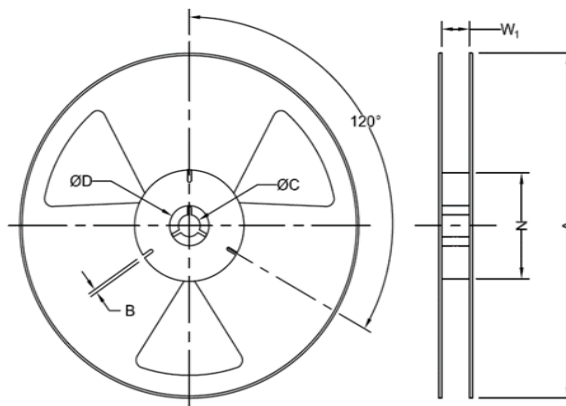
Packaging

Tape & Reel: 2500 pcs/reel



Unit: mm

Tape Specifications (mm)							
Width (W)	Ao	Bo	Do	D1 (Min)	E1	F	Ko
24mm	4.5 Ref	11.4 Ref	1.5+0.1/-0.0	1.0	1.75±0.1	11.5±0.10	2.7 Ref
	P1	P2	P0	T (Max)	T1 (Max)	T2 (Max)	W (Max)
	8.0±0.1	2.0±0.1	4.0±0.1	0.6	0.1	*	24.3



Unit: mm

Reel Specifications (mm)						
Width	A (Nom)	B (Min)	C (Min)	D (Min)	N (Min)	*W1
24mm	330	1.5	13.0+0.5/-0.2	20.2	100	24.4+2.0/-0.0

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



12117 Bee Caves Rd, Bldg-3 Ste 200, Bee Cave, TX 78738
 Phone: 512-371-6159 Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
10/7/2025

ABRACON IS
 ISO9001-2015
 CERTIFIED