

**AVR-1F040404S**

Request Samples



Check Inventory



3.7 x 3.8 x 3.7~4.1 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- Shielded construction
- Soft saturation
- High Power Density
- Low DCR of 0.3mΩ, High Efficiency
- Perfect for multi-phased power circuitry

## Applications

- Desktop/ Server applications
- High current point-of-load (POL) converters
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high-power switch mode power supplies.

## Electrical Specifications

| Part Number*      | Inductance  | Tolerance | DC Resistance | Saturation Current (Typ) |        | Temperature Rise Current |
|-------------------|-------------|-----------|---------------|--------------------------|--------|--------------------------|
|                   | 0.1MHz/1.0V |           | Max           | @25°C                    | @100°C | Typ.                     |
| Units             | nH          | %         | mΩ ±10%       | A                        |        | A                        |
| Symbol            | L           |           | DCR           | Isat                     |        | Irms                     |
| AVR-1F040404S22NM | 22          | ±20%      | 0.3           | 40                       | 34     | 48                       |
| AVR-1F040404S50NK | 50          | ±10%      |               | 35                       | 30     |                          |
| AVR-1F040404S65NK | 65          | ±10%      |               | 30                       | 23     |                          |
| AVR-1F040404SR10K | 100         | ±10%      |               | 17                       | 15     |                          |

\*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 value without current.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 20°C ambient

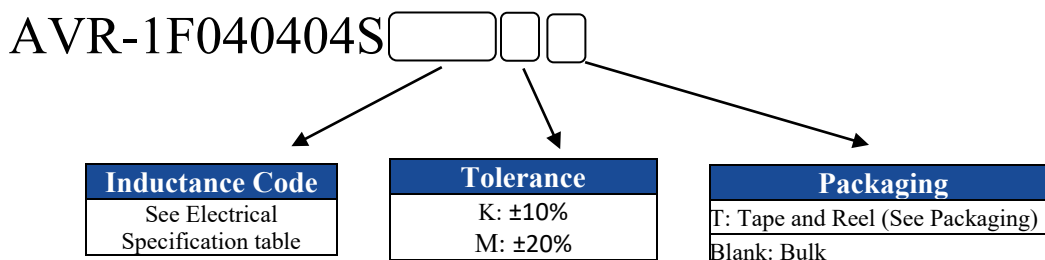
**Operating Temperature:** -55°C ~ +125°C (including self-temperature rise)

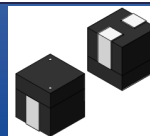
**Storage Condition:** -40°C ~ +125°C (with packaging) and R.H. <95% max

**Operating Voltage:** 40V (across inductor)

AVR-1F040404S Series is **RoHS Compliant and Pb free**

## Part Identification





**AVR-1F040404S**

Request Samples

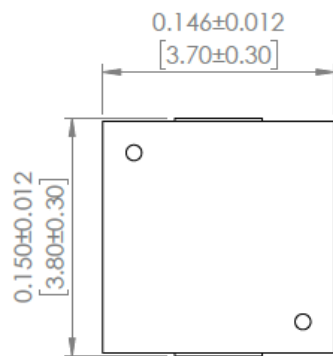


Check Inventory

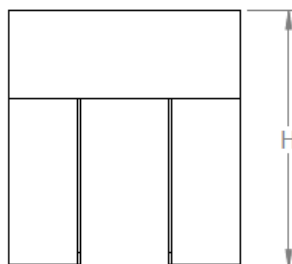


3.7 x 3.8 x 3.7~4.1 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

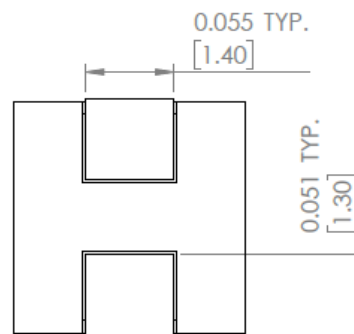
## Mechanical Specifications



**TOP VIEW**



**FRONT VIEW**

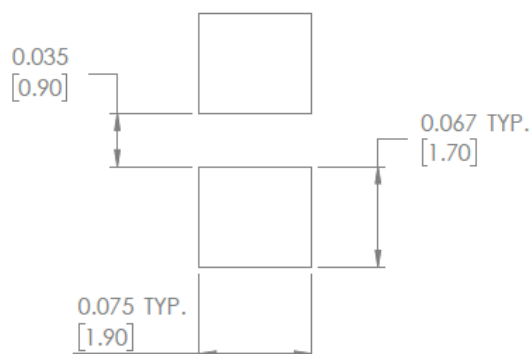


**BOTTOM VIEW**

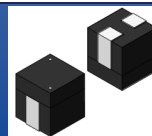
| Code | Series            | Height,H                  |
|------|-------------------|---------------------------|
| H    | AVR-1F040404S22NM | 0.161 [4.10] ±0.008[0.20] |
|      | AVR-1F040404S50NK | 0.146 [3.70] ±0.012[0.30] |
|      | AVR-1F040404S65NK | 0.146 [3.70] ±0.012[0.30] |
|      | AVR-1F040404SR10K | 0.146 [3.70] ±0.012[0.30] |

Dimensions: Inches [mm]

## Recommended Land Pattern



Dimensions: Inches [mm]



AVR-1F040404S

Request Samples

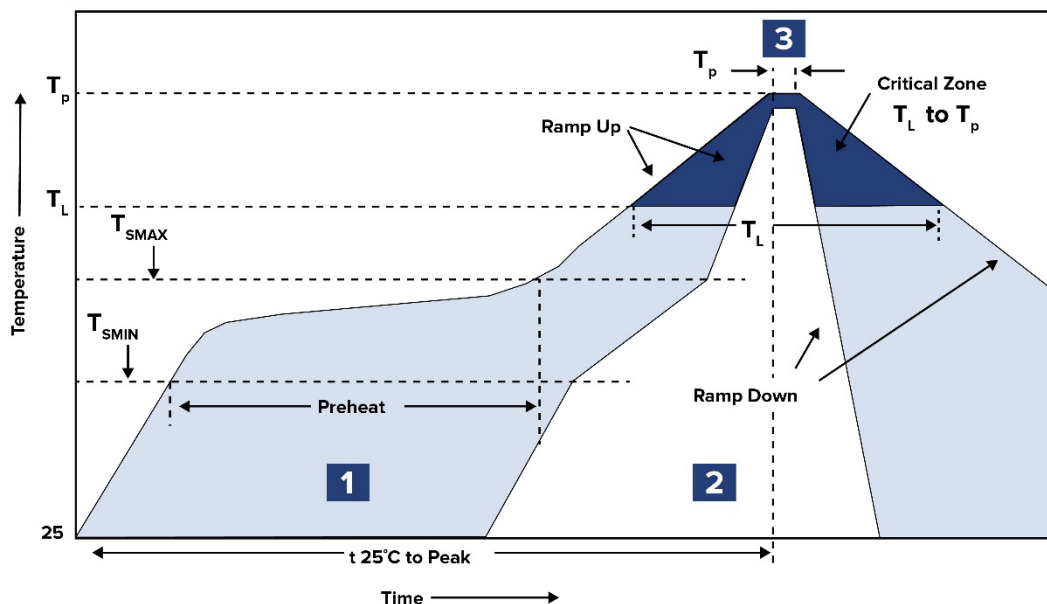


Check Inventory

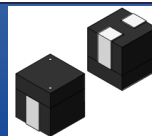


3.7 x 3.8 x 3.7~4.1 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Reflow Profile



| Zone | Description | Temperature                               | Times         |
|------|-------------|-------------------------------------------|---------------|
| 1    | Preheat     | $T_{SMIN} \sim T_{SMAX}$<br>150°C ~ 200°C | 60 ~ 120 sec. |
| 2    | Reflow      | $T_L$<br>217°C                            | 60 ~ 150 sec. |
| 3    | Peak heat   | $T_p$<br>260°C                            | 5 sec. MAX    |



**AVR-1F040404S**

Request Samples



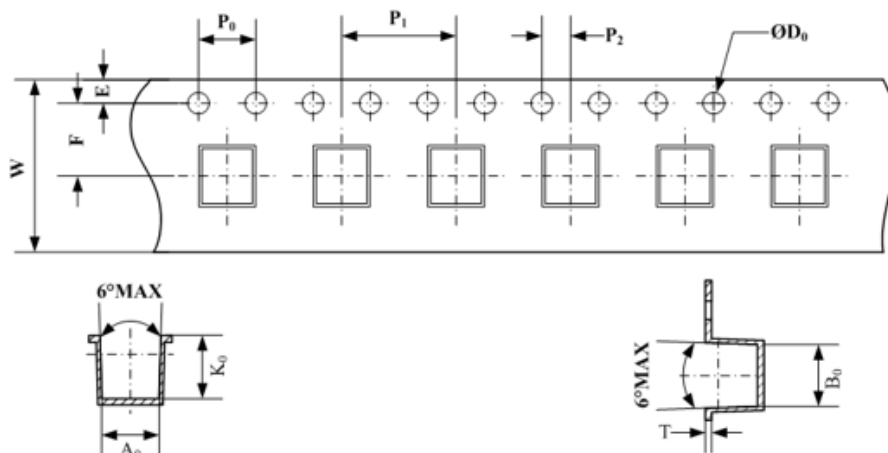
Check Inventory



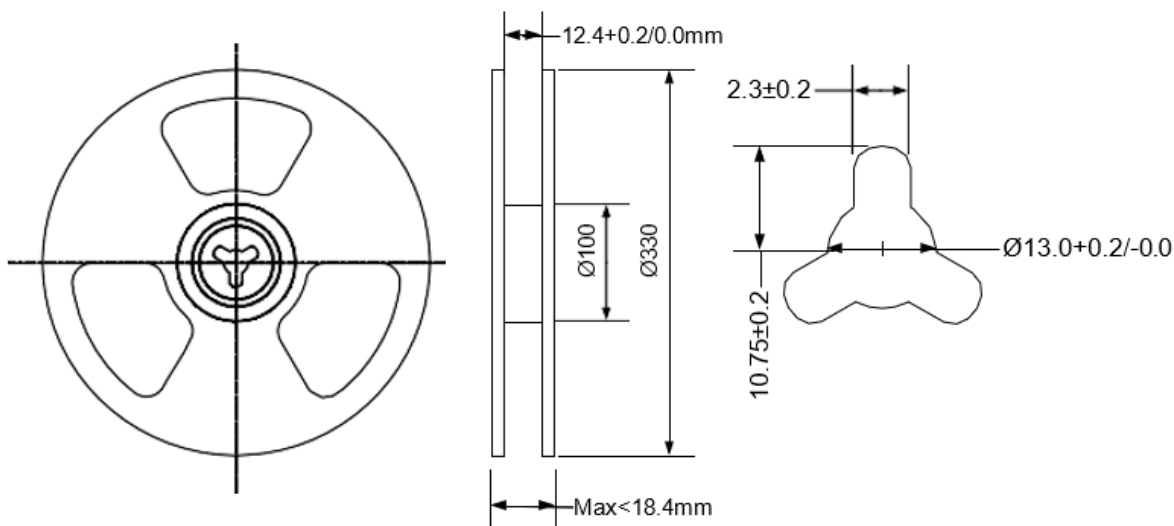
3.7 x 3.8 x 3.7~4.1 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Packaging

Tape & Reel: 1,500 pcs/reel



| Series        | W        | E        | F       | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | D <sub>0</sub> | A <sub>0</sub> | B <sub>0</sub> | T         | K <sub>0</sub> |
|---------------|----------|----------|---------|----------------|----------------|----------------|----------------|----------------|----------------|-----------|----------------|
| AVR-1F040404S | 12.0±0.3 | 1.75±0.1 | 5.5±0.1 | 4.0±0.1        | 8.0±0.1        | 2.0±0.1        | 1.5+0.1/-0.0   | 4.2±0.1        | 4.4±0.1        | 0.40±0.05 | 4.2±0.1        |



Dimensions: mm

**ATTENTION:** Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



5101 Hidden Creek Ln, Spicewood TX 78669  
Phone: 512-371-6159 Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISION A : 5/5/2026

ABRACON IS  
ISO9001-2015  
CERTIFIED