

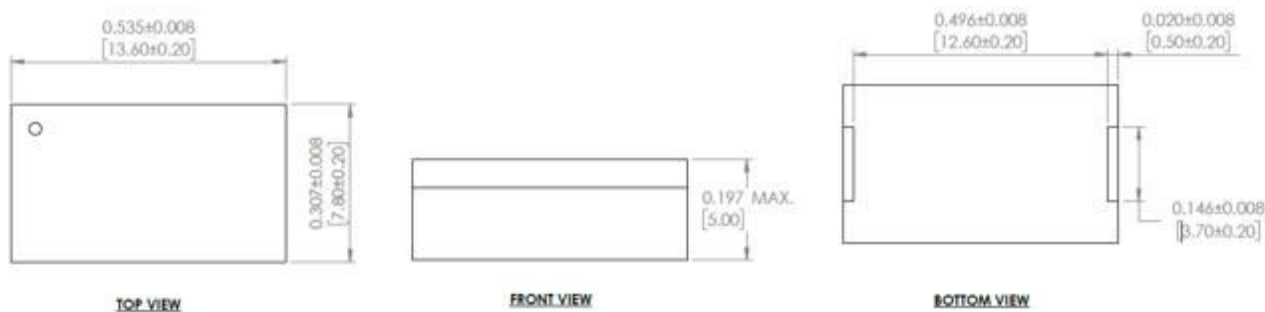
ECN/PCN No.: M1642

For Manufacturer

Product Description: Assembly Power Inductor	Abracon Part Number / Part Series: AVR-1F140805S	☐ Documentation only ☒ Series ☒ ECN ☐ Part Number(s) ☐ EOL
Affected Revision: Initial revision	New Revision: A	Application: ☐ Safety ☒ Non-Safety

Prior to Change:

Mechanical Specifications

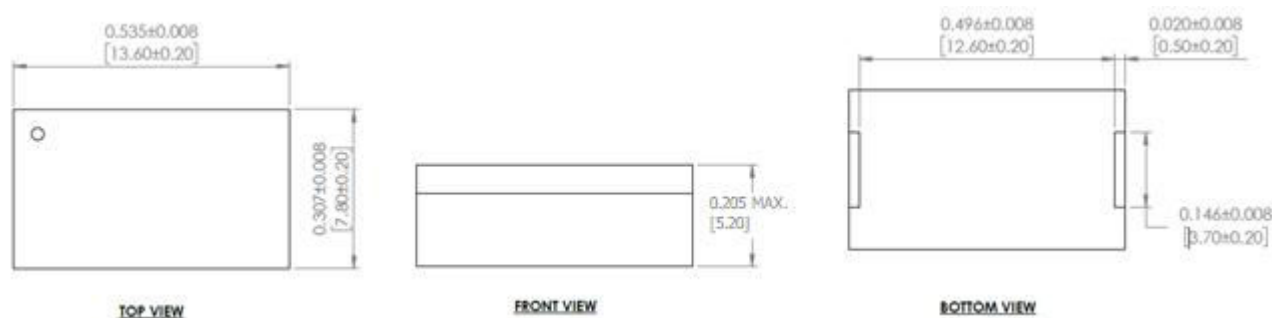


Dimensions: Inches [mm]

Packaging

Tape & Reel: 400 pcs/reel

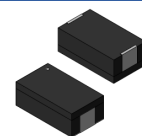
After Change:



Packaging

Tape & Reel: 800 pcs/reel

Cause/Reason for Change: Production line recommends increasing package maximum height to 5.2mm. Pieces per reel has increased.		
Change Plan		
Effective Date: 7/8/2025	Additional Remarks:	
Change Declaration: There are no changes to electrical performance of the product. However, the height maximum of the package has increased from 5.0mm to 5.2mm. Package length and width has NOT changed.		
Issued Date: 7/8/2025	Issued By: <i>Gerald Capwell</i>	Issued Department: Engineering
Approval: <i>Syed Raza</i> Engineering VP	Approval: <i>Reuben Quintanilla</i> Quality Director	Approval: <i>Ying Huang</i> Purchasing Director
For Abracon EOL only		
Last Time Buy (if applicable):		Alternate Part Number / Part Series:
Additional Approval:	Additional Approval:	Additional Approval:
Customer Approval (If Applicable)		
Qualification Status: ☒ Approved ☐ Not accepted <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>		
Customer Part Number:		Customer Project:
Company Name:	Company Representative:	Representative Signature:
Customer Remarks:		



AVR-1F140805S

Request Samples



Check Inventory



13.6 x 7.8 x 5.2 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Shielded construction
- Soft saturation
- High Power Density
- Low DCR, 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			@25°C	@100°C	Min.
Units	nH	%	mΩ ±15%	A		A
Symbol	L		DCR	Isat		Irms
AVR-1F140805SR10K	100	±10%	0.17	76	61	58
AVR-1F140805SR22K	220	±10%	0.17	45	40	58

Test Conditions

Isat: DC current at which the inductance drops 30% from its value without current.

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

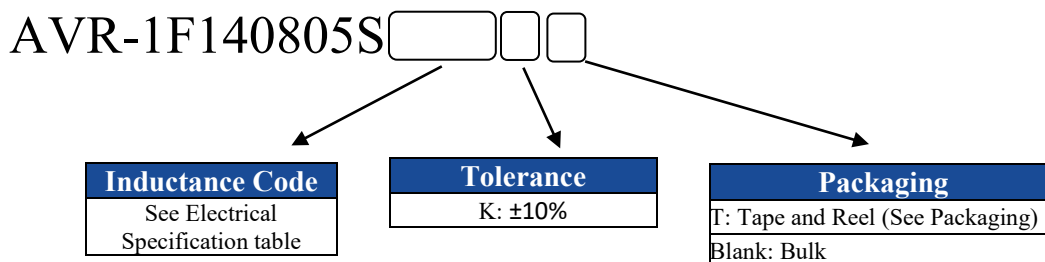
Operating Temperature: -40°C ~ +125°C (including self-temperature rise)

Storage Condition: -40°C ~ +85°C (with packaging) and R.H. <95% max

Operating Voltage: 40V (across inductor)

AVR-1F140805S Series is **RoHS Compliant and Pb free**

Part Identification





AVR-1F140805S

Request Samples

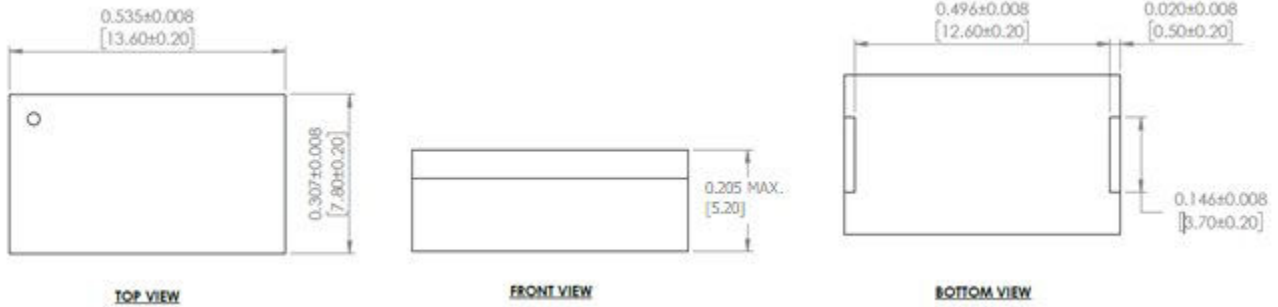


Check Inventory



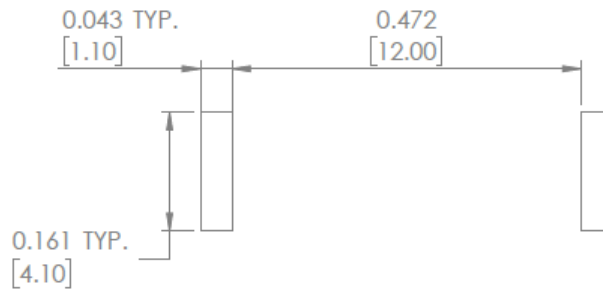
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MSL Level = 1

Mechanical Specifications

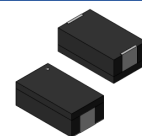


Dimensions: Inches [mm]

Recommended Land Pattern



Dimensions: Inches [mm]



AVR-1F140805S

Request Samples

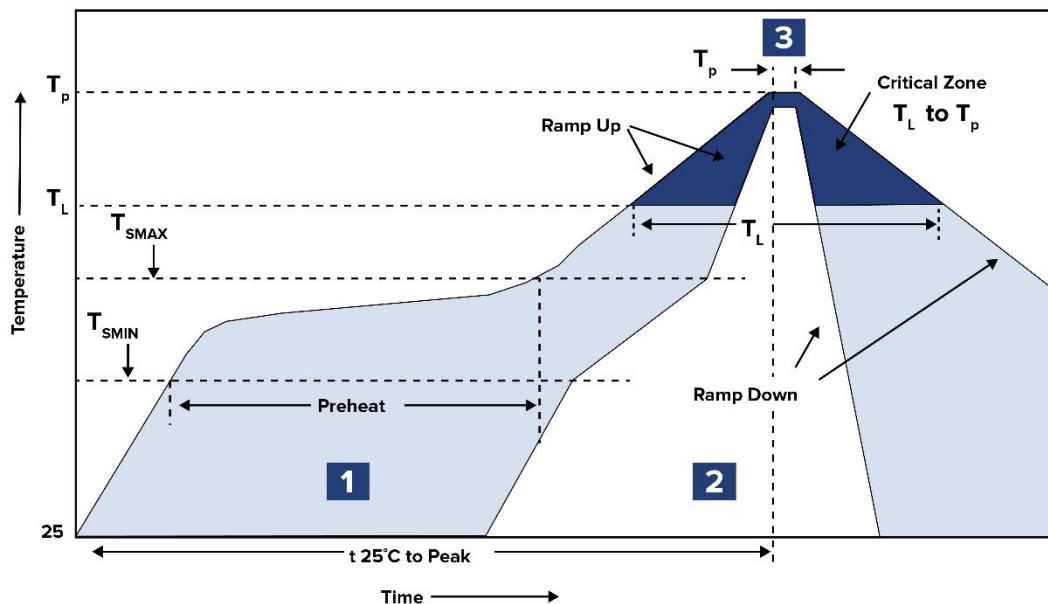


Check Inventory

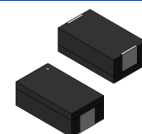


13.6 x 7.8 x 5.2 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile



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



AVR-1F140805S

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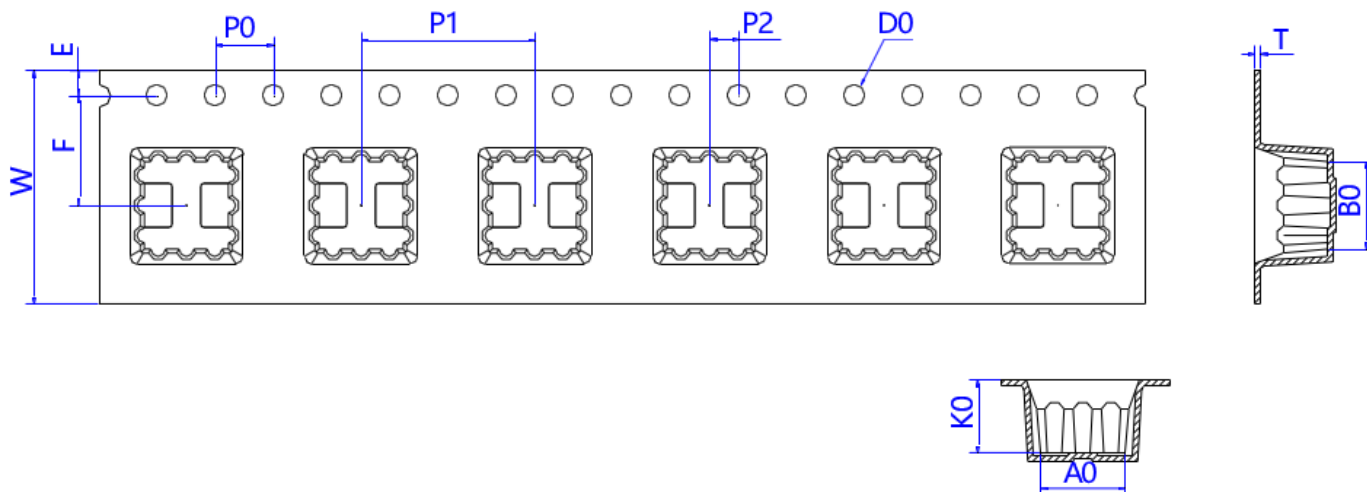
Check Inventory



13.6 x 7.8 x 5.2 mm
RoHS/RoHS II Compliant
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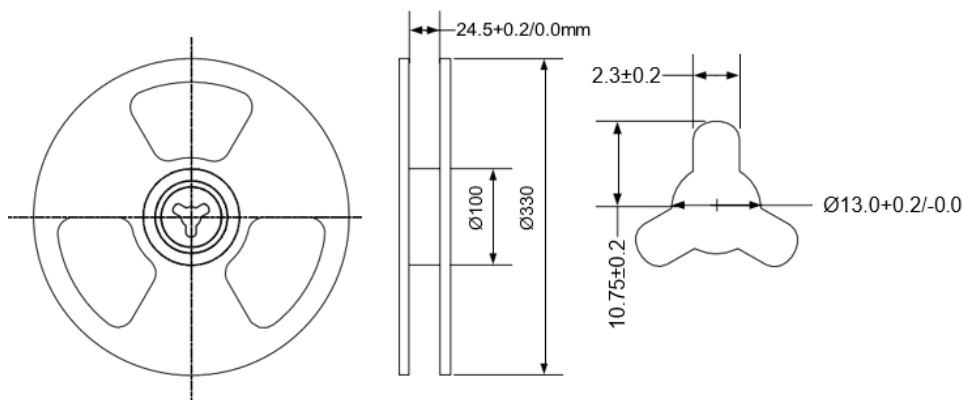
Packaging

Tape & Reel: 800 pcs/reel



Series	W	E	F	P ₀	P ₁	P ₂	D ₀	A ₀	B ₀	T	K ₀
AVR-1F140805S	24.00 ± 0.30	1.75 ± 0.10	11.50 ± 0.10	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	1.5 + 0.1/- 0.0	8.3 ± 0.10	14.3 ± 0.10	0.40 ± 0.05	5.30 ± 0.10

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.



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For terms and conditions of sales, please visit:
www.abracon.com

REVISION A : 7/7/2025

ABRACON IS
ISO9001-2015
CERTIFIED

Brand	Affected PN	Series	ECO#	Datasheet Link	ECN Notification Link
Abracon	AVR-1F140805SR10K	AVR-1F140805S	M1642	https://abracon.com/datasheets/AVR-1F140805S.pdf	https://abracon.com/downloads/ECN-PCN/ECN-ECO-M1642-AVR-1F140805S-Notification.pdf
Abracon	AVR-1F140805SR22K	AVR-1F140805S	M1642	https://abracon.com/datasheets/AVR-1F140805S.pdf	https://abracon.com/downloads/ECN-PCN/ECN-ECO-M1642-AVR-1F140805S-Notification.pdf