

High Frequency Ferrite Beads – SG 0402 Series



AFBC-SG0402 Series

Request Samples



Check Inventory



1.0 x 0.5 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Internal silver lithographic layers
- EMI suppression at High Frequencies
- Monolithic inorganic material construction
- DC resistance as low as 0.20Ω
- Amperage up to 900mA
- Magnetically shielded

Applications

- Electronic control Units (ECUs)
- RF transceiver modules
- Antennas
- Infotainment system
- ADAS
- Industrial connectivity (IIoT)

Electrical Specifications

Part Number	Impedance (Typical)	DC Resistance	Rated Current
Units	Ω ± 25%	Ω Max.	mA Max.
Symbol	Z	R _{DC}	I _R
AFBC-SG0402-700	70	0.200	900
AFBC-SG0402-121	120	0.300	800
AFBC-SG0402-221	220	0.400	700

Test Conditions and Equipment

Z Test Frequency: 100MHz

DCR: High Accuracy LCR Meter – HP4263A

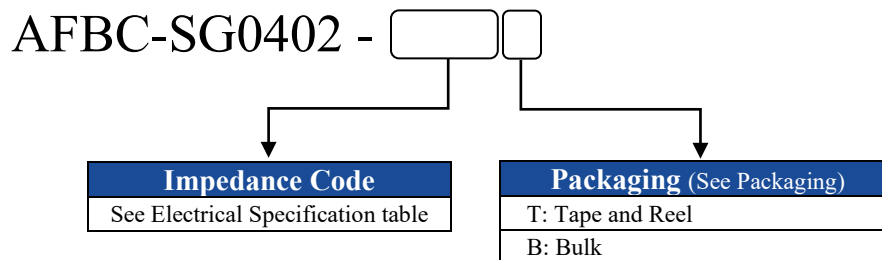
IR: Rated current applied when the chip surface temperature rise just 20°C against ambient temperature.

Operating Temperature: -40°C to +85°C (Including Self-Temperature rise)

Storage Temperature: -10°C to +40°C and RH 60% (Max).

AFBC-SG0402 Series is **RoHS Compliant and Pb free**

Part Identification



5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
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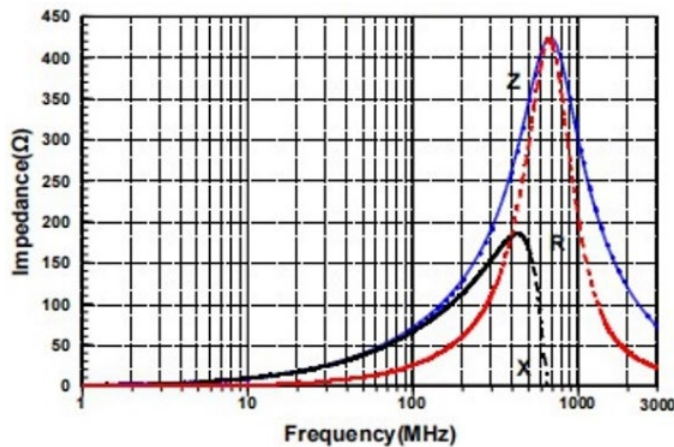
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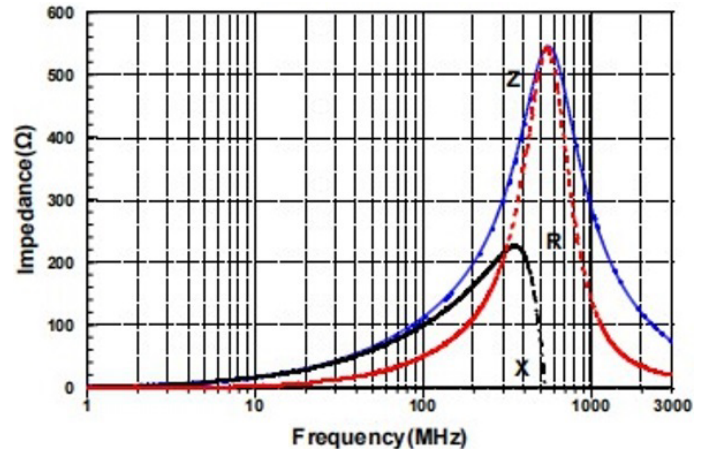
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Performance Graphs

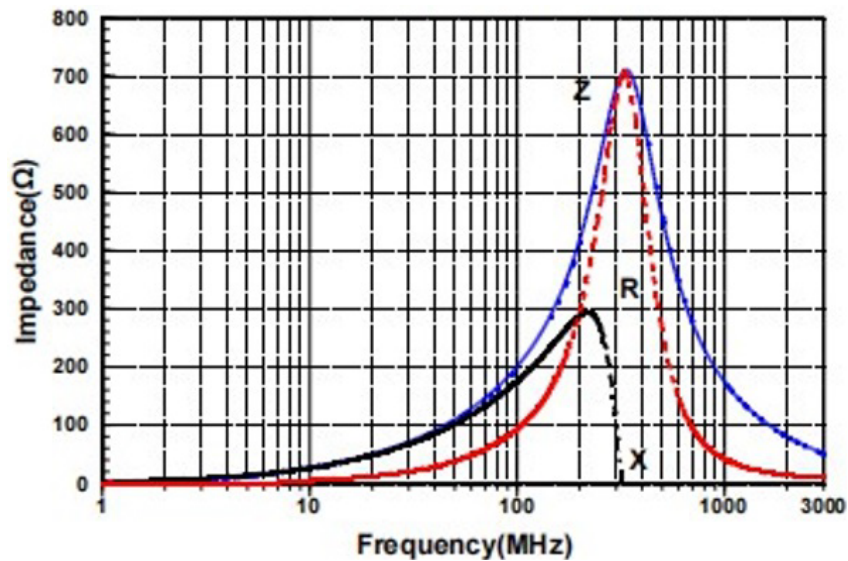
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AFBC-SG0402-121



AFBC-SG0402-221



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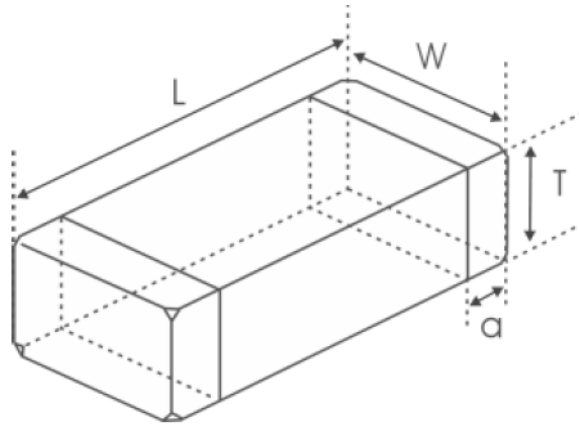


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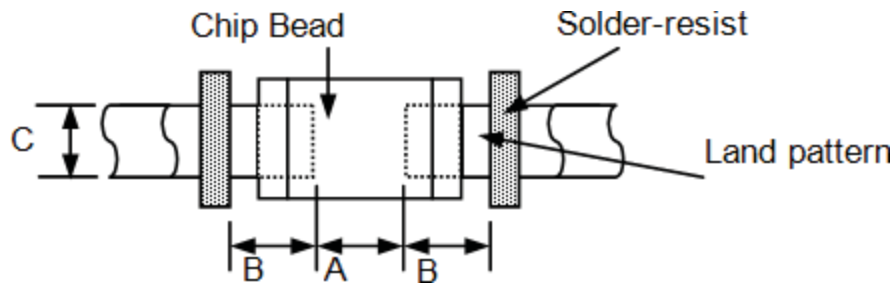


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Mechanical Specifications



L	W	T	a
1.00±0.10	0.50±0.10	0.50±0.15	0.25±0.10



A	B	C
0.60 ~ 0.80	0.60 ~ 0.80	0.60 ~ 0.80

Dimensions: mm

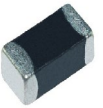


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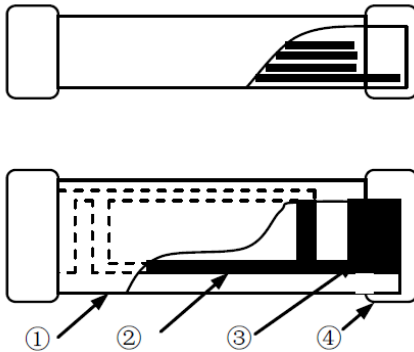


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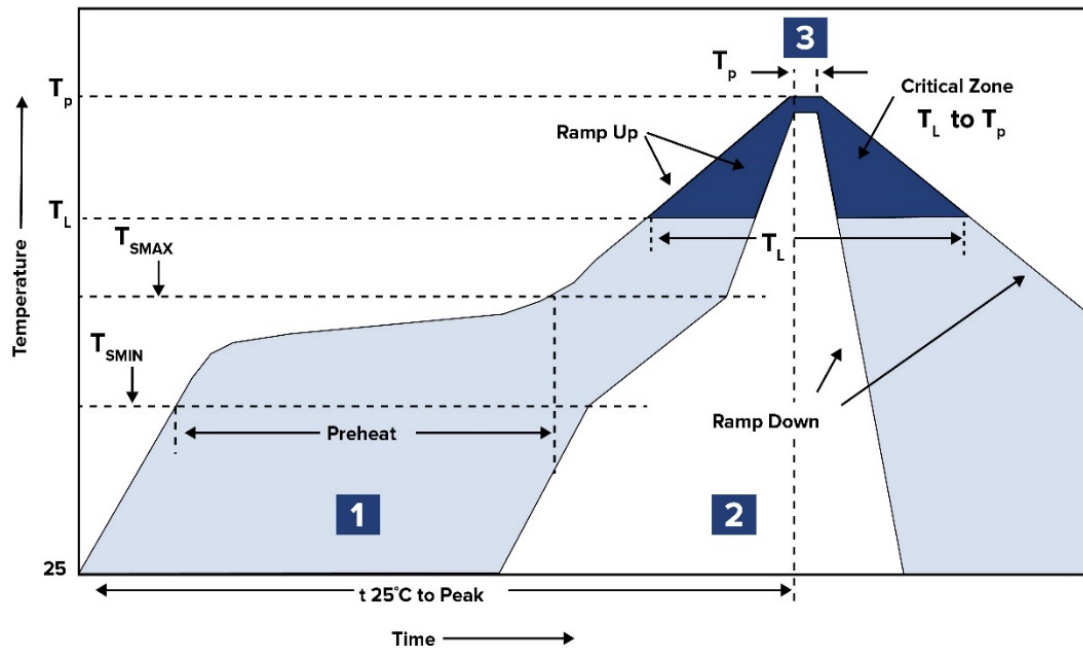
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Materials



	Part Name	Material
1	Base Material	Ceramic powder
2	Internal Conductor	Ag paste
3	Terminal Electrode	Ag
4	Electrode Plating	Ni-Sn

Reflow Soldering 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	90 ~ 90 sec.
3	Peak heat	T_P 260°C ± 5°C	10 sec. MAX

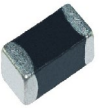


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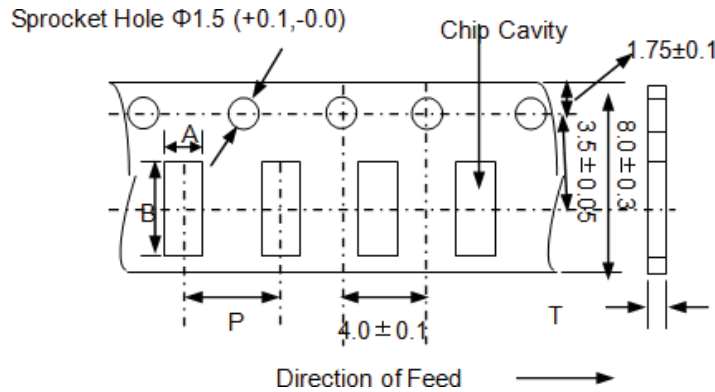
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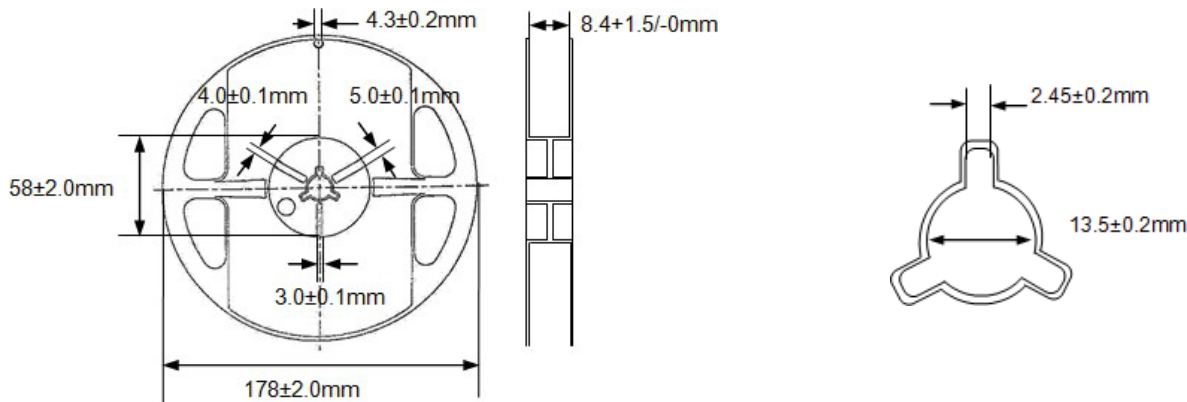
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Packaging

Tape & Reel: 10K pcs/reel



Series	A	B	P	T max
AFBC-SG0402 Series	0.65 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	0.8



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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