

Low Loss, High Power Ferrite Beads



AFBC-SH1210P

Request Samples



Check Inventory



3.2 x 2.5 x 2.0/1.5 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 0.6mΩ
- 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	Package Height
Units	$\Omega \pm \text{tol}\%$	$\Omega \text{ Max.}$	mA Max.	mm
Symbol	Z	R _{DC}	I _R	C
AFBC-SH1210P-120	12±5%	0.0006	20000	2.0±0.2
AFBC-SH1210P-260	26±10%	0.0016	10000	1.5+0.1/-0.2
AFBC-SH1210P-300	30±10%	0.0016	10000	2.0±0.2

Test Conditions and Equipment

Z Test Frequency: 100MHz/60mV

DCR: High Accuracy LCR Meter – HP4263A

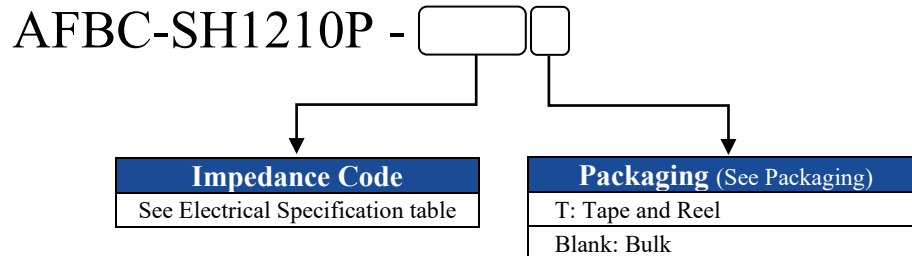
IR: Rated current applied when the chip surface temperature rise just 20°C against ambient temperature.

Operating Temperature: -55°C to +125°C (Including Self-Temperature rise)

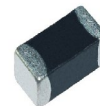
Storage Temperature: -10°C to +40°C and RH 60% (Max).

AFBC-SH1210P is **RoHS Compliant and Pb free**

Part Identification



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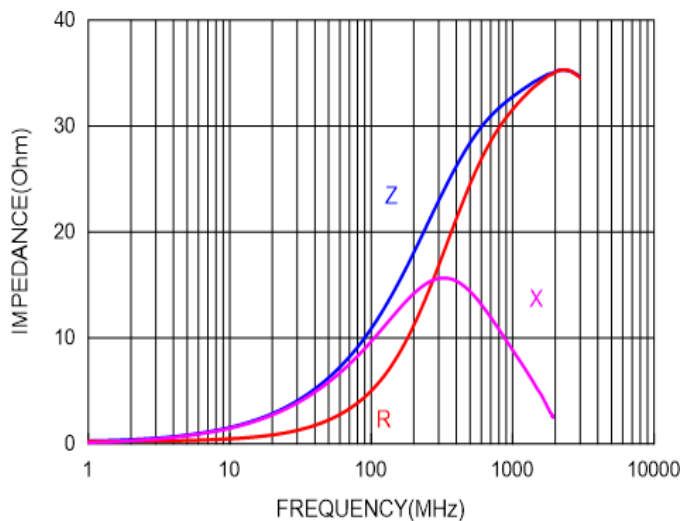
Check Inventory



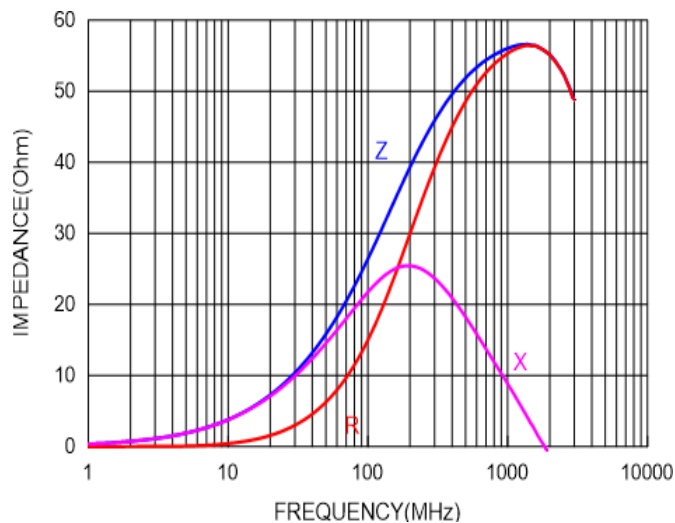
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Performance Graphs

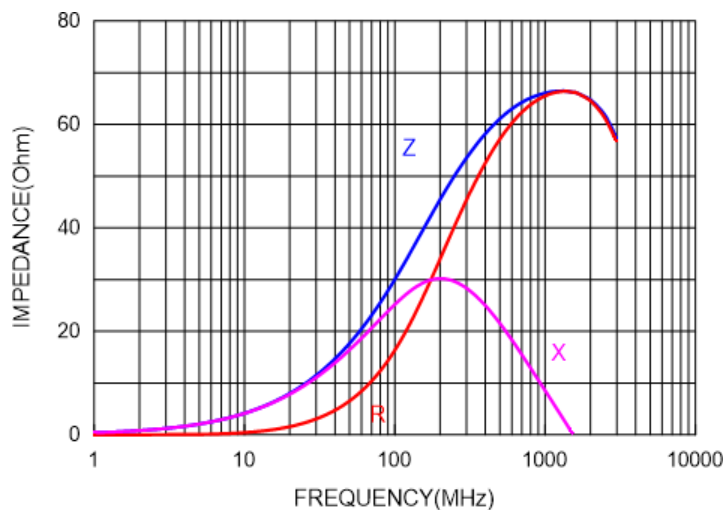
AFBC-SH1210P-120



AFBC-SH1210P-260



AFBC-SH1210P-300



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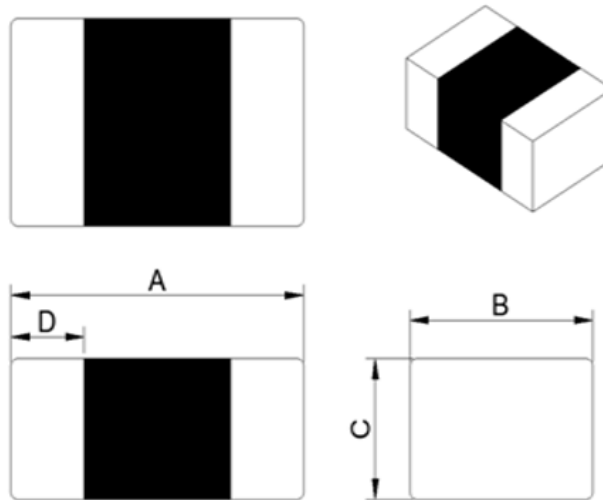


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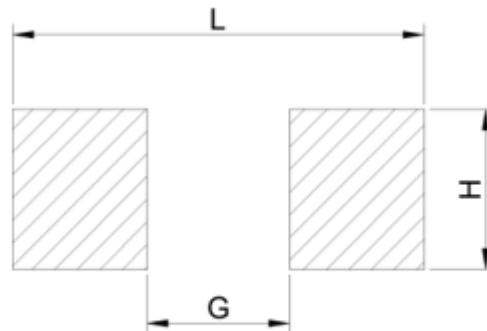
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Mechanical Specifications



A	B	C	D
3.20±0.20	1.60±0.20	See Electrical Specifications Table	0.50±0.30

Dimensions: mm

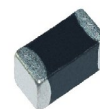


Recommended PCB Layout

L	G	H
4.30 Ref	2.20 Ref	1.80 Ref

Dimensions: mm

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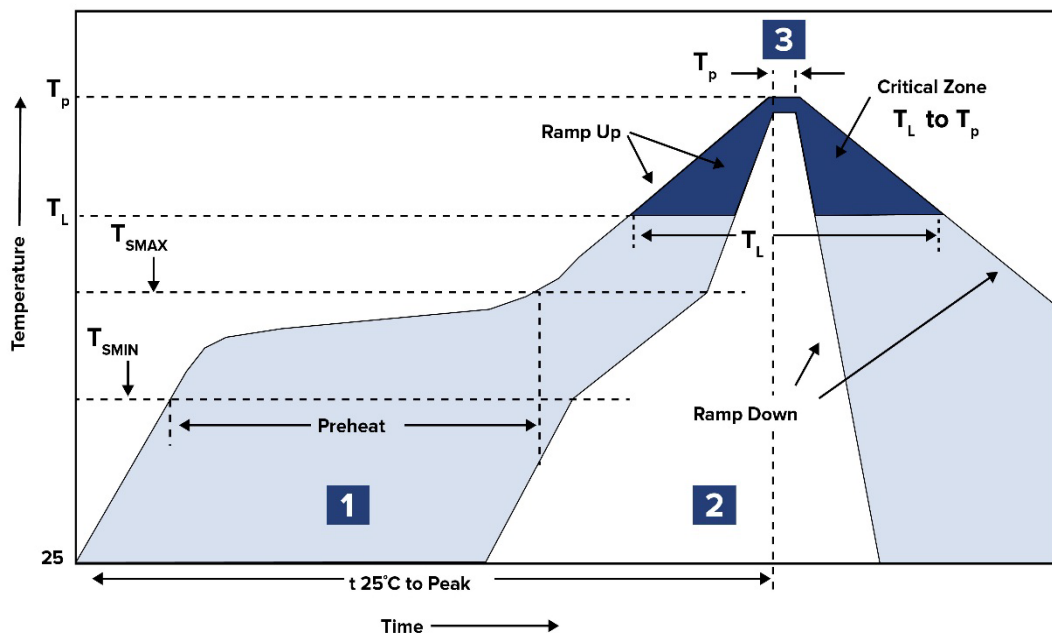


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Reflow Profile

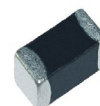


Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 260°C ±5°C	30 sec. MAX

Ramp up: T_L to $T_P = 3^{\circ}C/s$ Max.

Ramp down: T_P to $T_L = 6^{\circ}C/s$ Max.

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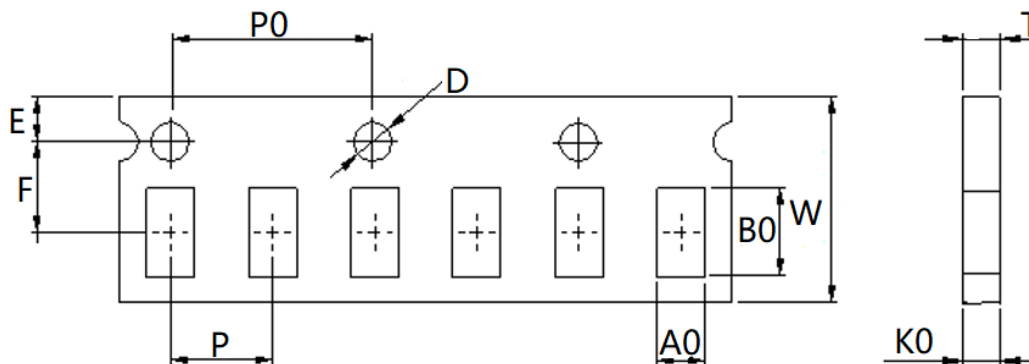
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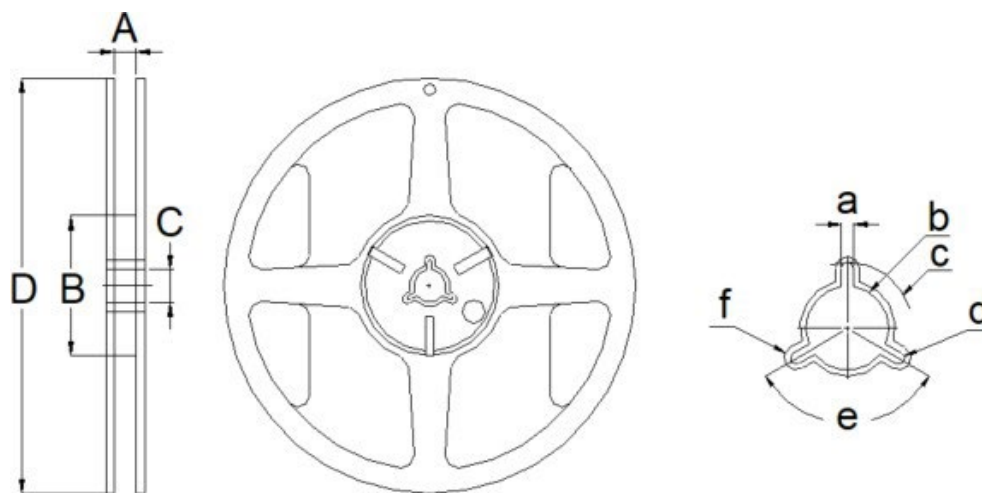
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Packaging

Tape & Reel: 1.5K pcs/reel



Series	B0	A0	K0	P	T
AFBC-SH12106P	3.60±0.10	2.90±0.10	1.65±0.10	4.00±0.10	0.23±0.05
	E	F	P0	D	W
	1.75±0.10	3.50±0.05	4.00±0.10	1.50+0.10/-0.00	8.00±0.10



A	B	C	D	a
9.0 Ref	60.0 Ref	13.5 Ref	178.0 Ref	2.0 Ref
b	c	d	e	f
13.5 Ref	R10.5	R0.5	120°	R1.9

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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