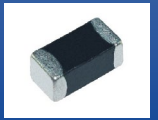


# Automotive Ferrite Chip Beads



**AFBC-Q0603**

Request Samples



Check Inventory



1.60 x 0.8 x 0.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- AEC-Q200 Qualified
- Operating Temperature: -55 ~ +150°C
- Wide range impedance
- Monolithic inorganic material construction
- Excellent heat resistance
- Current ratings up to 3A

## Applications

- Electronic control Units (ECUs)
- Battery Management Systems (BMS)
- Powertrain system
- DC/AC Converters
- Industrial connectivity (IIoT)

## Electrical Specifications

Part Number	Impedance	DC Resistance	Rated Current
Units	$\Omega \pm 25\%$	$\Omega$ Max.	mA Max.
Symbol	Z	R <sub>DC</sub>	I <sub>R</sub>
AFBC-Q0603-300	30	0.04	3000
AFBC-Q0603-800	80	0.04	3000
AFBC-Q0603-121	120	0.10	2000
AFBC-Q0603-151	150	0.10	2000
AFBC-Q0603-221	220	0.10	2000
AFBC-Q0603-301	300	0.2	1000
AFBC-Q0603-471	470	0.2	1000
AFBC-Q0603-601	600	0.2	1000

### Test Conditions and Equipment

Impedance Test Frequency: 100MHz

I<sub>R</sub>: Temperature Rise: 40°C Max. At Rated Current  $\geq 1A$ .

**Operating Temperature:** -55°C to +150°C (Including self-temperature rise)

**Storage Temperature:** <+40°C and RH 60% (Max).

**AFBC-Q0603 is RoHS Compliant and Pb free**

# Automotive Ferrite Chip Beads



**AFBC-Q0603**

Request Samples



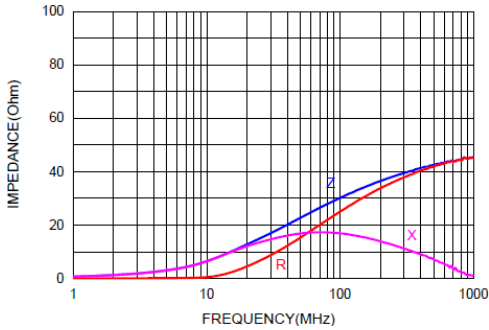
Check Inventory



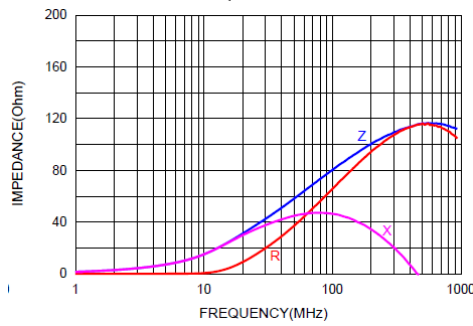
**1.60 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Electrical Specifications (Cont'd)

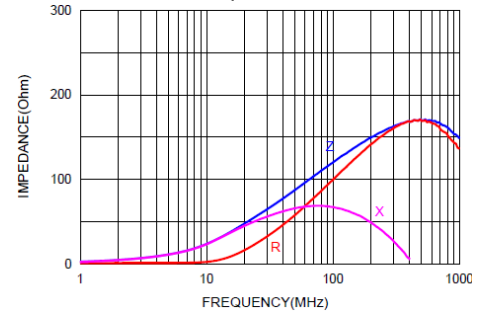
AFBC-Q0603-300



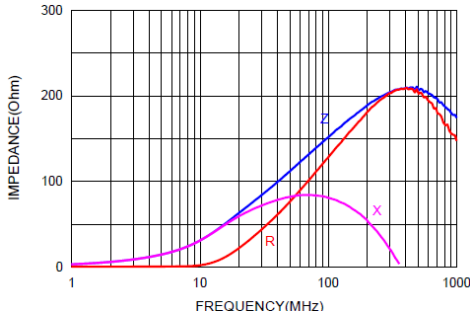
AFBC-Q0603-800



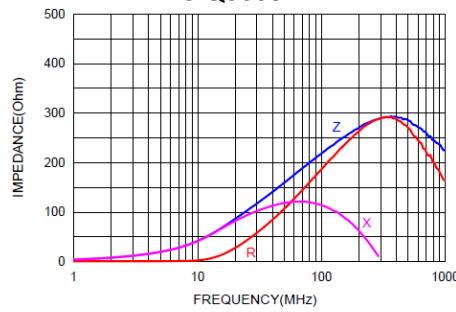
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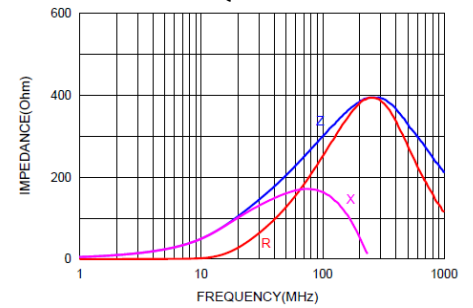
AFBC-Q0603-151



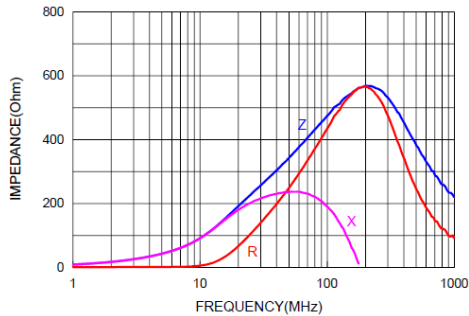
AFBC-Q0603-221



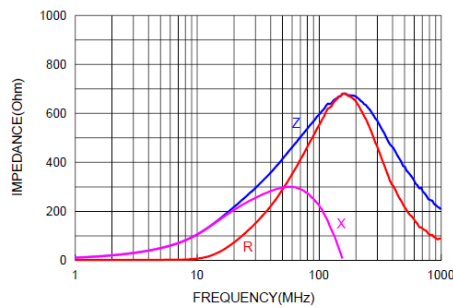
AFBC-Q0603-301



AFBC-Q0603-471



AFBC-Q0603-601



# Automotive Ferrite Chip Beads



**AFBC-Q0603**

Request Samples



Check Inventory



1.60 x 0.8 x 0.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

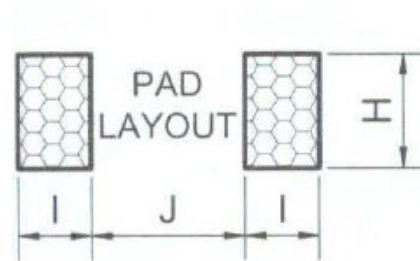
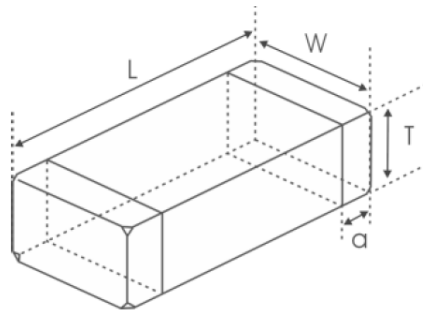
## Part Number Identification

AFBC -Q0603 -  -

**Impedance Code**  
 Please refer to the  
 Electrical Specification  
 table

**Packaging**  
 T: Tape and Reel  
 (4kpcs / reel)

## Mechanical Specifications



L	W	T	a	H	I	J
1.60±0.15	0.80±0.15	0.80±0.15	0.30±0.20	0.95 Ref.	0.80 Ref.	0.85 Ref.

**Dimension: mm**

# Automotive Ferrite Chip Beads



**AFBC-Q0603**

Request Samples

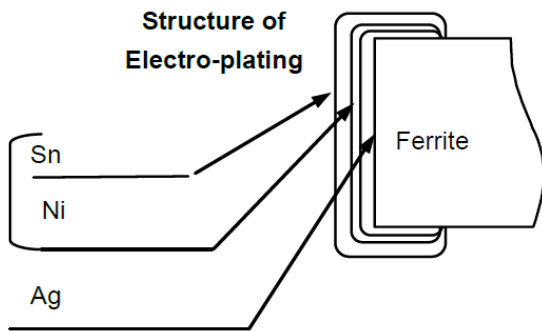


Check Inventory



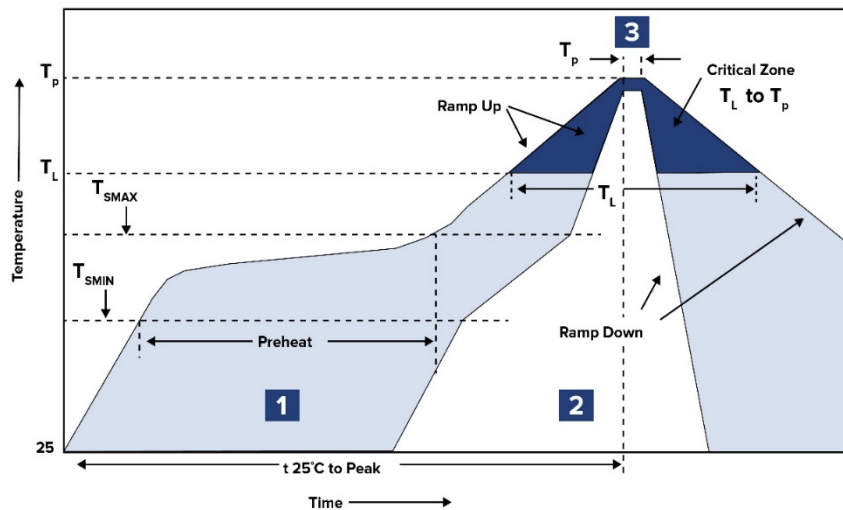
1.60 x 0.8 x 0.8 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Materials



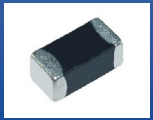
Structure Description	
1	Ferrite for Beads
2	Internal Terminal Electrode: Ag (100%)
3	Electro-plating: Ni (100%)
4	External Electro-plating: Sn (100%)

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 245°C	20 ~ 40 sec.
3	Peak heat	$T_p$ 260°C	10 sec. MAX

# Automotive Ferrite Chip Beads



**AFBC-Q0603**

Request Samples



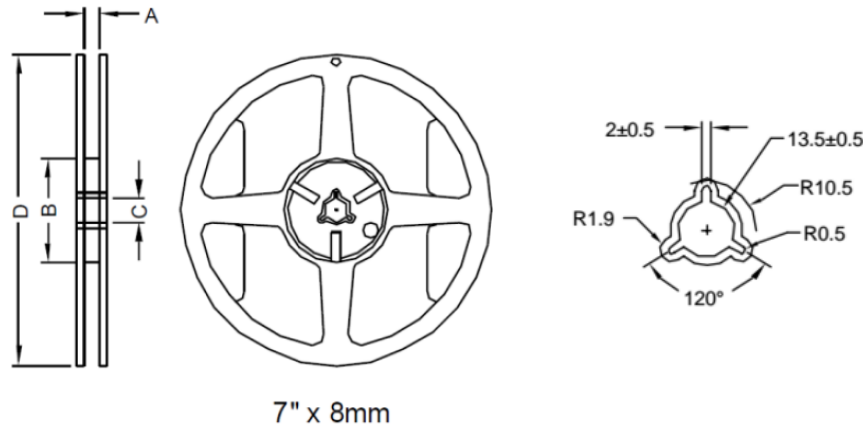
Check Inventory



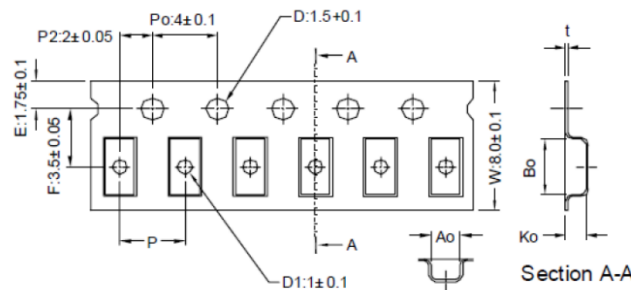
**1.60 x 0.8 x 0.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**T= Tape and reel (4,000 pcs/reel)**



Type	A	B	C	D
7"x8mm	9.0 ± 0.5	60.0 ± 2.0	13.5 ± 0.5	178.0 ± 2.0



Series	Bo	Ao	Ko	P
AFBC-Q0603	1.80 ± 0.05	0.96 ± 0.05	0.95 ± 0.05	4.00 ± 0.10

**Dimension: mm**

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