

Automotive Ferrite Chip Beads



AFBC-Q0805G

Request Samples



Check Inventory



2.00 x 1.25 x 1.25 (0.85) 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

Applications

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

Electrical Specifications

| Part Number | Impedance | DC Resistance | Rated Current | Thickness size |
|-----------------|-------------------|-----------------|----------------|----------------|
| Units | $\Omega \pm 25\%$ | Ω Max. | mA Max. | mm |
| Symbol | Z | R _{DC} | I _R | T |
| AFBC-Q0805G-300 | 30 | 0.20 | 700 | 0.85 ± 0.20 |
| AFBC-Q0805G-600 | 60 | 0.20 | 700 | 0.85 ± 0.20 |
| AFBC-Q0805G-121 | 120 | 0.25 | 600 | 0.85 ± 0.20 |
| AFBC-Q0805G-151 | 150 | 0.25 | 600 | 0.85 ± 0.20 |
| AFBC-Q0805G-221 | 220 | 0.30 | 400 | 0.85 ± 0.20 |
| AFBC-Q0805G-301 | 300 | 0.35 | 400 | 0.85 ± 0.20 |
| AFBC-Q0805G-471 | 470 | 0.40 | 400 | 1.25 ± 0.20 |
| AFBC-Q0805G-601 | 600 | 0.45 | 300 | 1.25 ± 0.20 |
| AFBC-Q0805G-102 | 1000 | 0.50 | 200 | 1.25 ± 0.20 |

Test Conditions and Equipment

Impedance Test Frequency: 100MHz

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

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

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

AFBC-Q0805G is RoHS Compliant and Pb free

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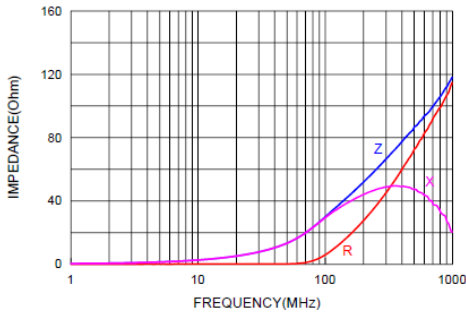
Check Inventory



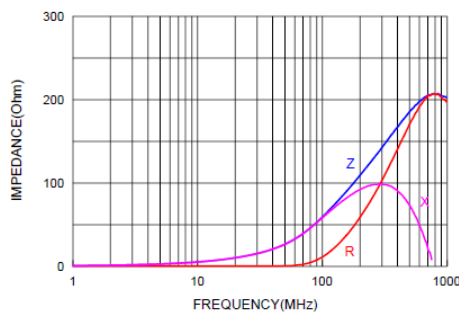
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Electrical Specifications (Cont'd)

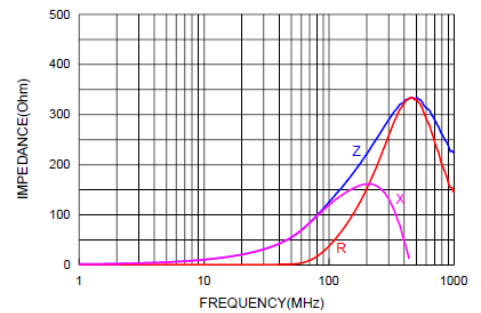
AFBC-Q0805G-300



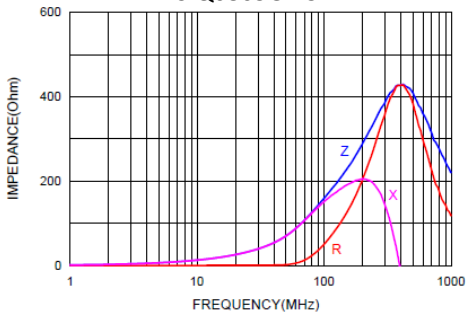
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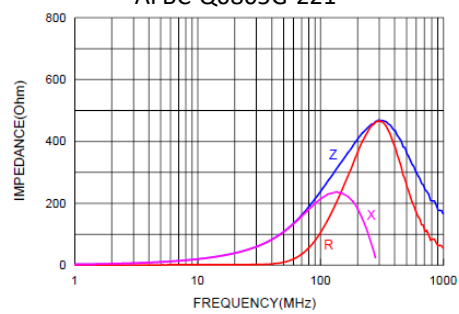
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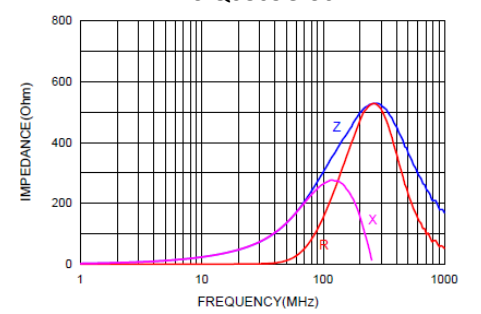
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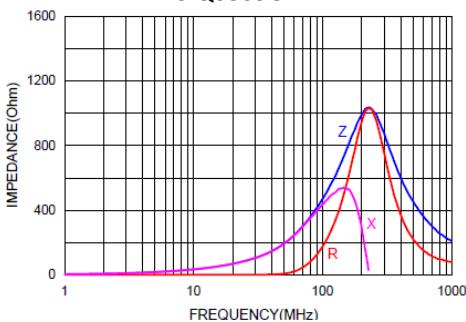
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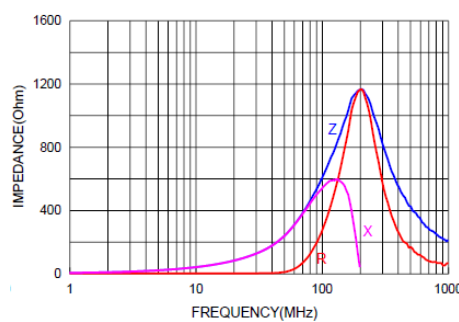
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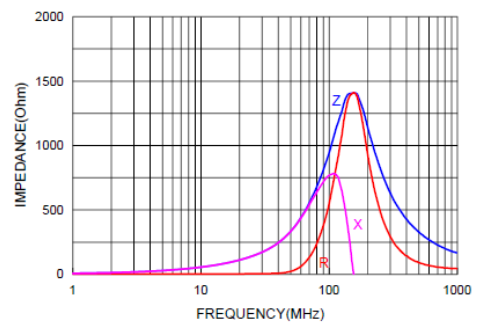
AFBC-Q0805G-471



AFBC-Q0805G-601



AFBC-Q0805G-102



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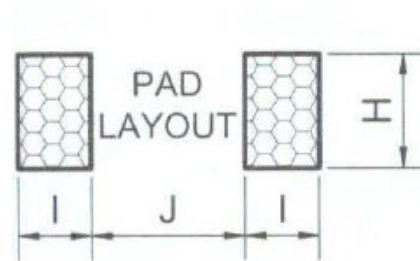
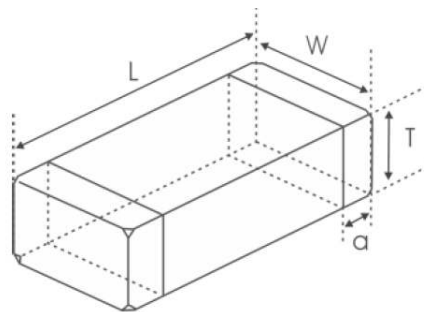
Part Number Identification

AFBC-Q0805G - -

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 |
|-----------|-----------|-------------------------|----------|-----------|-----------|-----------|
| 2.00±0.20 | 1.25±0.20 | Refer to specs table | 0.5±0.30 | 1.45 Ref. | 1.05 Ref. | 1.00 Ref. |

Dimension: mm



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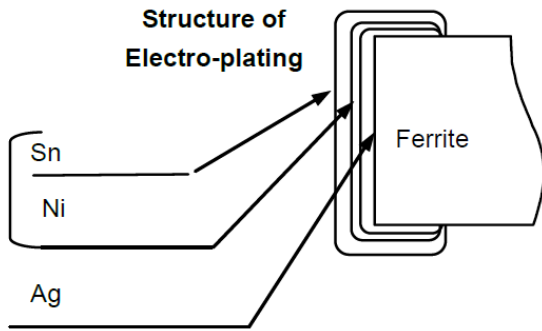


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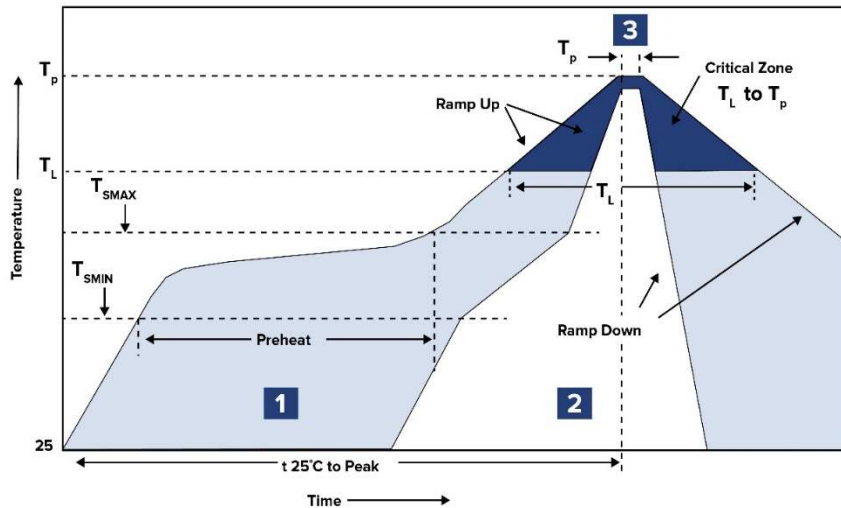
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Materials



| | 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 |

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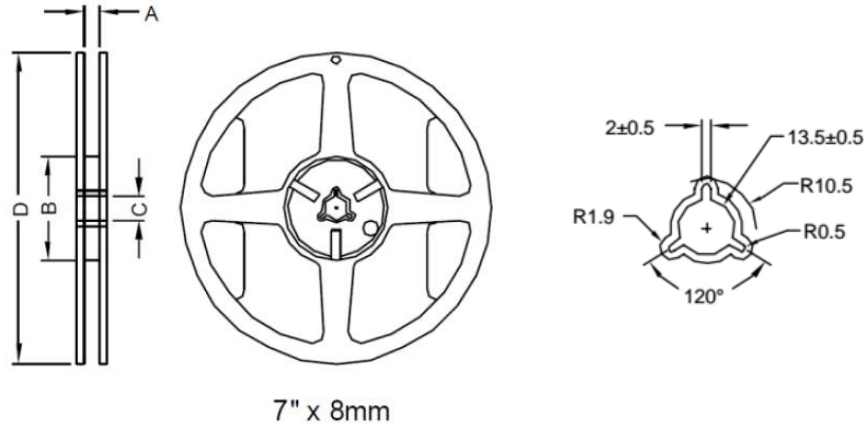
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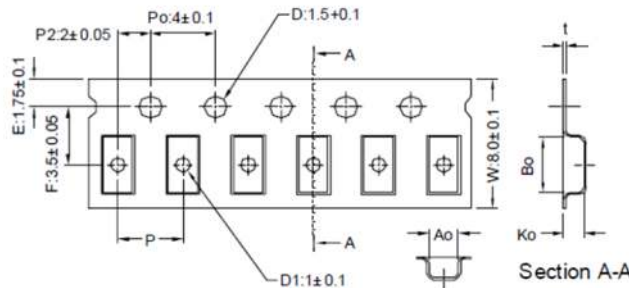
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Packaging

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 ¹ | P |
|-------------|-------------|-------------|-----------------|-------------|
| AFBC-Q0805G | 2.10 ± 0.10 | 1.30 ± 0.10 | 0.95 ± 0.05 | 4.00 ± 0.10 |

1: For parts with thickness=1.25 ± 0.20, Ko= 1.28± 0.10

Dimension: mm

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