



INPAQ

Product Specification

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Description	Drawn by	Designed by	Checked by	Approved by
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Chip Ferrite Bead for High Current (MHC-P Series) Engineering Spec.

This product belongs to the industrial grade standard, not the vehicle gauge product! Can not use auto parts, if the customer is not expressly informed and privately used to auto parts, produce any consequences, the original is not responsible for after-sales service, thank you!

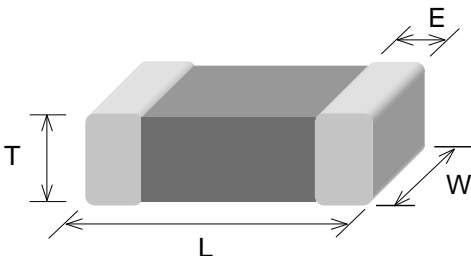
■ Features

- Combination of high frequency noise suppression with capability of handing high current
- The current rating up to 6 Amps with low DCR

■ Applications

- High current DC power lines
- Circuits where a stable ground in unavailable

■ Shapes and Dimensions



TYPE	1608(0603) T : 0.6
L	1.60±0.15
W	0.80±0.15
T	0.60±0.15
E	0.30±0.20
Unit : mm	

■ Part Number and Characteristics Table

Part No.	Impedance (Ω) +/-25%	DCR(Ω) (Max.)	Rated Current (mA)	
			85°C	125°C
MHC1608P260Z06BP6A0DG	26	0.007	6000	4000
Item	Test Method			
Impedance	<ul style="list-style-type: none"> •Agilent E4991A RF Impedance / Material Analyzer •Agilent 16192A fixture •Test Frequency : 100MHz •Test Level : 250 mV 			
DC Resistance	<ul style="list-style-type: none"> •HP4338A/B Milliohm meter 			

■ General Technical Data

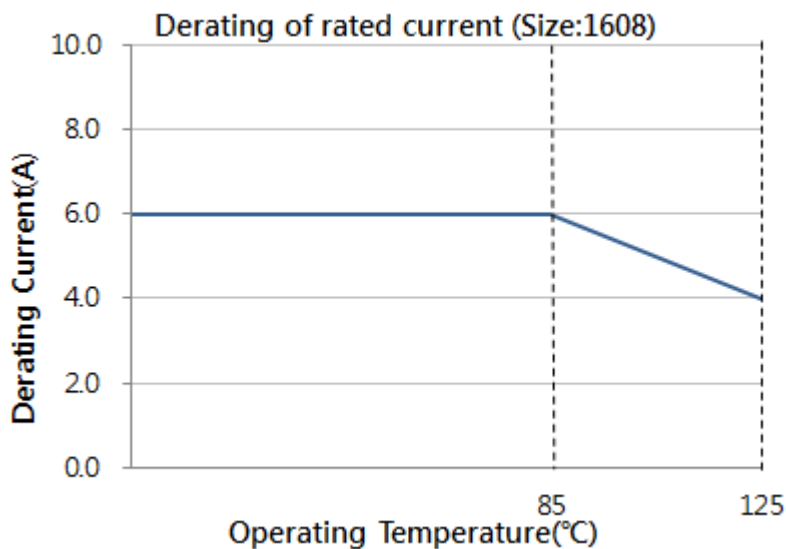
Operating temperature range : - 55°C ~ +125°C

Storage Condition : Less than 40°C and 70% RH

Storage Time : 12 months

Soldering method : Reflow

In operating temperature exceeding +85°C, derating of current is set according to the operating temperature graph as follows.



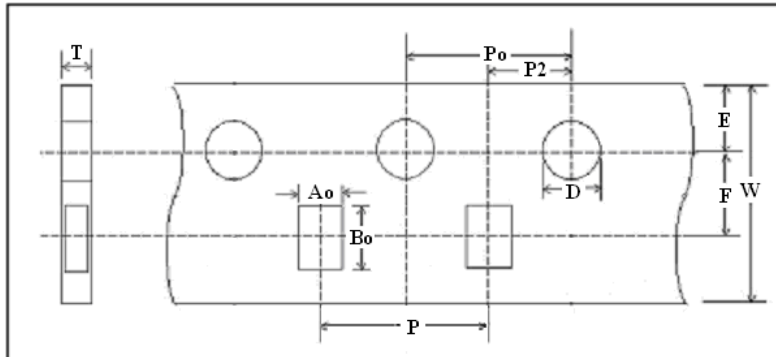
■ Part Number Code

<u>MHC</u>	<u>1608</u>	<u>P</u>	<u>26</u>	<u>0</u>	<u>Z</u>	<u>06</u>	<u>B</u>	<u>P</u>	<u>6A0</u>	<u>DG</u>
1	2	3	4	5	6	7	8	9	10	11

- 1 Series Name
- 2 Dimensions : L x W
- 3 Material Code
- 4 Impedance(Ω) $\pm 25\%$ } (Ex : $26\Omega \rightarrow 260$; $120\Omega \rightarrow 121$)
- 5 Fixed Decimal Point }
- 6 Rated Current Code
- 7 Dimensions Thickness (Null=standard ; 06=0.6mm)
- 8 Soldering : Green Parts , B=Lead-Free for whole chip
- 9 Packaging : P - Paper tape , 7" reel.
- 10 Rated Current Value : A90=900mA ; 6A0=6000Ma
- 11 INPAQ internal code

■ Tape and Reel Specifications

Paper carrier

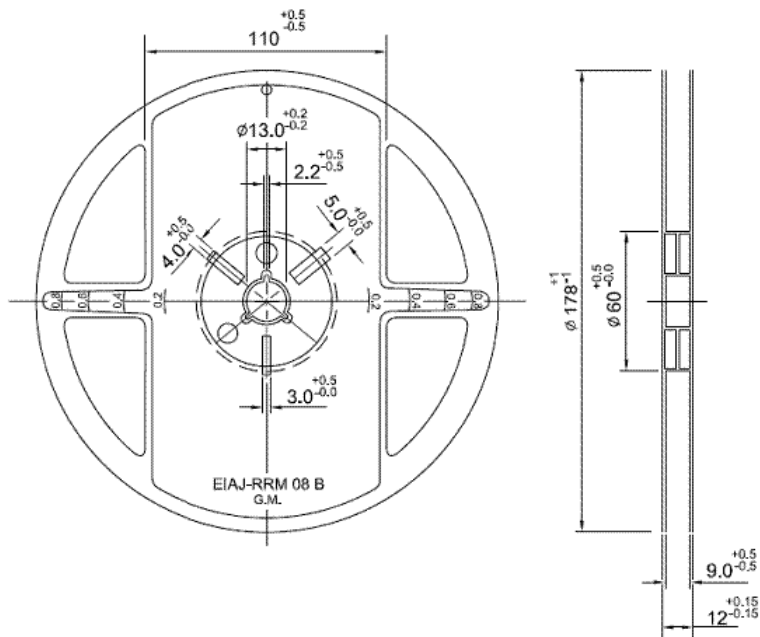


■ Taping Dimensions

Size (mm)	1608(T:06)
Symbol	Paper
W	8.00±0.10
P	4.00±0.10
E	1.75±0.10
F	3.50±0.10
D	1.56±0.10
Po	4.00±0.10
P2	2.00±0.10
Ao	0.97±0.05
Bo	1.80±0.05
Ko(T)	0.75±0.05

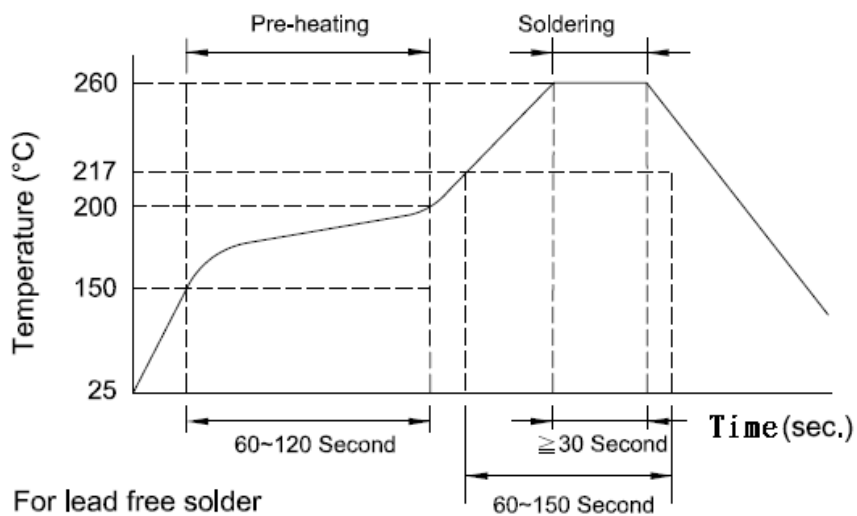
■ Reel Dimensions

Unit: mm

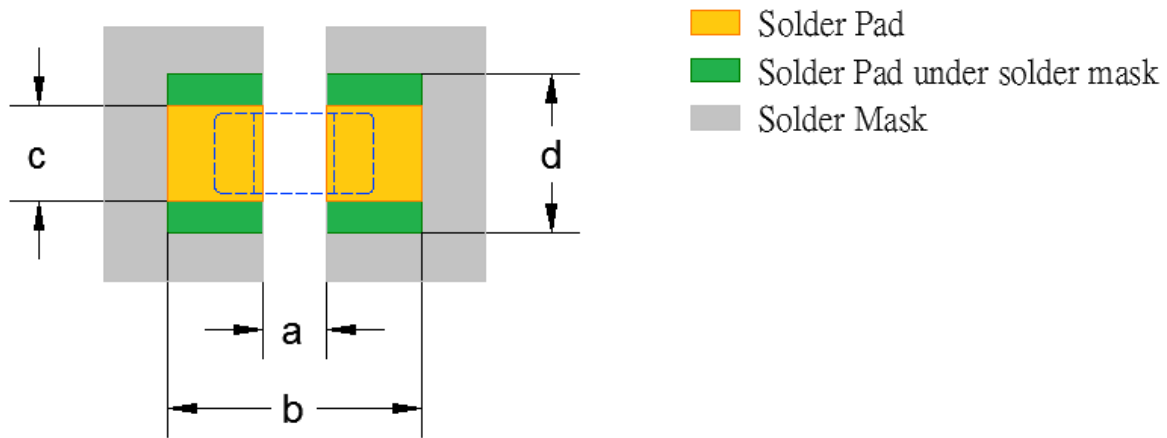


7" Reel Packaging Quantity	
Part Size (EIA Size)	1608 (0603)
Qty.(pcs)	4,000
BOX	5 reels / inner box

■ Recommended Soldering Conditions



■ Land Patterns for Reflow Soldering



■ Solder Land Information

Size (mm)	Rated current (A)	a (mm)	b (mm)	c (mm)	d (mm)		
					18um	35um	70um
1608	0.5~1.5	0.70 ~0.80	1.80 ~ 2.00	0.70	0.8	0.8	0.7
	1.7~2.5				1.3	0.8	0.7
	3~4				2.5	1.3	0.7
	5~6				6.5	3.4	1.65

※Don't apply narrower pattern than listed above might cause excessive heat or open circuit.

■ Reliability and Test Conditions

Test item	Test condition	Criteria
Temperature Cycle	<ol style="list-style-type: none"> 1. Temperature:-55 ~ 125°C For 30 minutes each 2. Cycle: 100 cycles 3. Measurement: at ambient temperature 24 hours after test completion 	<ol style="list-style-type: none"> 1. No mechanical damage 2. Impedance should be within $\pm 30\%$ of the initial value
Operational Life	<ol style="list-style-type: none"> 1. Temperature: $125 \pm 5^\circ\text{C}$ 2. Testing time: 1000 hrs 3. Applied current: Full rated current 4. Measurement: At ambient temperature 24 hours after test completion 	<ol style="list-style-type: none"> 1. No mechanical damage 2. Impedance should be within $\pm 30\%$ of the initial value
Biased Humidity	<ol style="list-style-type: none"> 1. Temperature: $40^\circ\text{C} \pm 2^\circ\text{C}$ 2. Humidity: 90-95 % RH 3. Applied current: Full rated current 4. Testing time: 1000 hrs 5. Measurement: at ambient temperature 24 hours after test completion 	<ol style="list-style-type: none"> 1. No mechanical damage 2. Impedance should be within $\pm 30\%$ of the initial value
Solderability	<ol style="list-style-type: none"> 1. Solder temperature : $235 \pm 5^\circ\text{C}$ 2. Flux : Rosin 3. DIP time : 5 ± 1 sec 	<ol style="list-style-type: none"> 1. More than 95 % of terminal electrode should be covered with new solder 2. No mechanical damage
Resistance to Solder Heat	<ol style="list-style-type: none"> 1. Solder temperature : $260 \pm 5^\circ\text{C}$ 2. Flux : Rosin 3. DIP time : 10 ± 1 sec 	<ol style="list-style-type: none"> 1. More than 95 % of terminal electrode should be covered with new solder 2. No mechanical damage 3. Impedance should be within $\pm 30\%$ of the initial value

Test item	Test condition	Criteria
<p>Adhesive Test</p>	<p>1. Reflow temperature : 245°C It shall be soldered on the substrate applying direction parallel to the substrate 2. Apply force(F) : 5 N Test time : 10 sec</p>	<p>1. No mechanical damage 2. Soldering the products on PCB after the pulling test force > 5 N</p>
<p>Rated Current</p>	<p>At ambient temperature & humidity Testing time:5 minutes (under full rated current)</p>	<p>Product surface temp : below room temperature plus 40°C</p>