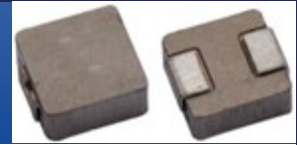


Molded Power Inductor



ASPI-0520LR Series

Request Samples



Check Inventory



5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- High saturation current.
- Low loss due to low DC resistance.
- Frequency application up to 3MHz.
- Low profile with max thickness 2.1mm.
- 100% lead free and meets RoHS standard.
- Suitable for reflow soldering.
- High reliable SMD package

Applications

- DC/DC converters.
- Power circuitry for Notebooks, Netbooks, desktops and servers.
- Low profile, high current power supplies.

Electrical Specifications

| Part Number ASPI-0520LR- Inductance Code | Inductance | Tolerance | DCR Typ | DCR Max | Saturation Current | Temperature Rise Current |
|--|---------------|-----------|------------------|------------------|-----------------------|-----------------------------|
| Units | μH | % | $\text{m}\Omega$ | $\text{m}\Omega$ | A | A |
| Symbol | L | M | | | Isat | Irms |
| ASPI-0520LR-1R0 | 1.0 | M | 16.8 | 18.5 | 8.0 | 7.5 |
| ASPI-0520LR-2R2 | 2.2 | M | 33.0 | 36.0 | 5.0 | 5.5 |
| ASPI-0520LR-3R3 | 3.3 | M | 45.0 | 50.0 | 4.2 | 4.5 |
| ASPI-0520LR-4R7 | 4.7 | M | 52.0 | 58.0 | 3.7 | 3.7 |
| ASPI-0520LR-5R6 | 5.6 | M | 65.0 | 75.0 | 3.3 | 3.5 |

Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in HP-4338B milli ohm meter.(or equivalent).
3. Isat: Based on inductance change ($\Delta L/L_0 : \leq -20\%$)
4. Irms: Based on temperature rise ($\Delta T : 40^\circ\text{C TYP.}$)

Operating Temperature

-55°C to +125°C (Including self generated heat)

Storage Temperature and Humidity

+25°C to +35°C, 45% to 85% RH

ASPI-0520LR is RoHS/RoHS II Compliant and Pb free

ASPI-0520LR is MSL level: 1

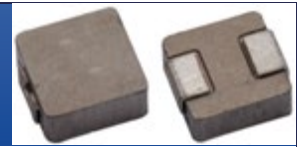


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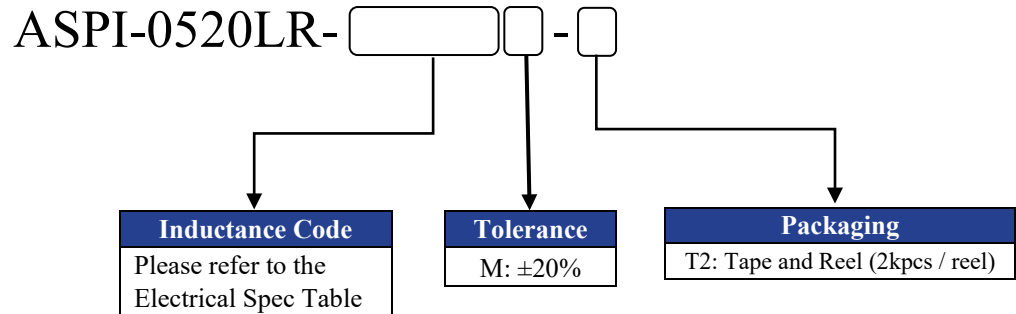


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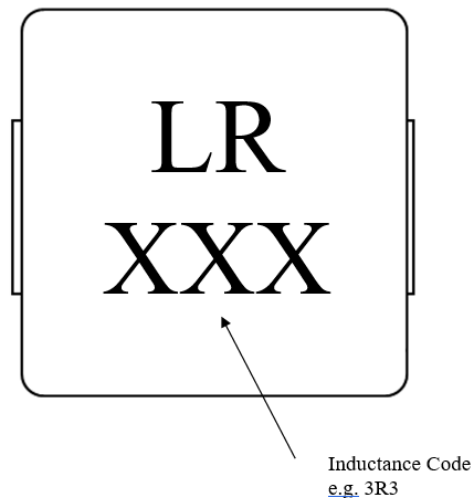


5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

Part Number Identification



Marking



Marking Method: INK

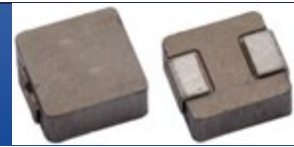


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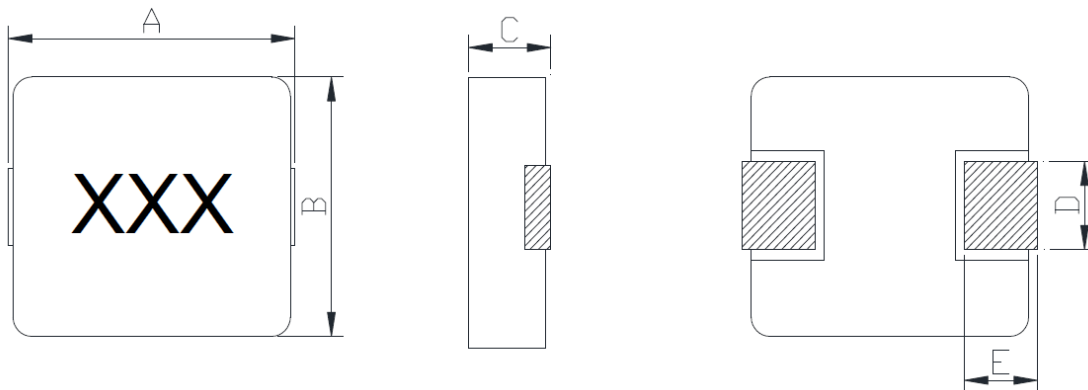


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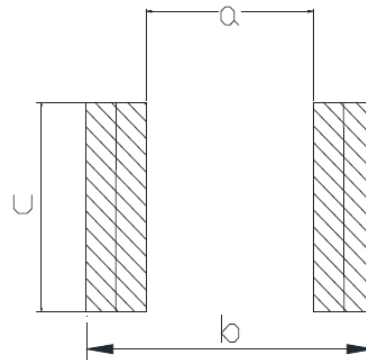


5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Mechanical Specifications



| A | B | C | D | E |
|----------|----------|---------|----------|----------|
| 5.7 ±0.3 | 5.3 ±0.4 | 2.1 MAX | 2.0 ±0.5 | 1.2 ±0.5 |



Recommended Layout

| a | b | c |
|---------|---------|---------|
| 3.0 TYP | 7.0 TYP | 2.5 TYP |

Dimension: mm

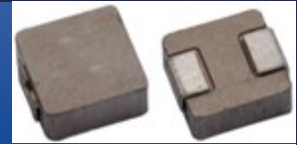


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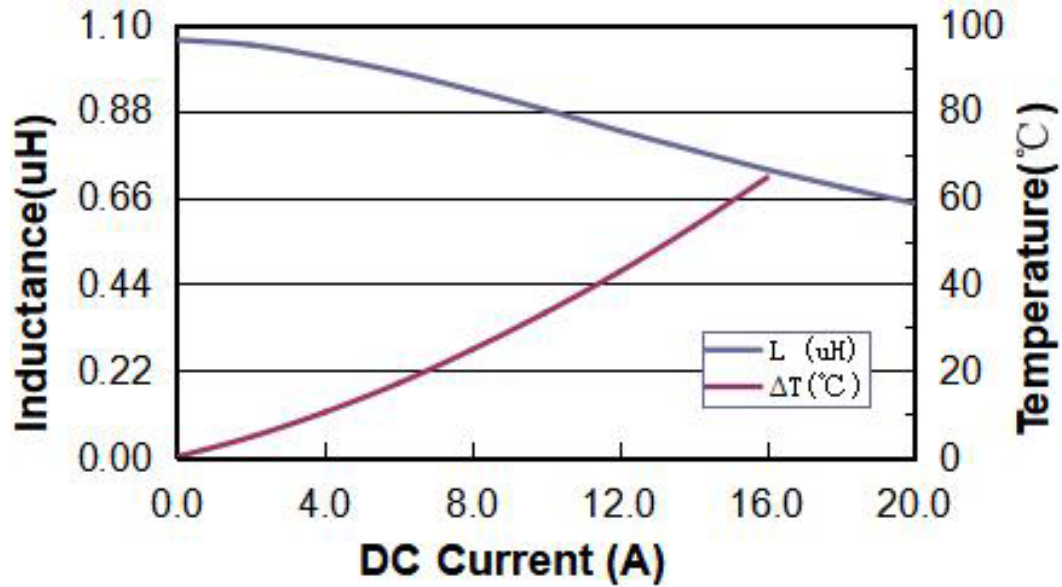
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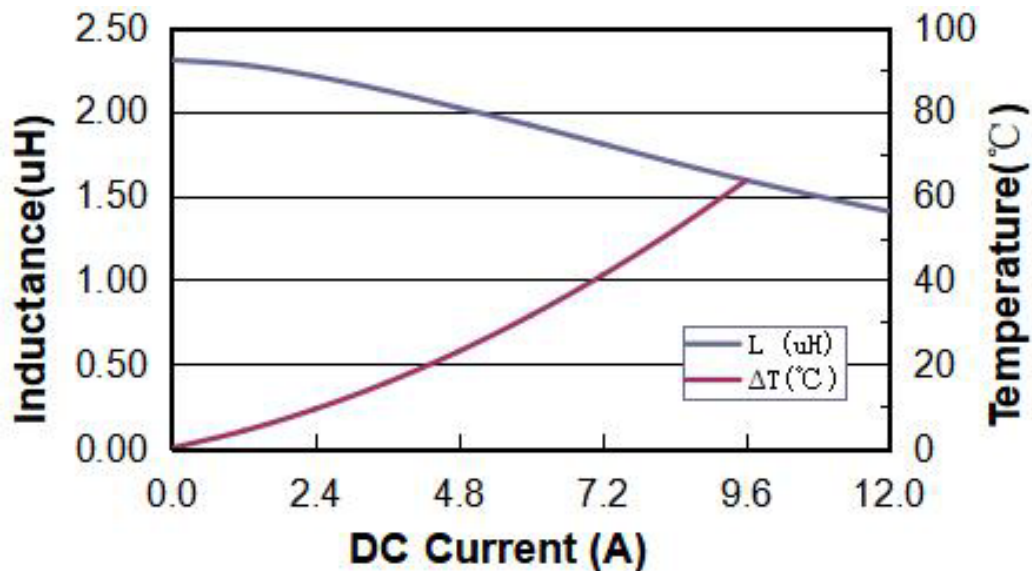
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RoHS/RoHS II Compliant
MSL Level = 1

Performance Graphs

ASPI-0520LR-1R0



ASPI-0520LR-2R2

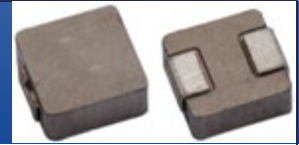


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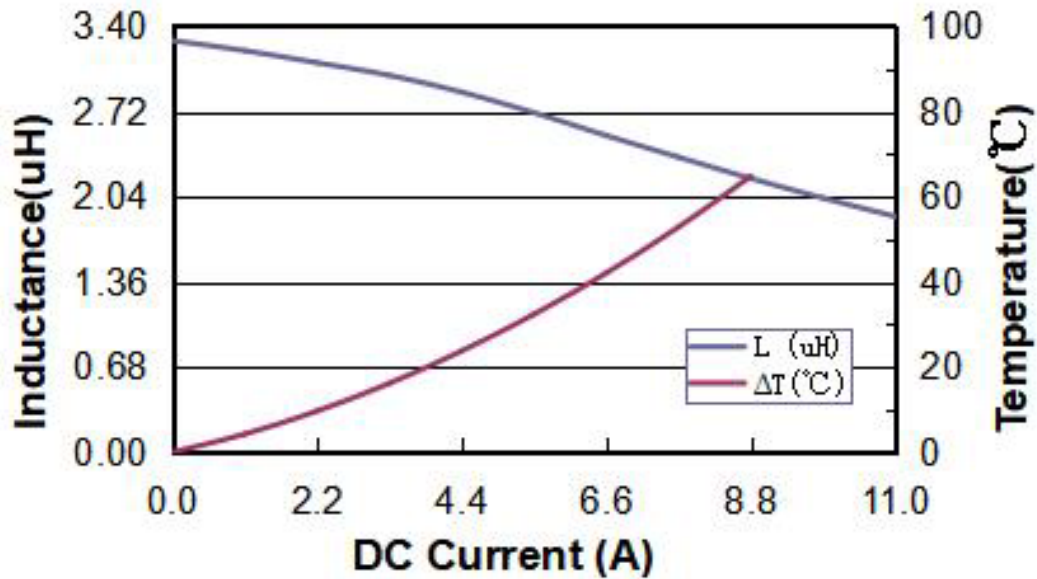


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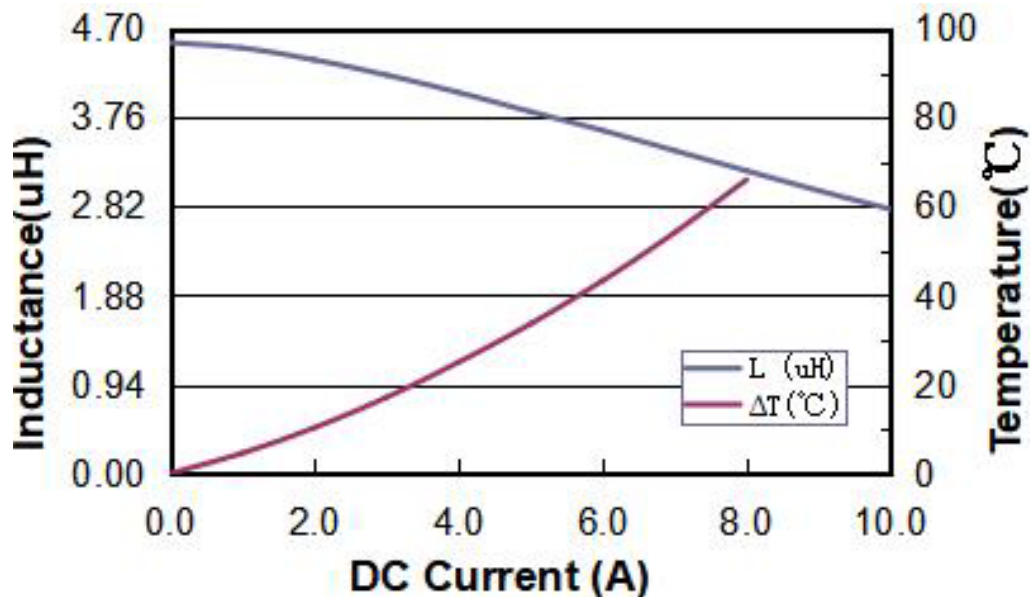


5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

ASPI-0520LR-3R3



ASPI-0520LR-4R7

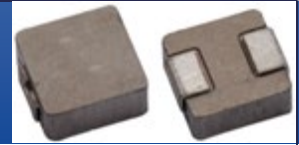


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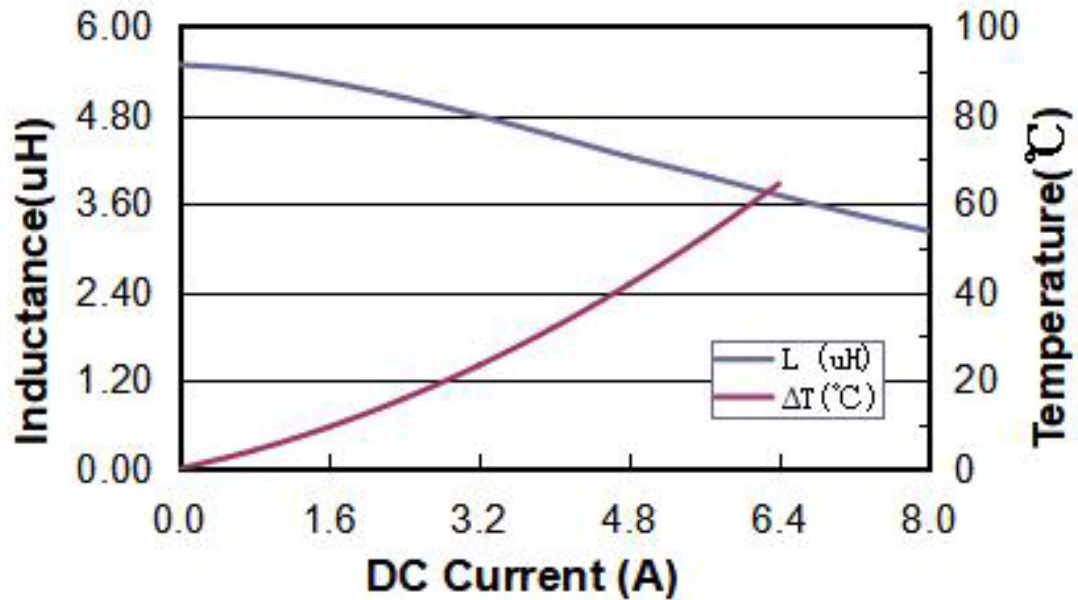


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5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

ASPI-0520LR-5R6

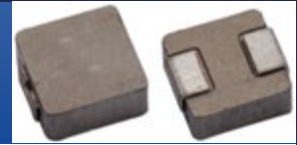


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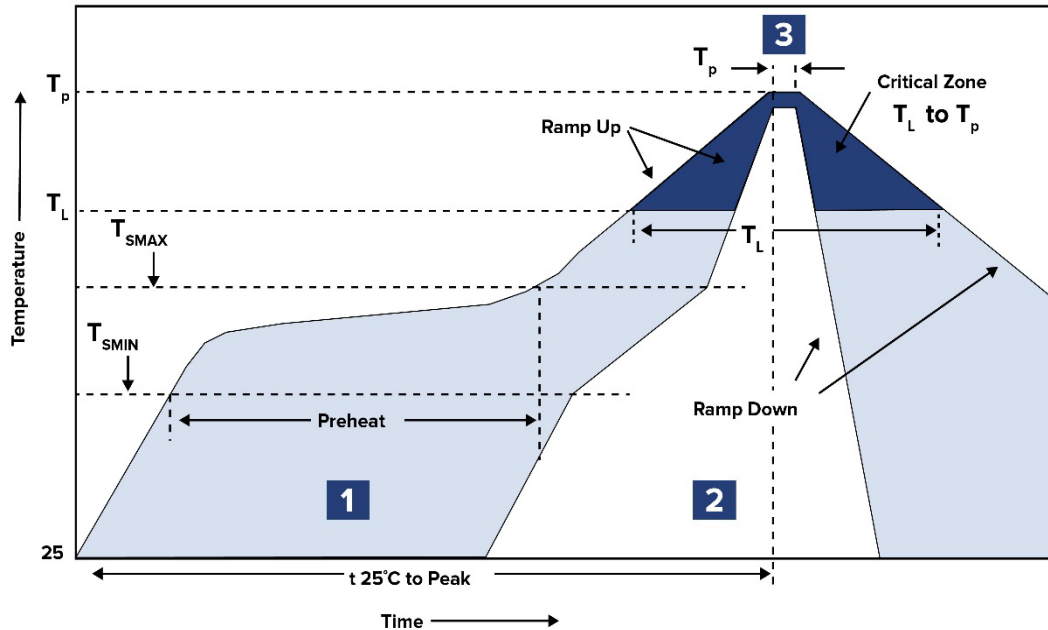


Check Inventory



5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Soldering Profile



| Zone | Description | Temperature | Times |
|------|-------------|---|---------------|
| 1 | Preheat | $T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C | 60 ~ 100 sec. |
| 2 | Reflow | T_L 200°C | 20 sec. MAX |
| 3 | Peak heat | T_P 250°C | 3 sec. MAX |



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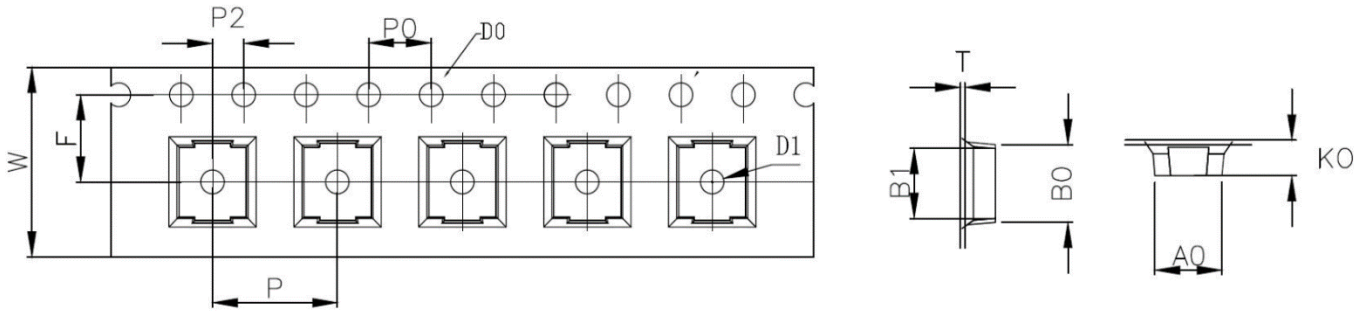
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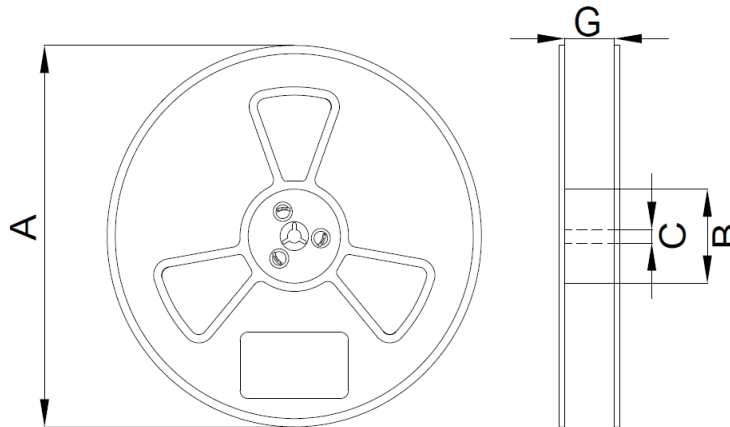
5.7 x 5.3 x 2.1 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 2,000pcs/Reel



| W | A0 | B0 | K0 | P | F | E | D0 | P0 | P2 | T |
|-----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|-----------|
| 12.0 ±0.3 | 5.7 ±0.3 | 5.9 ±0.3 | 3.4 ±0.3 | 8.0 ±0.1 | 5.5 ±0.1 | 1.75 ±0.1 | 1.5 ±0.1 | 4.0 ±0.1 | 2.0 ±0.1 | ±0.35 typ |



| A | B | C | G |
|----------|----------|-----------|-----------|
| 330 ±1.0 | 100 ±1.0 | 13.2 ±0.5 | 12.5 ±0.2 |

Dimensions: mm

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