

# Cartridge and Axial Lead Fuses

5×20mm > Medium Acting > 201P Series

## 201P Series, 5×20mm, Medium-Acting Fuse



### Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------|--------------|
|        | E67006             | 0.050A-1.25A |

### Additional Information



Datasheet



Resources



Samples



Accessories

For recommended fuse accessories for this product series, see '[Recommended Accessories](#)' section.

### Description

The 201P Series is a 5×20mm Medium-Acting, Time-lag, Glass Body Cartridge Fuse.

### Features

- Visual fault indication
- Direct solderable or plug-in versions
- Worldwide availability
- RoHS compliant and Lead-free

### Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

### Electrical Characteristics for Series

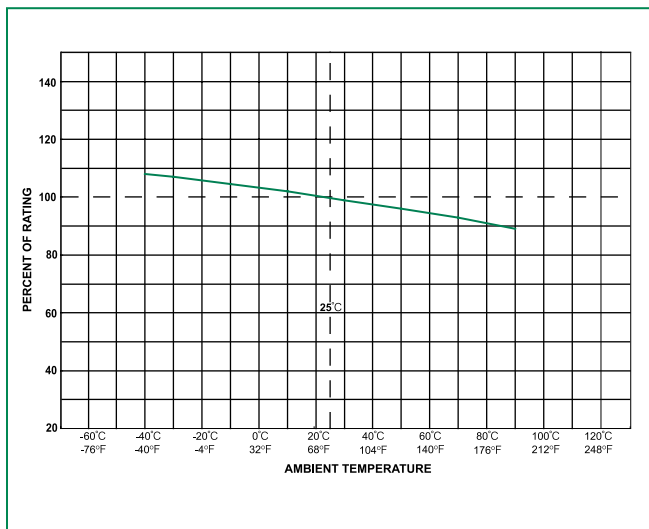
| % of Ampere Rating | Opening Time               |
|--------------------|----------------------------|
| 150                | 1 Hour Minimum             |
| 210                | 600 s Maximum              |
| 400                | 40 ms Minimum 2 s Maximum  |
| 1000               | 5 ms Minimum 90 ms Maximum |

### Electrical Characteristic Specifications by Item

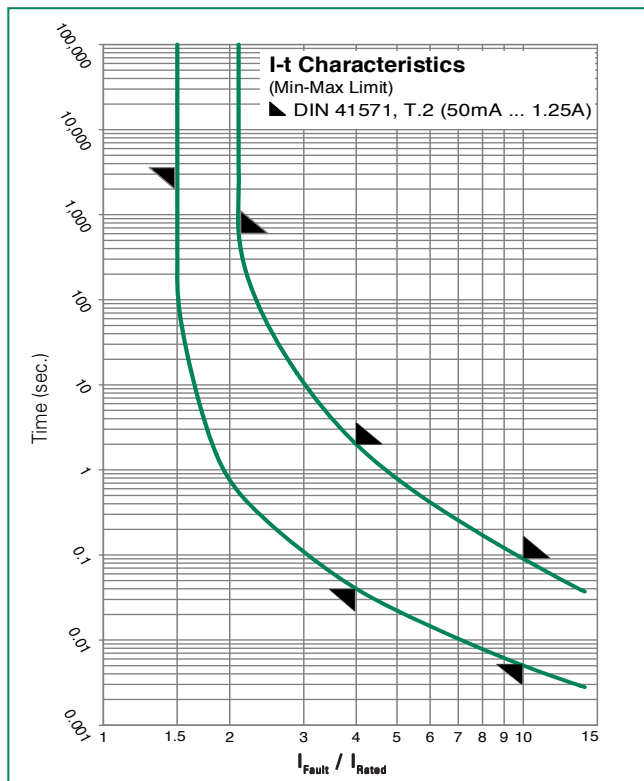
| Amp Code | Amp Rating | Voltage Rating | Interrupting Rating | Nominal Resistance Cold Ohms (mohms) | Nominal Melting Integral $10 \times I_N$ (A <sup>2</sup> s) | Voltage Drop $1.0 \times I_N$ max. (mV) | Power Dissipation $1.5 \times I_N$ max. (W) | Agency Approvals<br> |
|----------|------------|----------------|---------------------|--------------------------------------|-------------------------------------------------------------|-----------------------------------------|---------------------------------------------|----------------------|
| 0050     | 0.050      | 250V           | 80A @ 250VAC        | 9200                                 | 0.00900                                                     | 640                                     | 0.10000                                     | x                    |
| 0063     | 0.063      | 250V           |                     | 7400                                 | 0.01100                                                     | 600                                     | 0.10000                                     | x                    |
| 0080     | 0.080      | 250V           |                     | 5330                                 | 0.01700                                                     | 540                                     | 0.20000                                     | x                    |
| 0100     | 0.100      | 250V           |                     | 3550                                 | 0.03100                                                     | 500                                     | 0.20000                                     | x                    |
| 0125     | 0.125      | 250V           |                     | 2650                                 | 0.05700                                                     | 440                                     | 0.20000                                     | x                    |
| 0160     | 0.160      | 250V           |                     | 1780                                 | 0.08500                                                     | 400                                     | 0.20000                                     | x                    |
| 0200     | 0.200      | 250V           |                     | 1250                                 | 0.12000                                                     | 340                                     | 0.30000                                     | x                    |
| 0250     | 0.250      | 250V           |                     | 870                                  | 0.13000                                                     | 320                                     | 0.30000                                     | x                    |
| 0315     | 0.315      | 250V           |                     | 590                                  | 0.16000                                                     | 300                                     | 0.30000                                     | x                    |
| 0400     | 0.400      | 250V           |                     | 435                                  | 0.28000                                                     | 230                                     | 0.40000                                     | x                    |
| 0500     | 0.500      | 250V           |                     | 160                                  | 0.35000                                                     | 210                                     | 0.40000                                     | x                    |
| 0630     | 0.630      | 250V           |                     | 130                                  | 0.80900                                                     | 190                                     | 0.50000                                     | x                    |
| 0800     | 0.800      | 250V           |                     | 85                                   | 1.10000                                                     | 170                                     | 0.60000                                     | x                    |
| 1100     | 1.000      | 250V           |                     | 70                                   | 2.00000                                                     | 160                                     | 0.70000                                     | x                    |
| 1125     | 1.250      | 250V           |                     | 50                                   | 5.12000                                                     | 160                                     | 0.80000                                     | x                    |

Note: 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

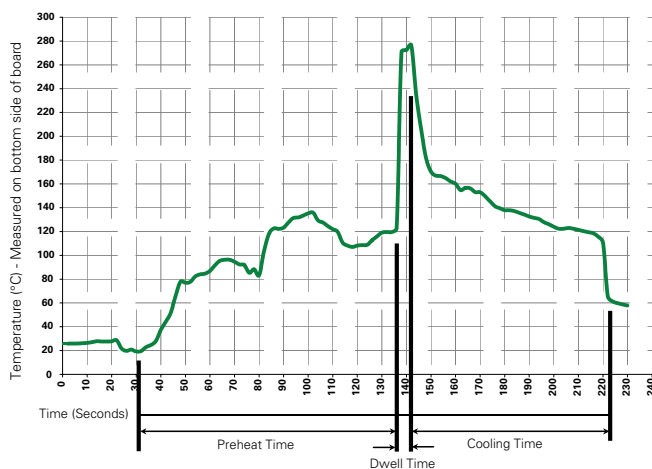
### Temperature Re-rating Curve



### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

| Wave Parameter                           | Lead-Free Recommendation          |
|------------------------------------------|-----------------------------------|
| <b>Preheat:</b>                          |                                   |
| (Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                     | 100°C                             |
| Temperature Maximum:                     | 150°C                             |
| Preheat Time:                            | 60-180 seconds                    |
| <b>Solder Pot Temperature:</b>           | 260°C Maximum                     |
| <b>Solder Dwell Time:</b>                | 2-5 seconds                       |

### Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5 seconds max.

**Note:** These devices are not recommended for IR or Convection Reflow process.

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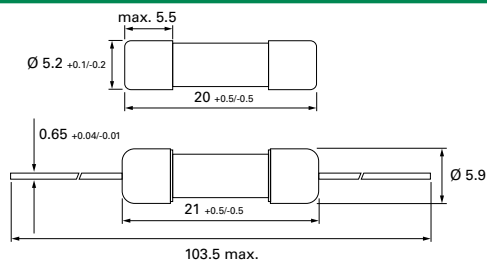
## 5×20mm > Medium Acting > 201P Series

### Product Characteristics

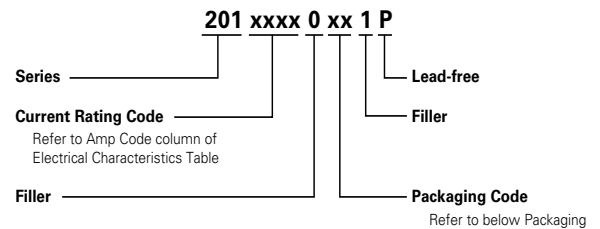
|                                  |                                                                                                          |
|----------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Materials</b>                 | Body: Glass<br>End Caps: Nickel-plated brass<br>Optional Holders: Nickel-plated caps<br>Tin-plated wires |
| <b>Product Marking</b>           | Cap1: Brand mark, current and voltage ratings<br>Cap2: Series and agency approval marks                  |
| <b>Solderability</b>             | MIL-STD-202, Method 208                                                                                  |
| <b>Soldering Heat Resistance</b> | 260°C, 10 sec. (IEC 60068-2-20)                                                                          |

|                              |                                                                                                                      |
|------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | -25°C to +70°C                                                                                                       |
| <b>Climatic Category</b>     | -25°C/+70°C/21 days (IEC 60068-1-3)                                                                                  |
| <b>Stock Conditions</b>      | -10°C to +60°C RH,<br>≤ 75% yearly average, without dew,<br>maximum value for 30 days-95%                            |
| <b>Vibration Resistance</b>  | 24 cycles at 15 min. each<br>(IEC 60068-2-6)<br>10 - 60 Hz at 0.75 mm amplitude<br>60 - 2000 Hz at 10 g acceleration |

### Dimensions



### Part Numbering System



### Packaging

| Packaging Code | Fuse Type           | Packing Option                     | Quantity |
|----------------|---------------------|------------------------------------|----------|
| 00             | Cartridge Type Fuse | Bulk                               | 1000     |
| 02             | Cartridge Type Fuse | Bulk                               | 100      |
| 30             | Cartridge Type Fuse | Bulk with Four Color Code          | 1000     |
| 43             | Axial Lead Fuse     | Tape and Reel                      | 1250     |
| 53             | Axial Lead Fuse     | Tape and Reel with Four Color Code | 1250     |

### Recommended Accessories

| Accessory Type | Series                  | Description                                                               | Max Application Voltage | Max Application Amperage |
|----------------|-------------------------|---------------------------------------------------------------------------|-------------------------|--------------------------|
| Holder         | <a href="#">345_ISF</a> | Panel Mount Shock-Safe Fuseholder                                         | 250                     | 10                       |
|                | <a href="#">345</a>     | Shock-Safe Fuseholder with PC Mount, Solder Mount and Panel Mount options |                         | 20                       |
|                | <a href="#">830</a>     | PC Mount Shock-Safe Miniature Fuseholder                                  |                         | 16                       |
| Block          | <a href="#">520</a>     | Metric OMNI-BLOK® Fuse Block                                              |                         | 10                       |
|                | <a href="#">646</a>     | PC Mount Miniature Fuse Block                                             |                         | 6.3                      |
|                | <a href="#">658</a>     | Surface Mount Miniature Fuse Block                                        |                         | 10                       |
| Clip           | <a href="#">520_W</a>   | PC Mount Miniature Fuse Clip                                              |                         | 6.3                      |
|                | <a href="#">111</a>     | PC Board Mount Fuse Clip                                                  |                         | 10                       |
|                | <a href="#">445</a>     | PC Board Mount Fuse Clip                                                  |                         | 10                       |

Notes:  
1. Do not use in applications above rating.  
2. Please refer to fuseholder data sheet for specific re-rating information.  
3. Please contact factory for applications greater than the max voltage and amperage shown.

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