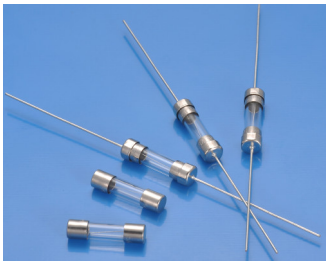


# 521 Miniature Cartridge Fuse



## Main Characteristics

Miniature Cartridge fuse; Fast-Acting(F)

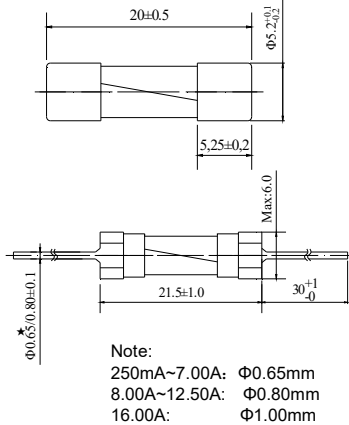
## Standard

IEC 60127-2/ II

## Materials

Tube: Glass Tube  
End Caps: Nickel-plated brass  
Axial Leads: Nickel-plated caps  
Tin-plated copper wires

Dimensions (units in mm)



## Operating Temperature

-55°C to +125°C

## Storage Conditions

+10°C to +60°C  
Relative humidity:  $\leq 75\%$  yearly average  
without dew, maximum 30 days at 95%

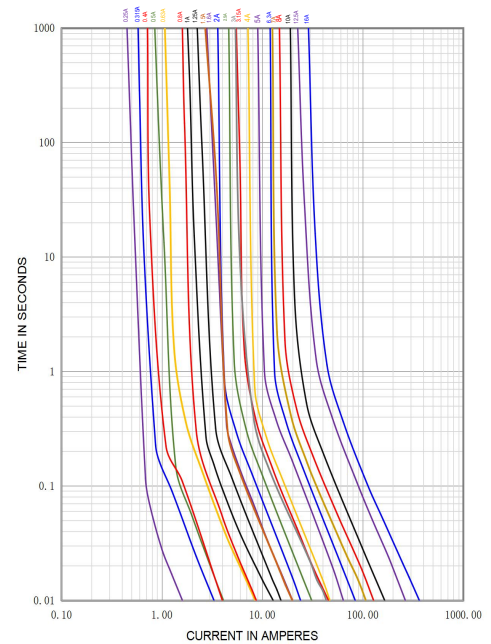
## Vibration Resistance

24 cycles at 15 min. each (60068-6)  
10-60Hz at 0.75mm amplitude  
60-2000Hz at 10g acceleration

## Soldering Parameters

260°C.  $\leq 5$  sec (Wave Soldering)  
350°C.  $\leq 3$  sec (Hand Soldering)  
Soldering Peak:  
260°C. 10 sec. (IEC 60068-20)

Average Current Curve(I-T Curve)



Time vs Current Characteristics: IEC 60127-2/ II

| Rated Current | 150%   | 210%   | 275%    | 400%       | 1000%              |
|---------------|--------|--------|---------|------------|--------------------|
| 250mA~6.3A    | >1h    | <30min | 50ms~2s | 10ms~300ms | $\leq 20\text{ms}$ |
| 8A~10A        | >1h    | <30min | 50ms~2s | 10ms~400ms | $\leq 40\text{ms}$ |
| 12.5A~16A     | >30min | <30min | 50ms~3s | 10ms~600ms | $\leq 80\text{ms}$ |



Electrical Characteristics at 25°C

| Amp Code | Rated Current | Rated Voltage      | Voltage Drop Max(mV) | Max Power Dissipation (W) | Typical Code Resistance (mΩ) | Nominal Melting I <sup>2</sup> T (A <sup>2</sup> sec) | Breaking Capacity            | Approvals |     |     |     |     |
|----------|---------------|--------------------|----------------------|---------------------------|------------------------------|-------------------------------------------------------|------------------------------|-----------|-----|-----|-----|-----|
|          |               |                    |                      |                           |                              |                                                       |                              | cURus     | CQC | VDE | PSE | CCC |
| 0250     | 250mA         | 125V AC<br>250V AC | 1400                 | 1.6                       | 570                          | 0.026                                                 | 10KA/125V AC<br>100A/250V AC | ○         | ○   | ○   | ○   | ○   |
| 0315     | 315mA         |                    | 1300                 | 1.6                       | 860                          | 0.109                                                 |                              | ●         | ○   | ●   | ○   | ●   |
| 0400     | 400mA         |                    | 1200                 | 1.6                       | 540                          | 0.240                                                 |                              | ●         | ○   | ○   | ○   | ●   |
| 0500     | 500mA         |                    | 1000                 | 1.6                       | 220                          | 0.168                                                 |                              | ●         | ○   | ●   | ○   | ●   |
| 0630     | 630mA         |                    | 650                  | 1.6                       | 285                          | 0.723                                                 |                              | ●         | ○   | ●   | ○   | ●   |
| 0800     | 800mA         |                    | 240                  | 1.6                       | 120                          | 0.757                                                 |                              | ●         | ○   | ●   | ○   | ●   |
| 1100     | 1.00A         |                    | 200                  | 1.6                       | 101                          | 1.64                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1125     | 1.25A         |                    | 200                  | 1.6                       | 65.0                         | 2.56                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1150     | 1.50A         |                    | 190                  | 1.6                       | 51.47                        | 3.76                                                  |                              | ●         | ○   | ○   | ○   | ○   |
| 1160     | 1.60A         |                    | 190                  | 1.6                       | 50.35                        | 4.00                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1200     | 2.00A         |                    | 170                  | 1.6                       | 40.65                        | 5.76                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1250     | 2.50A         |                    | 170                  | 1.6                       | 30.00                        | 9.61                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1300     | 3.00A         |                    | 150                  | 2.5                       | 25.00                        | 13.9                                                  |                              | ●         | ○   | ○   | ○   | ○   |
| 1315     | 3.15A         |                    | 150                  | 2.5                       | 24.00                        | 20.7                                                  |                              | ●         | ○   | ○   | ●   | ●   |
| 1400     | 4.00A         |                    | 130                  | 2.5                       | 17.60                        | 22.1                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1500     | 5.00A         |                    | 130                  | 2.5                       | 13.50                        | 41.0                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1630     | 6.30A         |                    | 130                  | 2.5                       | 10.60                        | 70.6                                                  |                              | ●         | ○   | ●   | ●   | ●   |
| 1700     | 7.00A         |                    | 130                  | 2.5                       | 9.48                         | 106                                                   |                              | ●         | ○   | ○   | ○   | ○   |
| 1800     | 8.00A         |                    | 130                  | 4                         | 7.50                         | 164                                                   |                              | ●         | ●   | ●   | ●   | ○   |
| 2100     | 10.00A        |                    | 130                  | 4                         | 6.30                         | 272                                                   |                              | ●         | ●   | ●   | ●   | ○   |
| 2125     | 12.50A        |                    | 100                  | 6                         | 3.80                         | 702                                                   |                              | ○         | ●   | ○   | ○   | ○   |
| 2160     | 16.00A        |                    | 100                  | 6                         | 3.10                         | 1332                                                  |                              | ○         | ●   | ○   | ○   | ○   |

**Note:** (1) Permissible continuous operating current is 100% at ambient temperature of 23°C (73.4°F)

(2) The cURus certification by 125V and 250V; the VDE certification with 8A~10A by 125V and 250V; the others certification by 250V.

(3) The current values used for calculating I<sup>2</sup>T should be within the standard range of 8ms ~ 10ms.

## Ordering Information

| Series | Amp Code | Supplementary Code | Qty |
|--------|----------|--------------------|-----|
| 521    |          |                    |     |