

# CB61F

## Fast-acting surface mount Brick™ fuses



### Product features

- High Interrupting Ratings: 50A @ 125Vac / 300A @ 125Vdc
- Wide Selection: ratings from 2 to 15 amps providing a range of solutions for applications requiring fast-acting performance
- CQC Approved: Meets the growing market demand.
- cULus Certified and PSE Level 1 Certified
- Excellent Environmental Integrity: lead-free, halogen free and RoHS compliant, and present no disposal issues at end of life.
- Solder immersion compatible
- Wire-in-Air design

### Agency information

- cULus: Standard UL 248-14, Guide JDYX, File E 19180 and Guide JDYX7, File E19180
- PSE: JET 1641-31007-1003 (2A-5A), JET 1641-31007-1004 (6.3A-10A), JET 1641-31007-1005 (12-15A)
- CQC: CQC09012040316 (2A-6.3A & 8A-10A)

### Ordering

- Specify product and packaging code

### Applications

Primary circuit protection:

- LCD/PDP TVs
- Notebooks
- Telecom/PoE
- Industrial applications
- LCD Monitors
- Servers
- Medical equipment
- LCD backlight inverters
- Power supplies
- White goods

### Environmental data

- Mechanical Shock: MIL-STD-202G, Method 213B, Test Condition C (100 G's peak for 6 milliseconds; half-sine waveform)
- Mechanical Vibration: MIL-STD-202G, Method 201, Test Condition A (10-55Hz, 0.06 inch, total excursion)
- Insulation Resistance: MIL-STD-202, Method 302, Test Condition A (after opening) 10,000 ohms minimum
- Resistance to Solder Heat: MIL-STD-202G, Method 210F, Test Condition D (10 sec, at 260°C); Test Condition A (350°C, 5s) for hand solder
- Thermal Shock: MIL-STD-202, Method 107G, Test Condition B (-65°C to +125°C)

| Specifications |                        |                 |     |                              |        |                               |                                         |                            |                  |     |     |
|----------------|------------------------|-----------------|-----|------------------------------|--------|-------------------------------|-----------------------------------------|----------------------------|------------------|-----|-----|
| Catalog Number | Current Ratings (amps) | Voltage Ratings |     | Interrupting Ratings (amps)* |        | Typical Cold Resistance (Ω)** | Typical Melting I <sub>t</sub> (A's)*** | Typical Voltage Drop (mV)† | Agency Approvals |     |     |
|                |                        | Vac             | Vdc | 125Vac                       | 125Vdc |                               |                                         |                            | cULus            | PSE | CQC |
| CB61F2A        | 2                      | 125             | 125 | 100                          | 300    | 0.039                         | 0.85                                    | 100                        | X                | X   | X   |
| CB61F3A        | 3                      | 125             | 125 | 100                          | 300    | 0.025                         | 2.08                                    | 100                        | X                | X   | X   |
| CB61F4A        | 4                      | 125             | 125 | 100                          | 300    | 0.017                         | 4.4                                     | 93                         | X                | X   | X   |
| CB61F5A        | 5                      | 125             | 125 | 100                          | 300    | 0.013                         | 7.7                                     | 90                         | X                | X   | X   |
| CB61F6.3A      | 6.3                    | 125             | 125 | 100                          | 300    | 0.010                         | 13.7                                    | 90                         | X                | X   | X   |
| CB61F7A        | 7                      | 125             | 125 | 100                          | 300    | 0.009                         | 15.6                                    | 85                         | X                | X   |     |
| CB61F8A        | 8                      | 125             | 125 | 100                          | 300    | 0.008                         | 19.5                                    | 90                         | X                | X   | X   |
| CB61F10A       | 10                     | 125             | 125 | 100                          | 300    | 0.006                         | 36                                      | 90                         | X                | X   | X   |
| CB61F12A       | 12                     | 125             | 125 | 50                           | 300    | 0.005                         | 40                                      | 90                         | X                | X   |     |
| CB61F15A       | 15                     | 125             | 125 | 50                           | 300    | 0.004                         | 56                                      | 85                         | X                | X   |     |

\* AC Interrupting Rating (measured at designated voltage, 100% power factor); DC Interrupting Rating (measured at designated voltage, time constant of less than 50 microseconds, battery source)

\*\* Typical Cold Resistance (measured at 10% of rated current)

\*\*\* Typical Melting I<sub>t</sub> (measured with a battery bank at rated DC voltage, 10x-rated current, time constant of calibrated circuit less than 50 microseconds)

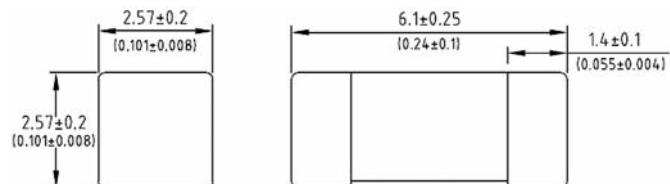
† Typical Voltage Drop (measured at rated current after temperature stabilizes)



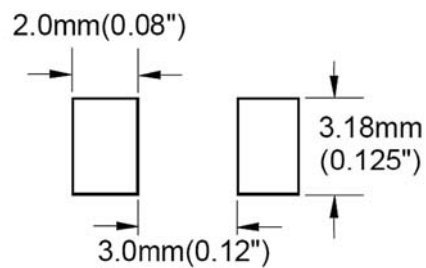
Powering Business Worldwide

## Dimensions - mm

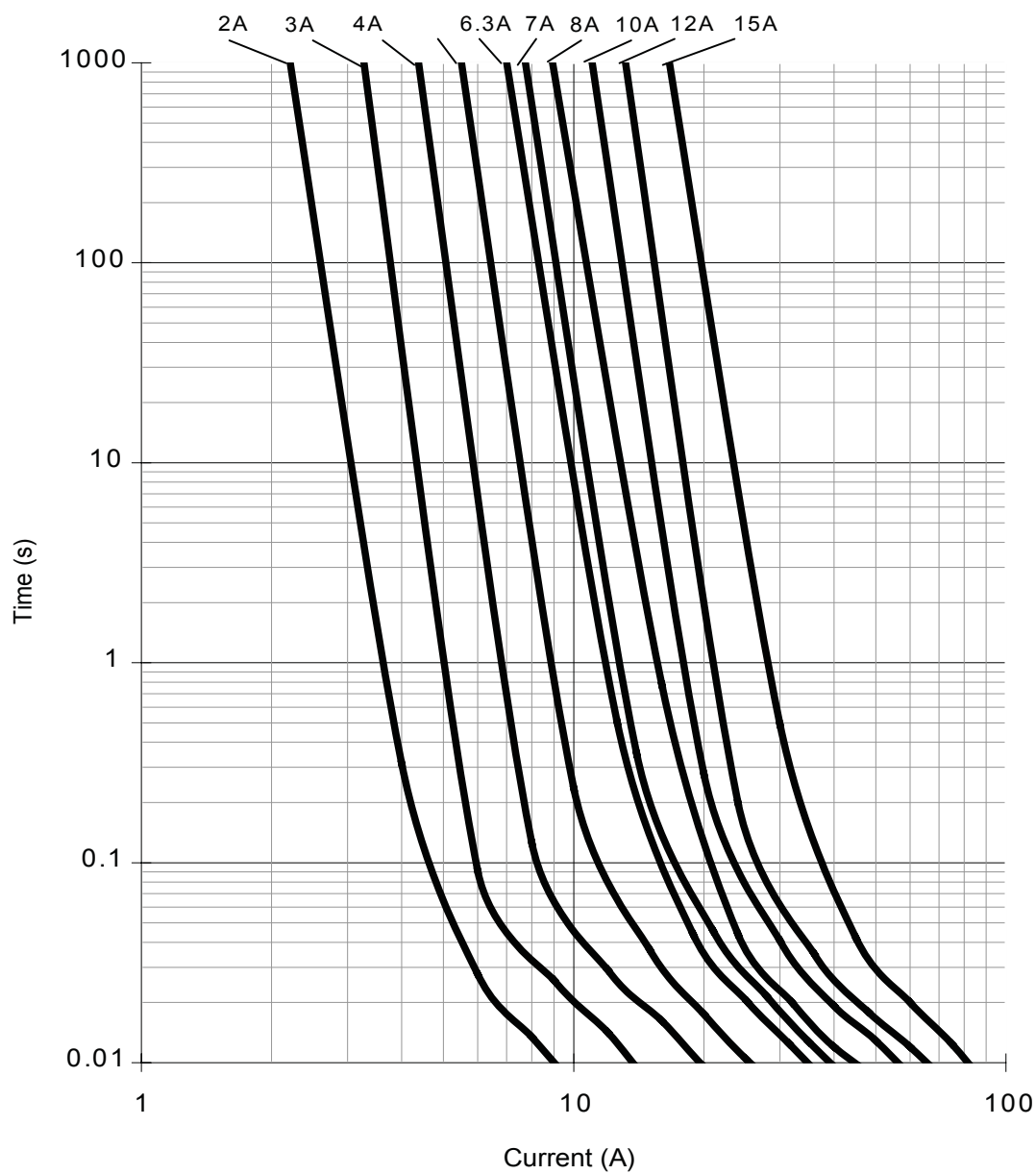
Drawing Not to Scale



## Recommended Pad Layout



## Time-Current Curves



Soldering Characteristics

Wave Immersion

- Reservoir Temperature: 260° C
- Time in Reservoir : 10 Seconds Maximum

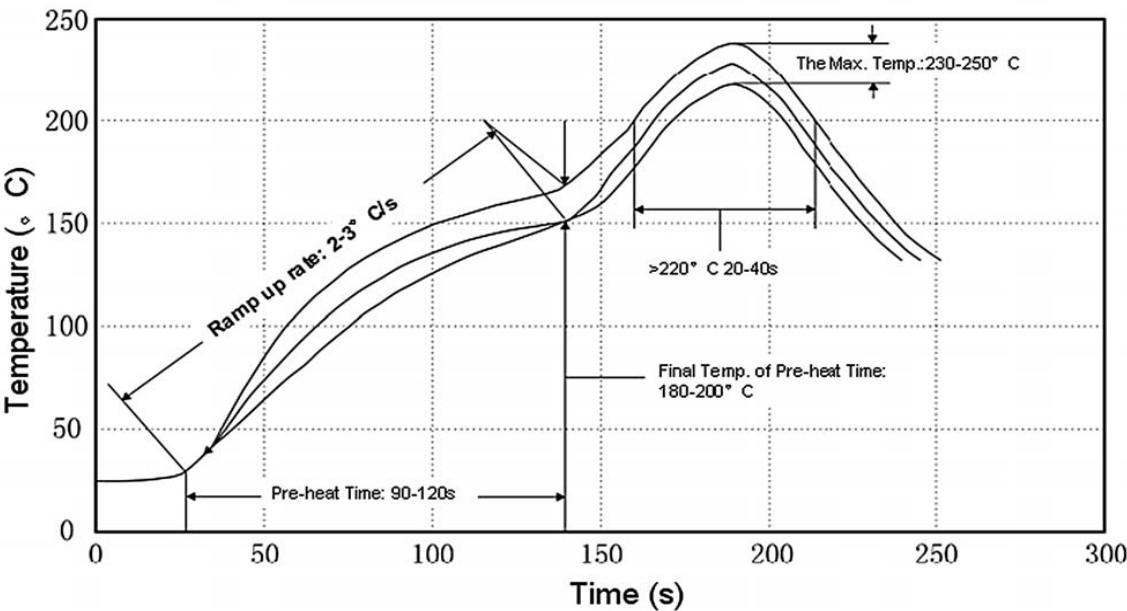
Infrared Reflow

- Temperature: 260° C
- Time: 30 Seconds Maximum

Hand Soldering

- Maximum tip temperature: 350°C
- Maximum soldering time: 5 seconds max

Recommend Reflow Profile



| Packaging Code        |                                                              |
|-----------------------|--------------------------------------------------------------|
| Packaging Code Suffix | Description                                                  |
| -TR1                  | 1000 Fuses in Tape and Reel on 7 inch (178mm) diameter reel  |
| -TR2                  | 5000 Fuses in Tape and Reel on 13 inch (330mm) diameter reel |

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin.

**Eaton**  
**Electronics Division**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
[www.eaton.com/electronics](http://www.eaton.com/electronics)

© 2017 Eaton  
All Rights Reserved  
Printed in USA  
Publication No. 4377 BU-SB111447  
May 2017