

# 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)

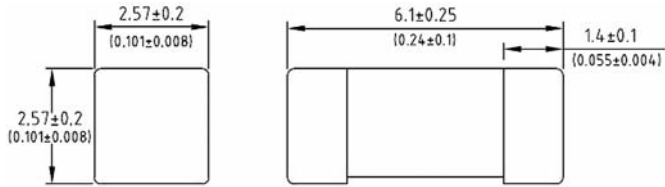
† Typical Voltage Drop (measured at rated current after temperature stabilizes)



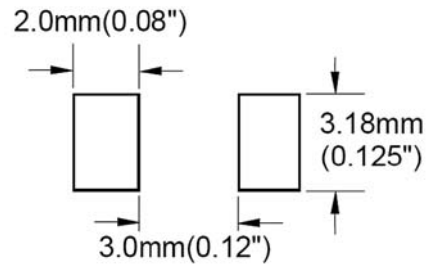
Powering Business Worldwide

### Dimensions - mm

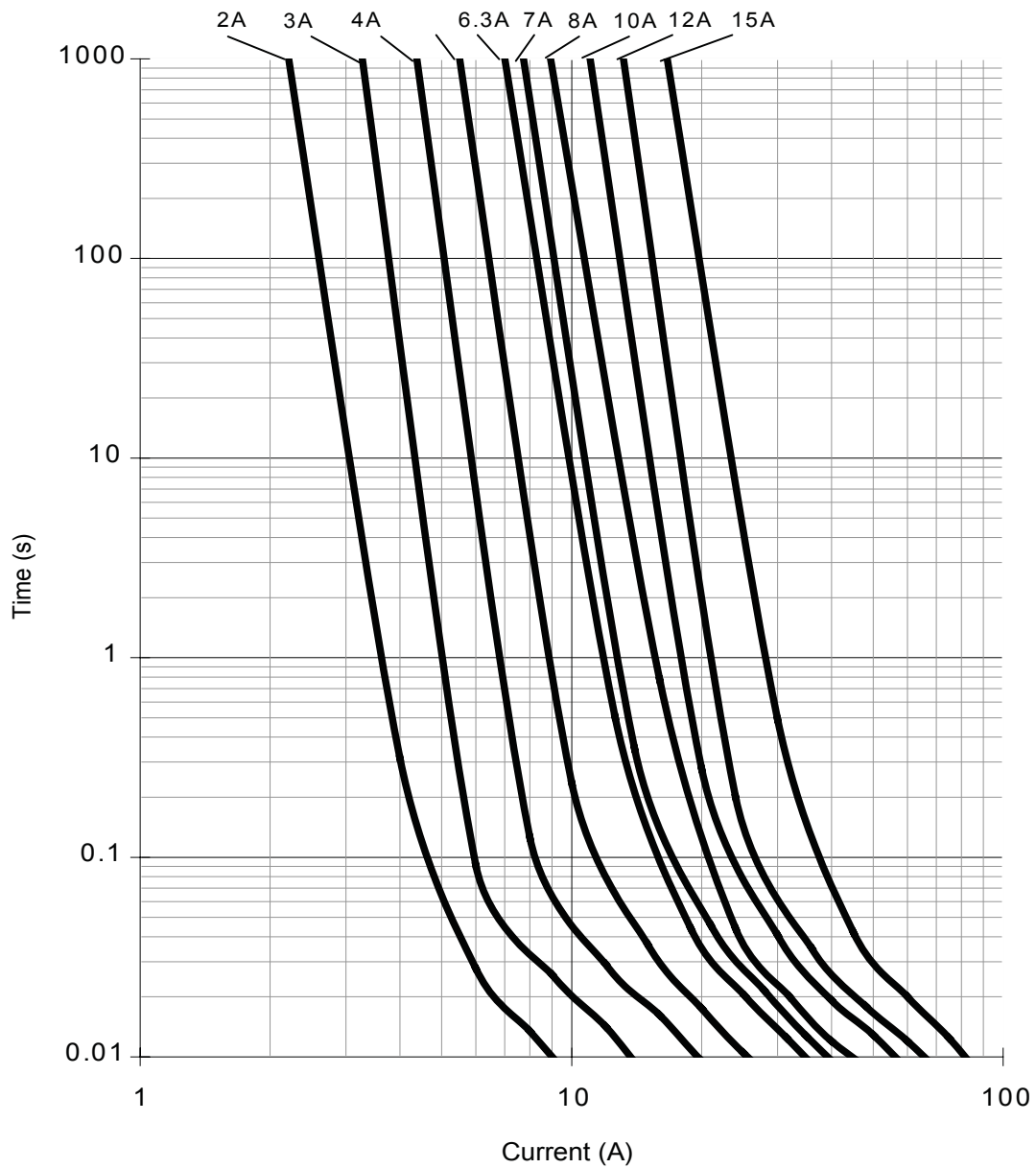
Drawing Not to Scale



### Recommended Pad Layout



### Time-Current Curves



Soldering Characteristics

Wave Immersion

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

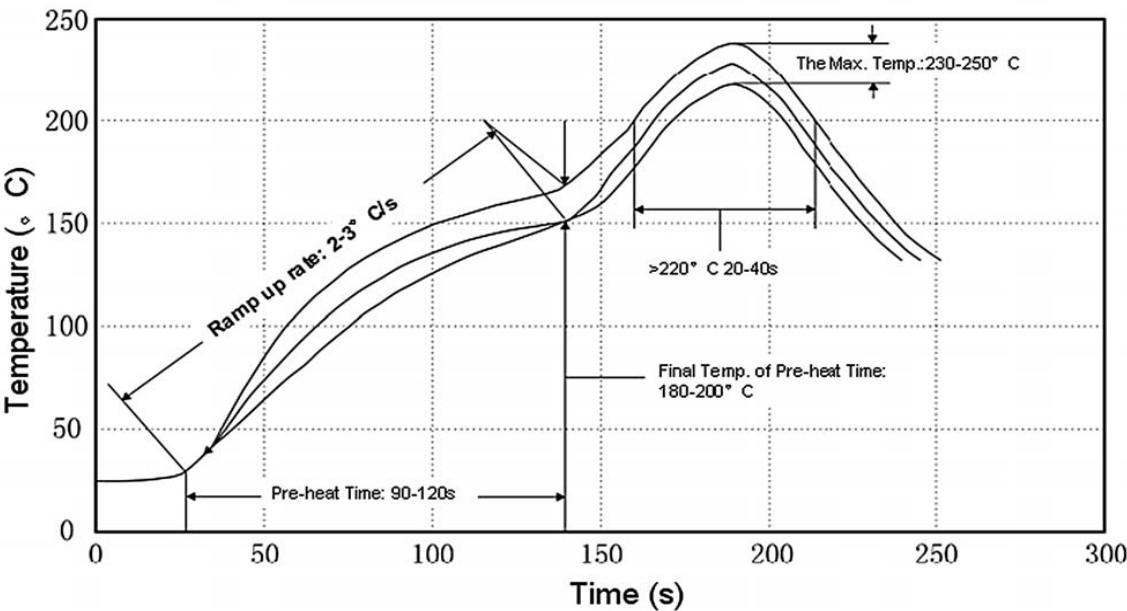
Infrared Reflow

- 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 |

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