

# Fast-Acting SMD Brick<sup>™</sup> Fuses CB61F Series









## Description

The fast-acting CB61F Series of SMD Brick<sup>™</sup> fuse provides high breaking capacity performance in a CQC Approved SMD package. The CB61F Series offers 125Vac/50A and 125Vdc/300A protection up to 15 amps, which is among the highest in its class.

#### **Features**

- High Interrupting Ratings: 50A @ 125Vac / 300A @ 125Vdc
- Wide Selection: The CB61F Series is available in 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

#### **Applications**

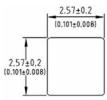
- LCD/PDP TVs
- LCD Monitors
- · LCD backlight inverters

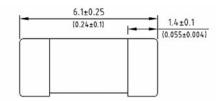
- Notebooks
- Servers
- · Power supplies

- Telecom/PoE
- Medical equipment
- White goods

# Industrial applications

## Dimensions - mm Drawing Not to Scale





# **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

#### **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

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 Thermal Shock: MIL-STD-202, Method 107G, Test Condition B (-65°C to +125°C)

Specifications Specification Specif											
	Current	Gurrent Voltage		Interrupting		Typical Cold	Typical	Typical	Agency		
Catalog	Ratings	Ratings		Ratings (amps)*		Resistance	Melting	Voltage	Approvals		
Number	(amps)	Vac	Vdc	125Vac	125Vdc	(Ω)**	I2t (A2s)***	Drop (mV):	cULus	PSE	CQC
CB61F2A	2	125	125	100	300	0.039	0.85	100	X	Х	Х
CB61F3A	3	125	125	100	300	0.025	2.08	100	Х	Х	Х
CB61F4A	4	125	125	100	300	0.017	4.4	93	Х	Х	Х
CB61F5A	5	125	125	100	300	0.013	7.7	90	Х	Х	Х
CB61F6.3A	6.3	125	125	100	300	0.010	13.7	90	Х	Х	Х
CB61F7A	7	125	125	100	300	0.009	15.6	85	Х	Χ	
CB61F8A	8	125	125	100	300	0.008	19.5	90	X	Х	X
CB61F10A	10	125	125	100	300	0.006	36	90	X	Χ	X
CB61F12A	12	125	125	50	300	0.005	40	90	Х	Х	
CB61F15A	15	125	125	50	300	0.004	56	85	Х	Х	

<sup>\*</sup> 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)

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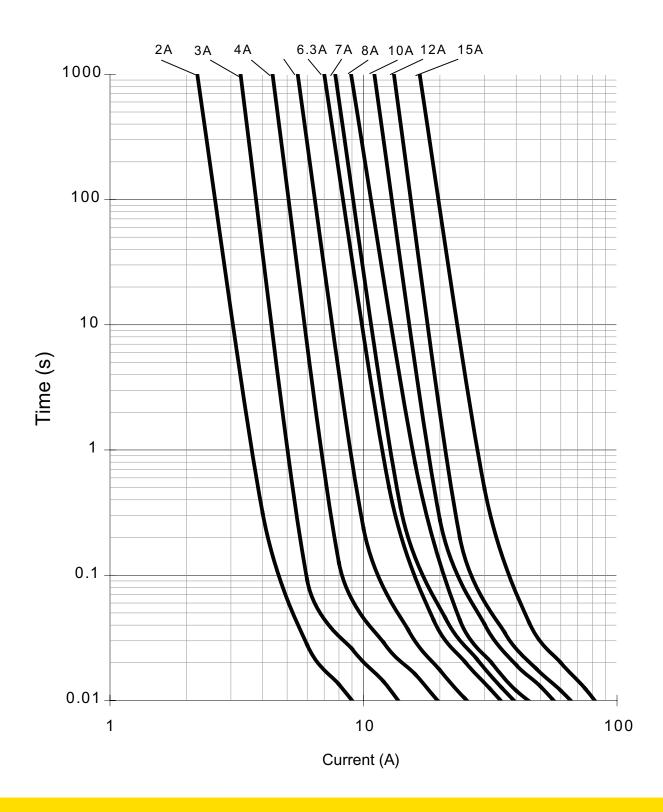
<sup>\*\*</sup> Typical Cold Resistance (measured at 10% of rated current)

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

<sup>‡</sup> Typical Voltage Drop (measured at rated current after temperature stabilizes)



# **Time-Current Curves**



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# **Soldering Characteristics**

## **Wave Immersion**

• Reservoir Temperature: 260° C

• Time in Reservoir: 10 Seconds Maximum

#### Infrared Reflow

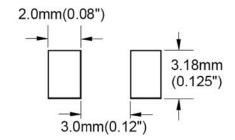
Temperature: 260° C
Time: 30 Seconds Maximum

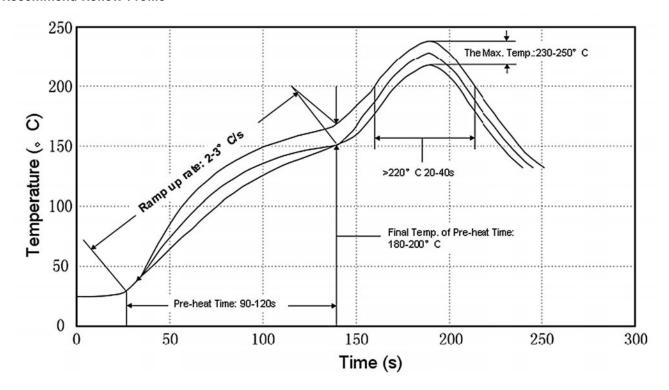
#### Hand Soldering

Maximum tip temperature: 350°CMaximum soldering time: 5 seconds max

# **Recommend Reflow Profile**

# **Recommended Pad Layout**





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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