

# Brick™ Fuses

## 1025FA Series, Fast-Acting

### Description

- Fast-acting surface-mount fuse
- Satisfies the EIA/IS-722 Standard
- Solder immersion compatible

| Electrical Characteristics |                    |
|----------------------------|--------------------|
| % of Amp Rating            | Opening Time       |
| 100%                       | 4 Hours Minimum    |
| 200% (250mA-5A)            | 5 Seconds Maximum  |
| 250% (250mA-5A fuse)       | 1 Second Maximum   |
| 200% (7-15A fuse)          | 20 Seconds Maximum |
| 250% (7-15A fuse)          | 4 Seconds Maximum  |

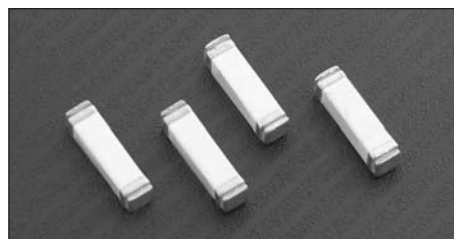
Note: 30vdc constant current source required for 200% overload tests on 250mA-1A.

### Agency Information

- UL Recognition Guide & File numbers:  
JDYX2 & E19180 (250mA - 15A)
- CSA Component Acceptance:  
File # 053787 C000, Class # 1422 30

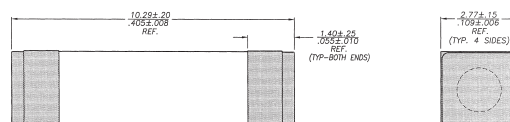
### Environmental Data

- Life test: MIL-STD-202, Method 108A, Test Condition D
- Load humidity: MIL-STD-202, Method 103B
- Moisture resistance: MIL-STD-202, Method 106E
- Terminal strength: MIL-STD-202, Method 211A
- Thermal shock: MIL-STD-202, Method 107D, air-to-air
- Case resistance: EIA/IS-722
- Resistance to dissolution of metallization:  
ANSI J-STD-002, Test D
- Mechanical shock: MIL-STD-202, Method 213B with exceptions per EIA/IS-722 Standard
- High frequency vibration: MIL-STD-202, Method 204D, Test Condition D
- Resistance to solvents: MIL-STD-202, Method 215A

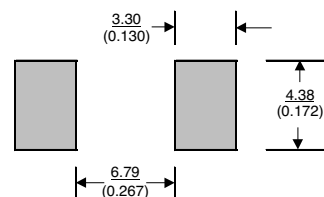


### Dimensions – mm/in

Drawing Not to Scale



### Recommended Pad Layout – mm (in)



### Ordering

- Specify packaging and product code (i.e., TR2/1025FA250-R)

### Soldering Method

- Wave solder: 260°C, 10 Sec max.
- Infrared reflow: 260°C, 30 Sec max.

### Specifications

| Product Code | Current Rating (amps) | Voltage Rating |      | Interrupting Rating (amps)* |        |       | DC Cold Resistance** (Ω)<br>Typical | Typical Melting I <sup>††</sup> | Typical Voltage Drop‡ |
|--------------|-----------------------|----------------|------|-----------------------------|--------|-------|-------------------------------------|---------------------------------|-----------------------|
|              |                       | AC             | DC   | 250Vac                      | 125Vdc | 60Vdc |                                     |                                 |                       |
| 1025FA250-R  | 250mA                 | 250V           | 125V | 50                          | 50     | -     | 4.7500                              | 0.1212                          | 2019mV                |
| 1025FA500-R  | 500mA                 | 250V           | 125V | 50                          | 50     | -     | 1.1500                              | 0.0415                          | 1500mV                |
| 1025FA750-R  | 750mA                 | 250V           | 125V | 50                          | 50     | -     | 0.5550                              | 0.143                           | 880mV                 |
| 1025FA1-R    | 1                     | 250V           | 125V | 50                          | 50     | -     | 0.2800                              | 1.750                           | 560mV                 |
| 1025FA1.5-R  | 1.5                   | 250V           | 125V | 50                          | 50     | -     | 0.1140                              | 1.460                           | 260mV                 |
| 1025FA2-R    | 2                     | 250V           | 125V | 50                          | 50     | -     | 0.0750                              | 6.086                           | 258mV                 |
| 1025FA2.5-R  | 2.5                   | 250V           | 125V | 50                          | 50     | -     | 0.0510                              | 8.48                            | 232mV                 |
| 1025FA3-R    | 3                     | 250V           | 125V | 50                          | 50     | -     | 0.0384                              | 18.15                           | 205mV                 |
| 1025FA3.5-R  | 3.5                   | 250V           | 125V | 50                          | 50     | -     | 0.0305                              | 17.83                           | 185mV                 |
| 1025FA4-R    | 4                     | 250V           | 125V | 50                          | 50     | -     | 0.0275                              | 23.32                           | 190mV                 |
| 1025FA5-R    | 5                     | 250V           | 125V | 50                          | 50     | -     | 0.0195                              | 38.74                           | 180mV                 |
| 1025FA7-R    | 7                     | 250V           | 60V  | 50                          | -      | 50    | 0.0116                              | 138                             | 150mV                 |
| 1025FA10-R   | 10                    | 250V           | 60V  | 50                          | -      | 50    | 0.0072                              | 457                             | 146mV                 |
| 1025FA12-R   | 12                    | 250V           | 60V  | 50                          | -      | 50    | 0.0056                              | 498                             | 120mV                 |
| 1025FA15-R   | 15                    | 250V           | 60V  | 50                          | -      | 50    | 0.0039                              | 1451                            | 110mV                 |

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

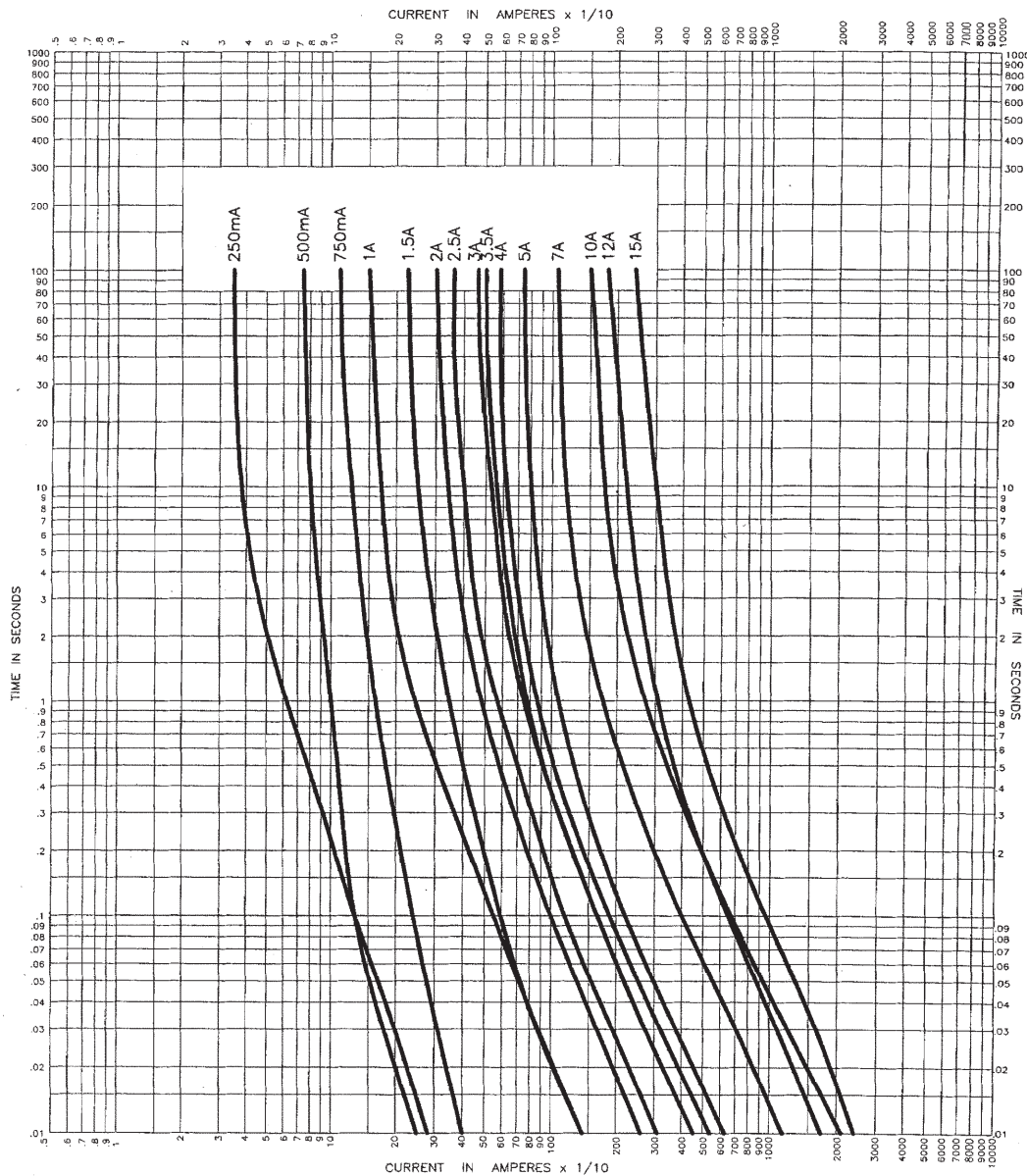
\*\* DC cold resistance (measured at ≤10% of rated current)

† Typical Melting I<sup>††</sup> (measured with a battery bank at rated DC voltage, 10x-rated current, but not exceeding the interrupting rating. Time constant of calibrated circuit less than 50 microseconds). Test current not to exceed interrupting rating of 50A.

‡ Typical voltage drop (measured at rated current after temperature stabilizes)

• Device designed to carry rated current for four hours minimum. An operating current of 80% or less of rated current is recommended, with further derating required at elevated ambient temperatures.

# Time Current Curve



## Packaging Code

| Packaging Code Prefix | Description                                                                    |
|-----------------------|--------------------------------------------------------------------------------|
| TR2                   | 2,500 fuses on 24mm tape-and-reel on 13 inch (330mm) reel per EIA Standard 481 |

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