



**THE DATASHEET OF
1025FA500-R**

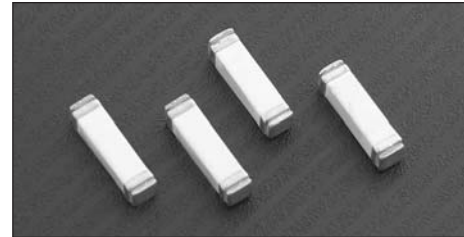


Brick™ Fuses

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

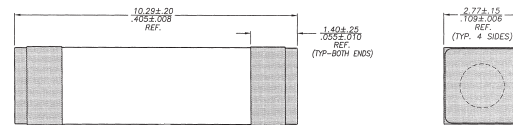
- UL Recognition Guide & File numbers: JDYX2 & E19180 (250mA - 15A)
- CSA Component Acceptance: File # 053787 C000, Class # 1422 30

Environmental Data

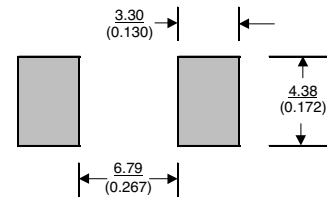
- Life test: MIL-STD-202, Method 108A, Test Condition D
- Load humidity: MIL-STD-202, Method 103B
- Moisture resistance: MIL-STD-202, Method 106E
- Terminal strength: MIL-STD-202, Method 211A
- Thermal shock: MIL-STD-202, Method 107D, air-to-air
- Case resistance: EIA/IS-722
- Resistance to dissolution 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) Typical | Typical Melting I ² t† | 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)

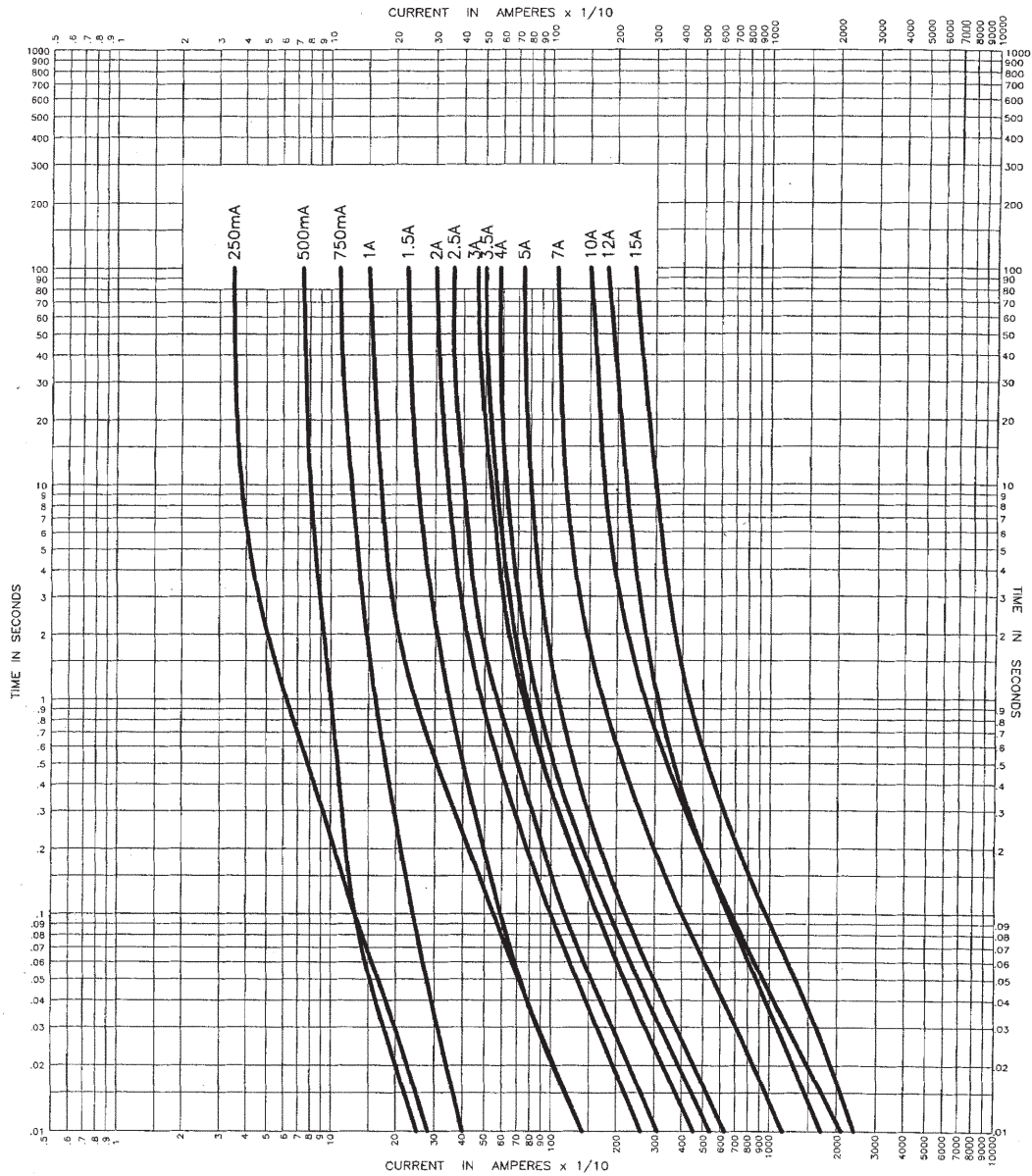
** DC cold resistance (measured at ≤10% of rated current)

† Typical Melting I²t (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 |

North America

Cooper Electronic Technologies
1225 Broken Sound Parkway NW
Suite F
Boca Raton, FL 33487-3533
Tel: 1-561-998-4100
Fax: 1-561-241-6640
Toll Free: 1-888-414-2645

Cooper Bussmann
P.O. Box 14460
St. Louis, MO 63178-4460
Tel: 1-636-394-2877
Fax: 1-636-527-1607

Europe

Cooper Electronic Technologies
Cooper (UK) Limited
Burton-on-the-Wolds
Leicestershire • LE12 5TH UK
Tel: +44 (0) 1509 882 737
Fax: +44 (0) 1509 882 786

Cooper Electronic Technologies
Avda. Santa Eulalia, 290
08223
Terrassa, (Barcelona), Spain
Tel: +34 937 362 812
+34 937 362 813
Fax: +34 937 362 719

Asia Pacific

Cooper Electronic Technologies
1 Jalan Kilang Timor
#06-01 Pacific Tech Centre
Singapore 159303
Tel: +65 278 6151
Fax: +65 270 4160

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