

SPFJ SERIES FUSE

1000 VDC • 125 - 450A



Description

The SPFJ series is the smallest 1000VDC 125-450A photovoltaic fuse available in the market. The SPFJ series is manufactured in Class J case sizes that allows for both fuseholder and busbar mounting configuration. The SPFJ meets both UL and IEC requirements.

Features/Benefits

- Meets both UL and IEC photovoltaic standards
- Small footprint reduces panel size
- Full-range PV time-current characteristic
- Flexibility of fuseholder or busbar mounting
- Higher amperage solar fuses in standard sizes
- UL Listed Class J branch and feeder circuit rated

Specifications

- Voltage Ratings:** 1000 VDC
- Interrupting Rating:** AC: 200 kAIC;
DC: 125-200 A: 20 kAIC
250-400 A: 10 kAIC
450 A: 20 kAIC
- Amperage:** 125, 160, 200, 250, 300, 350, 400, 450
- Approvals:** UL 2579 Listed
UL 248-8, Class J
C UL (Approval on Class J fuse—no PV standard)
VDE certifications to IEC 60269-6 in progress
- Material:** Body-Melamine
End Bells-Copper Alloy
- Environmental:** RoHS Compliant
- Country of Origin:** Mexico

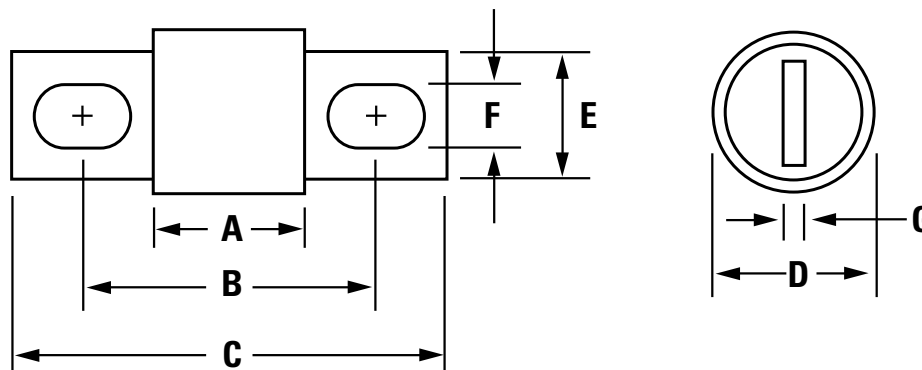
Applications

- Inverters
- Re-combiner boxes

Recommended Fuseholder

LFJ 1000VDC Solar Series

Dimensions in mm (inches)



| AMPERAGE | DIMENSIONS IN INCHES (MM) | | | | | | |
|----------|---------------------------|------------------|------------------|--------------|--------------|--------------|------------|
| | A | B | C | D | E | F | G |
| 125-200 | 3 (76.2) | 4 11/32 (110.19) | 5 21/32 (144.02) | 1 1/2 (38.1) | 1 1/8 (28.6) | 9/32 (7.1) | 3/16 (4.8) |
| 250-400 | 3 3/8 (85.7) | 5 1/4 (133.35) | 7 1/8 (181.0) | 2 (50.8) | 1 5/8 (41.3) | 13/32 (10.3) | 1/4 (6.4) |
| 450 | 3 3/4 (95.3) | 5.98 (151.99) | 8 (203.2) | 2 1/2 (63.5) | 2 (50.8) | 17/32 (13.5) | 3/8 (9.5) |



Look for this logo to indicate products that are used in solar applications. Visit our website www.littelfuse.com/solar for the latest updates on approvals, certifications, codes and standards.

SPFJ SERIES FUSE

Ordering Information

| PART NUMBER | ORDERING NUMBER | AMPERAGE | UPC | AGENCY APPROVALS | | | | | |
|-------------|-----------------|----------|-------------|------------------|------|----|------|------|-------|
| | | | | UL | VDE* | CE | ROHS | CCC* | C UL° |
| SPFJ 125 | SPFJ125.X | 125 | 07945894924 | ● | ● | ● | ● | ● | ● |
| SPFJ 160 | SPFJ160.X | 160 | 07945894925 | ● | ● | ● | ● | ● | ● |
| SPFJ 200 | SPFJ200.X | 200 | 07945894926 | ● | ● | ● | ● | ● | ● |
| SPFJ 250 | SPFJ250.X | 250 | 07945894927 | ● | ● | ● | ● | ● | ● |
| SPFJ 300 | SPFJ300.X | 300 | 07945894928 | ● | ● | ● | ● | ● | ● |
| SPFJ 350 | SPFJ350.X | 350 | 07945894929 | ● | ● | ● | ● | ● | ● |
| SPFJ 400 | SPFJ400.X | 400 | 07945894930 | ● | ● | ● | ● | ● | ● |
| SPFJ 450 | SPFJ450.X | 450 | 07945894931 | ● | ● | ● | ● | ● | ● |

Electrical Specifications

| ORDERING NUMBER | AMPERAGE RATING | VOLTAGE RATING | | INTERRUPTING RATING | | TOTAL CLEARING I ² T (A ² SEC) 100 kA (600Vac) | TOTAL CLEARING I ² T (A ² SEC) 10 kA (1000Vdc) | TOTAL CLEARING I ² T (A ² SEC) 20 kA (1000Vdc) |
|-----------------|-----------------|----------------|------|---------------------|-------|--|--|--|
| | | AC | DC | AC | DC | | | |
| SPFJ125.X | 125 | 600 | 1000 | 200 kA | 20 kA | 24750 | 17391 | 23529 |
| SPFJ160.X | 160 | 600 | 1000 | 200 kA | 20 kA | 60100 | 38771 | 47465 |
| SPFJ200.X | 200 | 600 | 1000 | 200 kA | 20 kA | 108000 | 66151 | 79642 |
| SPFJ250.X | 250 | 600 | 1000 | 200 kA | 10 kA | 85900 | 55897 | N/A |
| SPFJ300.X | 300 | 600 | 1000 | 200 kA | 10 kA | 143000 | 91129 | N/A |
| SPFJ350.X | 350 | 600 | 1000 | 200 kA | 10 kA | 232000 | 170863 | N/A |
| SPFJ400.X | 400 | 600 | 1000 | 200 kA | 10 kA | 400500 | 287094 | N/A |
| SPFJ450.X | 450 | 600 | 1000 | 200 kA | 20 kA | 565333 | 401687 | 400916 |

| ORDERING NUMBER | AMPERAGE RATING | NOM COLD RESISTANCE (Ohm) | MELTING I ² T (10KA dc) (1000Vdc) | MELTING I ² T (20KA dc) (1000Vdc) | WATTS LOSS AT 100% RATED CURRENT (W) | WATTS LOSS AT 80% RATED CURRENT (W) | WATTS LOSS AT 70% RATED CURRENT (W) |
|-----------------|-----------------|---------------------------|--|--|--------------------------------------|-------------------------------------|-------------------------------------|
| SPFJ125.X | 125 | 0.964 | 6863 | 5824 | 23.00 | 12.60 | 9.04 |
| SPFJ160.X | 160 | 0.613 | 19053 | 19368 | 22.77 | 12.67 | 9.15 |
| SPFJ200.X | 200 | 0.460 | 34053 | 32502 | 27.40 | 15.09 | 10.87 |
| SPFJ250.X | 250 | 0.485 | 31022 | N/A | 49.17 | 26.20 | 20.59 |
| SPFJ300.X | 300 | 0.367 | 59201 | N/A | 52.90 | 28.32 | 20.02 |
| SPFJ350.X | 350 | 0.285 | 109799 | N/A | 54.48 | 29.31 | 20.99 |
| SPFJ400.X | 400 | 0.236 | 198654 | N/A | 58.40 | 31.47 | 22.21 |
| SPFJ450.X | 450 | 0.187 | 317627 | 201877 | 50.55 | 28.68 | 20.79 |

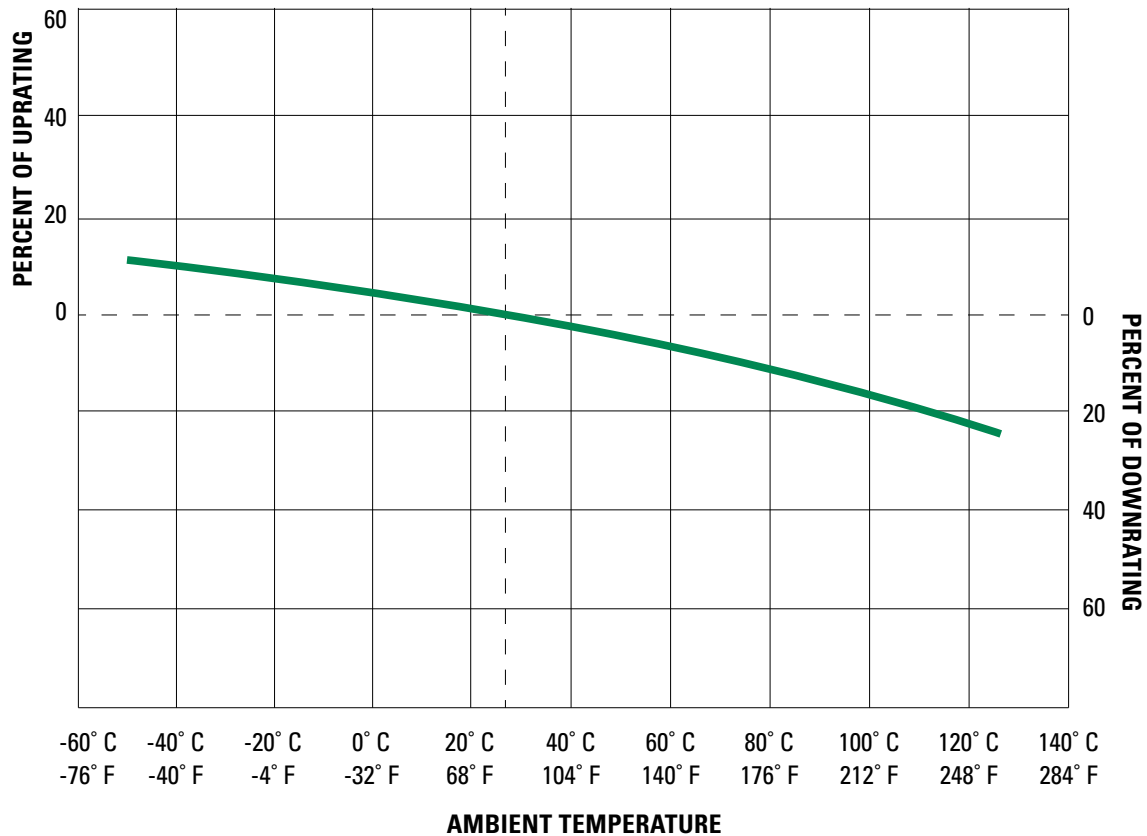
* In Progress
 ° C UL Approval on Class J fuse (no CSA PV standard exists)

SPFJ SERIES FUSE

Electrical Specification – Agency Requirements

| ORDERING NUMBER. | AMPERAGE | OPENING TIME (MINUTES) | | | | |
|------------------|----------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| | | 100% of Amp Rating per UL | 113% of Amp Rating per IEC | 135% of Amp Rating per UL | 145% of Amp Rating per IEC | 200% of Amp Rating per UL |
| SPFJ125.X | 125 | Temperature Stabilization | 120 Min | 120 Max | 120 Max | 10 Max |
| SPFJ160.X | 160 | | 180 Min | | 180 Max | |
| SPFJ200.X | 200 | | | | | |
| SPFJ250.X | 250 | | | | | |
| SPFJ300.X | 300 | | | | | |
| SPFJ350.X | 350 | | | | | |
| SPFJ400.X | 400 | | | | | |
| SPFJ450.X | 450 | | 240 Min | | 240 Max | 14 Max |

Temperature Derating Curve



SPFJ SERIES FUSE

Recommended Torque Values For Bus Bar Mounting

| RECOMMENDED TORQUE VALUES FOR BUSS BAR MOUNTING FUSE | | |
|--|-------------------------------|----------------------------------|
| ORDERING NUMBER | FUSE TORQUE—METRIC (STANDARD) | HARDWARE SIZE—METRIC (STANDARD)* |
| SPFJ125.X | 7.3 N•m (65 in-lb) | 6mm (1/4 -20) |
| SPFJ160.X | 7.3 N•m (65 in-lb) | 6mm (1/4 -20) |
| SPFJ200.X | 7.3 N•m (65 in-lb) | 6mm (1/4 -20) |
| SPFJ250.X | 19.2 N•m (170 in-lb) | 10mm (3/8 -16) |
| SPFJ300.X | 19.2 N•m (170 in-lb) | 10mm (3/8 -16) |
| SPFJ350.X | 19.2 N•m (170 in-lb) | 10mm (3/8 -16) |
| SPFJ400.X | 19.2 N•m (170 in-lb) | 10mm (3/8 -16) |
| SPFJ450.X | 19.2 N•m (170 in-lb) | 12mm (7/16 -14) |

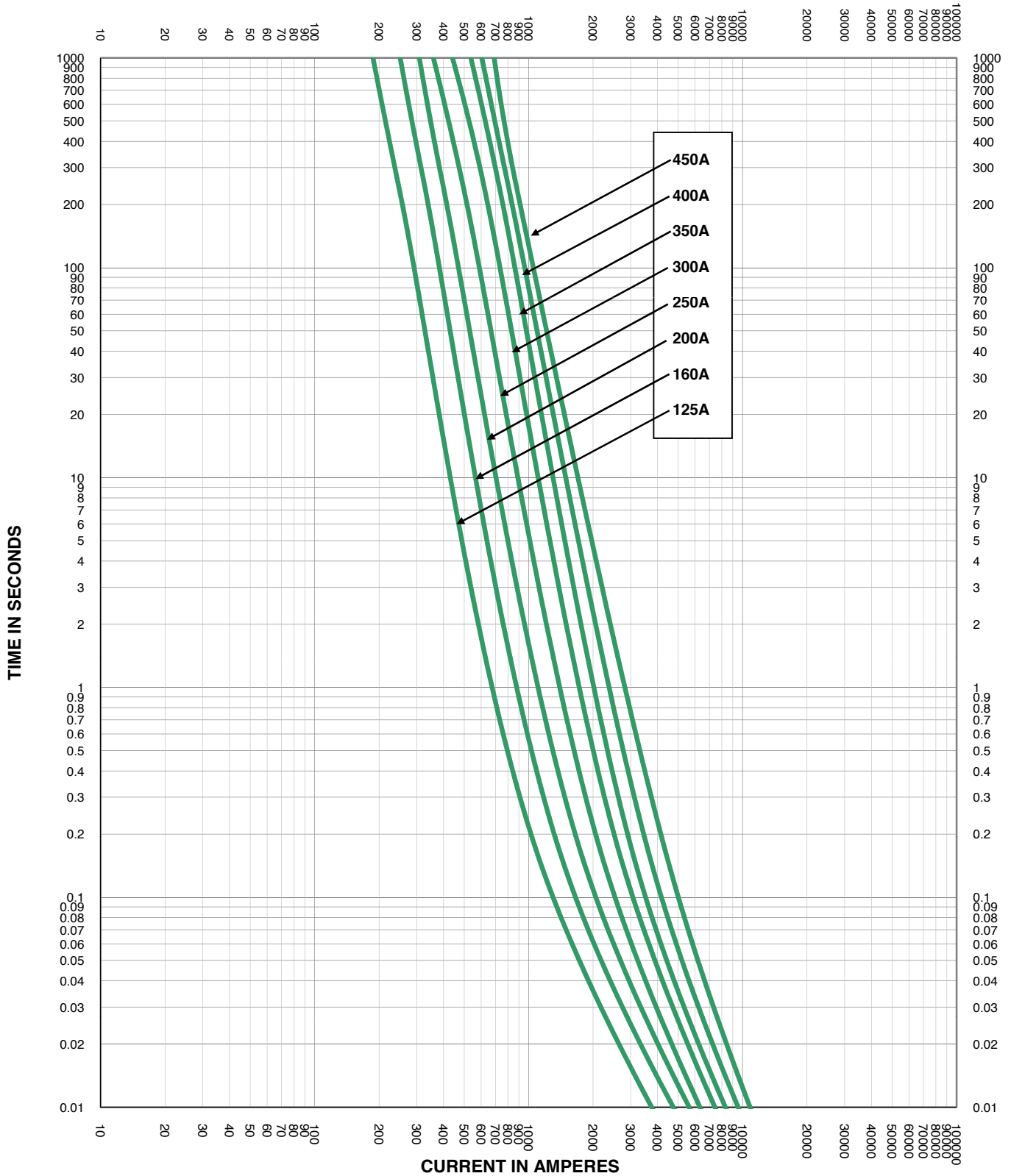
* Recommended minimum hardware grade 2 or class 5.8



For fuseholder information, drawings and specifications visit www.littelfuse.com/solar

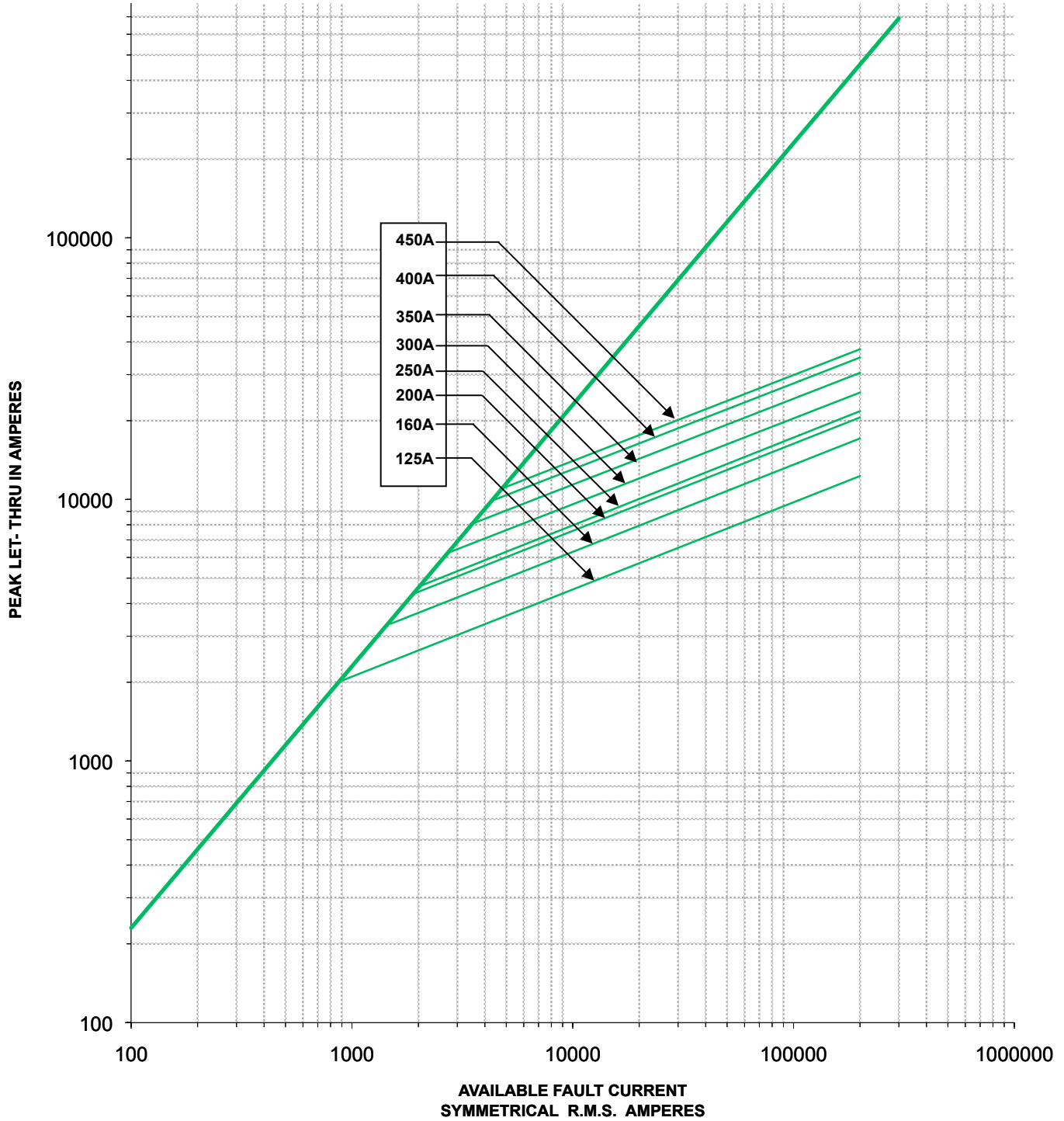
SPFJ SERIES FUSE

TIME CURRENT CURVE



SPFJ SERIES FUSE

PEAK LET-THRU CHARACTERISTIC CURVES



Tested at 600 Vac



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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