

S505

5 mm x 20 mm, Ferrule time-delay, ceramic tube fuses



Product features

- Time-delay high breaking capacity
- Designed to IEC 60127-2
- 0.5 A to 12 A current ratings
- Ceramic tube, nickel plated brass end cap construction
- Halogen free, RoHS compliant, lead free
- Reference [S505SC data sheet \(10132\)](#) for available axial lead options

Applications

Primary circuit protection:

- LED and general lighting
- LED/LCD televisions
- Appliances and white goods
- Printers and peripherals
- Test equipment
- Power supplies

Agency information

- cURus Recognition file number: E19180, Guide JDYX2/JDYX8
- CSA file: 53787
- SEMKO file: 816547, 1119019
- VDE file: 40014091, 40024352, 40023140
- BSI file: KM55676
- IMQ file: CA03 00100, CA03 00529
- PSE: JET 1641-31003-1009, 1641-31003-1010, 1641-31003-1011, 1641-31003-1012, 1641-31003-2001, 1641-31003-2002
- CCC file: 2002010207011295
- KC-Mark file: SU5011-4012A, SU5011-5004A

Ordering

- Use ordering code (see page 4 for details)

Packaging prefixes

- BK- (100 parts in a cardboard carton)
- BK1- (1,000 parts in a bag)

Electrical characteristics

| I_n | 1.5I _n min minute | 2.1I _n max minute | 2.75I _n min ms | max s | 4I _n min ms | max s | 10I _n min ms | max ms |
|--------------|------------------------------------|------------------------------------|---------------------------------|----------|------------------------------|----------|-------------------------------|-----------|
| < 1 A | 60 | 30 | 250 | 80 | 50 | 5 | 5 | 150 |
| 1 A - 3.15 A | 60 | 30 | 750 | 80 | 95 | 5 | 10 | 150 |
| 4 A - 6.3 A | 60 | 30 | 750 | 80 | 150 | 5 | 10 | 150 |
| 8 A - 12 A | 30 | 30 | 750 | 80 | 150 | 5 | 10 | 150 |

Product specifications

| Part number ⁵ | Current rating (A) | Voltage rating AC | Interrupting rating at rated AC voltage ¹ (50 Hz) (A _{AC}) | Typical DC cold resistance ² (Ω) | Typical pre-arcing ³ I ² t (A ² s) | Typical voltage drop ⁴ (mV) | IMQ | VDE | SEMKO | cURus | CCC | PSE-JET | CSA | KC | BSI |
|--------------------------|--------------------|-------------------|---|---|---|--|-----|-----|-------|-------|-----|---------|-----|----|-----|
| S505-500-R | 0.5 | 250 | 1500 | 0.5070 | 0.188* | 295 | X | X | X | X | X | | X | | X |
| S505-800-R | 0.8 | 250 | 1500 | 0.2370 | 0.632* | 189 | X | X | X | X | X | | X | | X |
| S505-1-R | 1.0 | 250 | 1500 | 0.1570 | 1.28 | 176 | X | X | X | X | X | X | X | X | X |
| S505-1.25-R | 1.25 | 250 | 1500 | 0.1075 | 2.22 | 150 | X | X | X | X | X | X | X | X | X |
| S505-1.6-R | 1.6 | 250 | 1500 | 0.0700 | 6.78 | 125 | X | X | X | X | X | X | X | X | X |
| S505-2-R | 2.0 | 250 | 1500 | 0.0545 | 9.6 | 118.5 | X | X | X | X | X | X | X | X | X |
| S505-2.5-R | 2.5 | 250 | 1500 | 0.0395 | 16.6 | 115 | X | X | X | X | X | X | X | X | X |
| S505-3.15-R | 3.15 | 250 | 1500 | 0.0305 | 36.6 | 102.5 | X | X | X | X | X | X | X | X | X |
| S505-4-R | 4.0 | 250 | 1500 | 0.0185 | 38.45* | 86.5 | X | X | X | X | X | X | X | X | X |
| S505-5-R | 5.0 | 250 | 1500 | 0.0131 | 71.30* | 77.5 | X | X | X | X | X | X | X | X | X |
| S505-6.3-R | 6.3 | 250 | 1500 | 0.0102 | 111* | 75 | X | X | X | X | X | X | X | X | X |
| S505-8-R | 8.0 | 250 | 1500 | 0.0077 | 228* | 73 | X | X | X | X | X | X | X | X | X |
| S505-10-R | 10 | 250 | 1500 | 0.0061 | 397 | 72 | X | X | X | X | X | X | X | X | X |
| S505-12-R | 12 | 250 | 1000 | 0.0053 | 713.7* | 77 | | X | | X | | | | | |

- 1 Interrupting ratings 500 mA to 10 A measured at 70% to 80% PF on AC. 12 A measured at 100% PF on AC.
- 2 Typical DC cold resistance measured at <10% of rated current at an ambient temperature of +20 ° C (reference only)
- 3 Typical pre-arcing (I²t) measured at listed interrupting rating and voltage.
* = measured at 10 times rated current under DC.

- 4 Typical voltage drop measured at +20 ° C at rated current.
- 5 Part number definition: S505-xxx-R
S505= Product code and size
xxx= Ampere rating
-R= Rohs compliant

Dimensions (mm)



Temperature derating curve



Time vs. current curve



Environmental data

Operating temperature: - 55 °C to +125 °C (with derating)

Ordering codes

The ordering code is the part number replacing the “ ” with a “-” plus adding the packaging suffix.

Packaging prefixes

- BK- (100 parts in a cardboard carton)
- BK1- (1,000 parts in a bag)

| Part number | Ordering codes | |
|-------------|----------------|-----------------|
| | -BK option | -BK1 option |
| S505-500-R | BK-S505-500-R | BK1-S505-500-R |
| S505-800-R | BK-S505-800-R | BK1-S505-800-R |
| S505-1-R | BK-S505-1-R | BK1-S505-1-R |
| S505-1.25-R | BK-S505-1-25-R | BK1-S505-1-25-R |
| S505-1.6-R | BK-S505-1-6-R | BK1-S505-1-6-R |
| S505-2-R | BK-S505-2-R | BK1-S505-2-R |
| S505-2.5-R | BK-S505-2-5-R | BK1-S505-2-5-R |
| S505-3.15-R | BK-S505-3-15-R | BK1-S505-3-15-R |
| S505-4-R | BK-S505-4-R | BK1-S505-4-R |
| S505-5-R | BK-S505-5-R | BK1-S505-5-R |
| S505-6.3-R | BK-S505-6-3-R | BK1-S505-6-3-R |
| S505-8-R | BK-S505-8-R | BK1-S505-8-R |
| S505-10-R | BK-S505-10-R | BK1-S505-10-R |
| S505-12-R | BK-S505-12-R | BK1-S505-12-R |

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Eaton
Electronics Division
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/electronics

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