

# Protistor® size 20x127 gR (GRB/C/D)

1000 to 1500VDC

## SEMICONDUCTOR PROTECTION FUSES

## IEC HIGH-SPEED CYLINDRICAL FUSE-LINKS DC PROTECTION



Specially developed for DC applications, 20x127 gR cylindrical is a fast acting, full range fuse used in the protection of auxiliaries, control circuit and other measuring and monitoring devices.

### TECHNICAL DATA OVERVIEW

|                      |                   |
|----------------------|-------------------|
| Voltage Range AC     | 1000 ... 1500 VAC |
| Ampere Range (A)     | 6 ... 63 A        |
| Speed/Characteristic | gR                |
| Product Size         | 20x127 mm         |

### FEATURES & BENEFITS

- International 20x127mm (13/16" x 5") for worldwide acceptance
- gR Class according to VDE 636-23 and IEC 60269-4
- Low  $I^2t$  for improved semiconductor protection
- Eliminate all overloads
- Extremely fast acting
- Current limiting
- Excellent cycling capability

### APPLICATIONS

- DC control circuit, measuring & monitoring auxiliaries circuit

### STANDARDS

- UL Recognized component
- UL file No. E76491
- IEC 60269-4 Compliance



# Protistor® size 20x127 gR (GRB/C/D)

1000 to 1500VDC

## PRODUCT RANGE

### Size 20x127 gR 1000VDC with striker

| Catalog number | Item number | Rated voltage DC (IEC) | Rated current I <sub>n</sub> | Rated breaking capacity DC | Power dissipation at I <sub>n</sub> | Package | Weight |
|----------------|-------------|------------------------|------------------------------|----------------------------|-------------------------------------|---------|--------|
| FD20GB100V6T   | Z088020     | 1000 V                 | 6 A                          | 100 kA                     | 3.5 W                               | 10      | 97 g   |
| FD20GB100V8T   | T088774     | 1000 V                 | 8 A                          | 100 kA                     | 3.8 W                               | 10      | 97 g   |
| FD20GB100V10T  | A089493     | 1000 V                 | 10 A                         | 100 kA                     | 4.2 W                               | 10      | 97 g   |
| FD20GB100V12T  | B089494     | 1000 V                 | 12 A                         | 100 kA                     | 5.3 W                               | 10      | 97 g   |
| FD20GB100V16T  | C089495     | 1000 V                 | 16 A                         | 100 kA                     | 6.6 W                               | 10      | 97 g   |
| FD20GB100V20T  | D089496     | 1000 V                 | 20 A                         | 100 kA                     | 7.7 W                               | 10      | 97 g   |
| FD20GB100V25T  | E089497     | 1000 V                 | 25 A                         | 100 kA                     | 9 W                                 | 10      | 97 g   |
| FD20GB100V32T  | F089498     | 1000 V                 | 32 A                         | 100 kA                     | 10.5 W                              | 10      | 97 g   |
| FD20GC100V40T  | S086795     | 1000 V                 | 40 A                         | 100 kA                     | 13.2 W                              | 10      | 97 g   |
| FD20GC100V50T  | F086186     | 1000 V                 | 50 A                         | 100 kA                     | 15.5 W                              | 10      | 97 g   |
| FD20GC100V63T  | F083656     | 1000 V                 | 63 A                         | 100 kA                     | 17.4 W                              | 10      | 97 g   |

### Size 20x127 gR 1000VDC without striker

| Catalog number | Item number | Rated voltage DC (IEC) | Rated current I <sub>n</sub> | Rated breaking capacity DC | Power dissipation at I <sub>n</sub> | Package | Weight |
|----------------|-------------|------------------------|------------------------------|----------------------------|-------------------------------------|---------|--------|
| FD20GB100V6    | N089482     | 1000 V                 | 6 A                          | 100 kA                     | 3.5 W                               | 10      | 0.1 kg |
| FD20GB100V8    | P089483     | 1000 V                 | 8 A                          | 100 kA                     | 3.8 W                               | 10      | 0.1 kg |
| FD20GB100V10   | Q089484     | 1000 V                 | 10 A                         | 100 kA                     | 4.2 W                               | 10      | 0.1 kg |
| FD20GB100V12   | R089485     | 1000 V                 | 12 A                         | 100 kA                     | 5.3 W                               | 10      | 0.1 kg |
| FD20GB100V16   | S089486     | 1000 V                 | 16 A                         | 100 kA                     | 6.6 W                               | 10      | 0.1 kg |
| FD20GB100V20   | T089487     | 1000 V                 | 20 A                         | 100 kA                     | 7.7 W                               | 10      | 0.1 kg |
| FD20GB100V25   | V089488     | 1000 V                 | 25 A                         | 100 kA                     | 9 W                                 | 10      | 0.1 kg |
| FD20GB100V32   | W089489     | 1000 V                 | 32 A                         | 100 kA                     | 10.5 W                              | 10      | 0.1 kg |
| FD20GC100V40   | Z087054     | 1000 V                 | 40 A                         | 100 kA                     | 13.2 W                              | 10      | 0.1 kg |
| FD20GC100V50   | K083660     | 1000 V                 | 50 A                         | 100 kA                     | 15.5 W                              | 10      | 0.1 kg |
| FD20GC100V63   | J083659     | 1000 V                 | 63 A                         | 100 kA                     | 17.4 W                              | 10      | 0.1 kg |

### Size 20x127 gR 1500VDC with striker



| Catalog number  | Item number | Rated voltage DC (IEC) | Rated current I <sub>n</sub> | Rated breaking capacity DC | Power dissipation at I <sub>n</sub> | Design | Package | Weight |
|-----------------|-------------|------------------------|------------------------------|----------------------------|-------------------------------------|--------|---------|--------|
| FD20GB150V0,8T  | E075743     | 1500 V                 | 0.8 A                        | 30 kA                      | 0.9 W                               | gRB    | 10      | 97 g   |
| FD20GB150V1,5T  | G075745     | 1500 V                 | 1.5 A                        | 30 kA                      | 1.4 W                               | gRB    | 10      | 97 g   |
| FD20GB150V2T    | B088367     | 1500 V                 | 2 A                          | 30 kA                      | 1.6 W                               | gRB    | 10      | 97 g   |
| FD20GB150V3,15T | H075746     | 1500 V                 | 3.15 A                       | 30 kA                      | 2.1 W                               | gRB    | 10      | 97 g   |
| FD20GB150V4T    | J075747     | 1500 V                 | 4 A                          | 30 kA                      | 2.1 W                               | gRB    | 10      | 97 g   |
| FD20GB150V1T    | F075744     | 1500 V                 | 1 A                          | 30 kA                      | 0.9 W                               | gRB    | 10      | 97 g   |
| FD20GB150V5T    | C088368     | 1500 V                 | 5 A                          | 30 kA                      | 2.3 W                               | gRB    | 10      | 97 g   |

# Protistor® size 20x127 gR (GRB/C/D)

1000 to 1500VDC

## PRODUCT RANGE



FD20G-  
B150V0,8

### Size 20x127 gR 1500VDC without indicator

| Catalog number | Item number | Rated voltage DC (IEC) | Rated current I <sub>n</sub> | Rated breaking capacity DC | Power dissipation at I <sub>n</sub> | Design | Package | Weight |
|----------------|-------------|------------------------|------------------------------|----------------------------|-------------------------------------|--------|---------|--------|
| FD20GB150V0,8  | J081842     | 1500 V                 | 0.8 A                        | 30 kA                      | 0.9 W                               | gRB    | 10      | 97 g   |
| FD20GD150V10   | F081655     | 1500 V                 | 10 A                         | 30 kA                      | 6.1 W                               | gRD    | 10      | 97 g   |
| FD20GD150V12   | B080593     | 1500 V                 | 12 A                         | 30 kA                      | 6.8 W                               | gRD    | 10      | 97 g   |
| FD20GB150V1    | R079894     | 1500 V                 | 1 A                          | 30 kA                      | 0.9 W                               | gRB    | 10      | 97 g   |
| FD20GD150V16   | Q081457     | 1500 V                 | 16 A                         | 30 kA                      | 8.9 W                               | gRD    | 10      | 97 g   |
| FD20GD150V20   | D082803     | 1500 V                 | 20 A                         | 30 kA                      | 9.6 W                               | gRD    | 10      | 97 g   |
| FD20GD150V25   | A080431     | 1500 V                 | 25 A                         | 30 kA                      | 12 W                                | gRD    | 10      | 97 g   |
| FD20GB150V1,5  | K081843     | 1500 V                 | 1.5 A                        | 30 kA                      | 1.4 W                               | gRB    | 10      | 97 g   |
| FD20GB150V2    | Y099243     | 1500 V                 | 2 A                          | 30 kA                      | 1.6 W                               | gRB    | 10      | 97 g   |
| FD20GB150V3,15 | L081844     | 1500 V                 | 3.15 A                       | 30 kA                      | 2.1 W                               | gRB    | 10      | 97 g   |
| FD20GB150V4    | Z099244     | 1500 V                 | 4 A                          | 30 kA                      | 2.1 W                               | gRB    | 10      | 97 g   |
| FD20GB150V5    | A099245     | 1500 V                 | 5 A                          | 30 kA                      | 2.3 W                               | gRB    | 10      | 97 g   |
| FD20GD150V6    | E082804     | 1500 V                 | 6 A                          | 30 kA                      | 6.3 W                               | gRD    | 10      | 97 g   |
| FD20GD150V8    | Z080867     | 1500 V                 | 8 A                          | 30 kA                      | 6 W                                 | gRD    | 10      | 97 g   |

RMS value of pre-arcing/melting current (A) +- 10%

## TIME CURRENT CHARACTERISTIC CURVES

Pre-arcing time (s)

50 Hz RMS symmetrical prospective current I<sub>p</sub> (A)

## CUT-OFF CURRENT CHARACTERISTIC

Maximum peak let thru current I<sub>c</sub> (A)

MERSEN reserves the right to change, update or correct, without notice, any information contained in this datasheet.

# Protistor® size 20x127 gR (GRB/C/D)

1000 to 1500VDC

---

I<sup>2</sup>T MULTIPLIER COEFFICIENT

L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

PEAK ARC VOLTAGE