

# GDB

## 5 mm x 20 mm Fast-acting glass tube fuses

RoHS



### Product features

- Fast-acting, low breaking capacity
- 5 x 20 mm physical size
- Glass tube, with silver-plated (32 mA - 125 mA) and nickel-plated (160 mA - 10 A) brass endcap construction
- Designed to IEC 60127-2/2 (160 mA- 10 A)

### Agency information

- UL Recognized card: Guide JDYX2, File E19180
- VDE approval: File 40014109
- CSA approval: Class number 1422-30&90, file number 053787

### Ordering

- Specify product code: Insert packaging code prefix before part number. E.g. BK-GDB-250mA

### Electrical Characteristics

| I <sub>n</sub> | 1.5 I <sub>n</sub> |        | 2.1 I <sub>n</sub> |        | 2.75 I <sub>n</sub> |        | 4 I <sub>n</sub> |     | 10 I <sub>n</sub> |     |
|----------------|--------------------|--------|--------------------|--------|---------------------|--------|------------------|-----|-------------------|-----|
|                | min                | max    | min                | max    | min                 | max    | min              | max | min               | max |
| 32mA-100mA     | 60 min             | 30 min | 10 ms              | 500 ms | 3 ms                | 100 ms | 20 ms            |     |                   |     |
| 125mA-6.3A     | 60 min             | 30 min | 50 ms              | 2 sec  | 10 ms               | 300 ms | 20 ms            |     |                   |     |
| 8A-10A         | 30 min             | 30 min | 50 ms              | 2 sec  | 10 ms               | 400 ms | 40 ms            |     |                   |     |

### Specifications

| Part number | Voltage rating Vac | Interrupting rating (A) at rated voltage (50Hz) Vac | Typical DC cold resistance (Ω)* | Typical melting I <sup>2</sup> t AC† | Maximum voltage drop (mV)‡ | Agency approval |     |
|-------------|--------------------|-----------------------------------------------------|---------------------------------|--------------------------------------|----------------------------|-----------------|-----|
|             |                    |                                                     |                                 |                                      |                            | UR              | VDE |
| GDB-32mA    | 250                | 35                                                  | 290                             | 0.00002                              | 13000                      |                 |     |
| GDB-40mA    | 250                | 35                                                  | 210                             | 0.00006                              | 11500                      |                 |     |
| GDB-50mA    | 250                | 35                                                  | 150                             | 0.00010                              | 10500                      |                 |     |
| GDB-63mA    | 250                | 35                                                  | 113                             | 0.00020                              | 9800                       |                 |     |
| GDB-80mA    | 250                | 35                                                  | 22                              | 0.0008                               | 3000                       |                 |     |
| GDB-100mA   | 250                | 35                                                  | 18                              | 0.0013                               | 2800                       |                 |     |
| GDB-125mA   | 250                | 35                                                  | 11                              | 0.0034                               | 2200                       |                 |     |
| GDB-160mA   | 250                | 35                                                  | 9.1                             | 0.008                                | 2000                       | X               | X   |
| GDB-200mA   | 250                | 35                                                  | 6.8                             | 0.016                                | 1700                       | X               | X   |
| GDB-250mA   | 250                | 35                                                  | 4.3                             | 0.28                                 | 1400                       | X               | X   |
| GDB-315mA   | 250                | 35                                                  | 3.1                             | 0.58                                 | 1300                       | X               | X   |
| GDB-400mA   | 250                | 35                                                  | 2.0                             | 0.18                                 | 1100                       | X               | X   |
| GDB-500mA   | 250                | 35                                                  | 0.26                            | 0.18                                 | 220                        | X               | X   |
| GDB-630mA   | 250                | 35                                                  | 0.20                            | 0.35                                 | 220                        | X               | X   |
| GDB-800mA   | 250                | 35                                                  | 0.14                            | 0.67                                 | 190                        | X               | X   |
| GDB-1A      | 250                | 35                                                  | 0.125                           | 0.60                                 | 200                        | X               | X   |
| GDB-1.25A   | 250                | 35                                                  | 0.096                           | 0.84                                 | 200                        | X               | X   |
| GDB-1.6A    | 250                | 35                                                  | 0.066                           | 1.6                                  | 190                        | X               | X   |
| GDB-2A      | 250                | 35                                                  | 0.043                           | 4.2                                  | 150                        | X               | X   |
| GDB-2.5A    | 250                | 35                                                  | 0.034                           | 6.1                                  | 150                        | X               | X   |
| GDB-3.15A   | 250                | 35                                                  | 0.025                           | 13                                   | 130                        | X               | X   |
| GDB-4A      | 250                | 40                                                  | 0.021                           | 22                                   | 130                        | X               | X   |
| GDB-5A      | 250                | 50                                                  | 0.014                           | 42                                   | 120                        | X               | X   |
| GDB-6.3A    | 250                | 63                                                  | 0.010                           | 69                                   | 120                        | X               | X   |
| GDB-8A      | 250                | 80                                                  | 0.010                           | N/A                                  | 120                        | X               | X   |
| GDB-10A     | 250                | 100                                                 | 0.008                           | N/A                                  | 120                        | X               | X   |

\* DC cold resistance (Measured at &lt;10% of rated current)

† Typical melting I<sup>2</sup>t (I<sup>2</sup>t was measured at listed interrupting rating and rated voltage)

‡ Maximum voltage drop (Voltage drop was measured at +20°C ambient temperature at rated current)

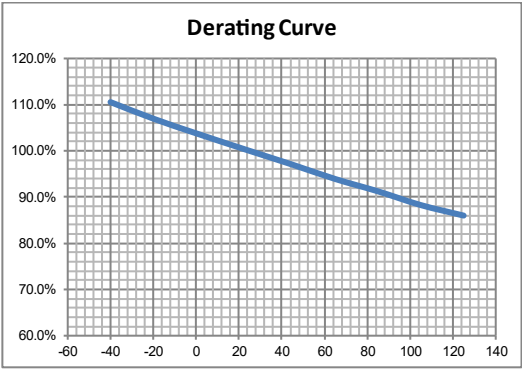
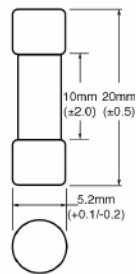
Operating temperature -40 °C to +125 °C with proper derating factor



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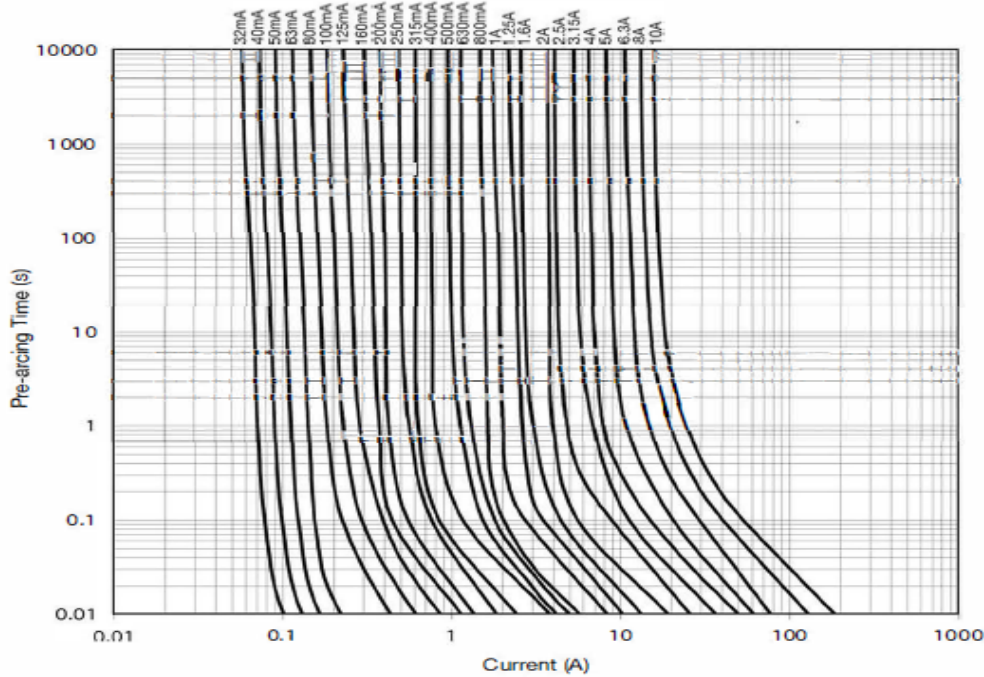
Dimensions-mm

Drawing not to scale



Time-Current Curve

Nominal Time-Current Characteristics



| Packaging code   |                                          |
|------------------|------------------------------------------|
| Packaging prefix | Description                              |
| BK               | 100 fuses packed into a cardboard carton |
| BK1              | 1,000 fuses packed into a polybag        |

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