



Inline bridge

## Silicon-Bridge Rectifiers

### GBI 15A ... GBI 15M

Forward Current: 15 A

Reverse Voltage: 50 to 1000 V

Publish Data

### Features

- max. solder temperature 260°C, max. 5s
- UL recognized, file no. E63532
- Standard packaging: bulk

### Mechanical Data

- Plastic case 32 \* 5,6 \* 17 [mm]
- Weight approx. 7g
- Terminals: plated terminals solderable per IEC 68-2-20
- Mounting position : any
- Marking : Type number

| Type    | Alternating input voltage<br>$V_{RMS}$<br>V | Repetitive peak reverse voltage<br>$V_{RRM}$<br>V |
|---------|---------------------------------------------|---------------------------------------------------|
| GBI 15A | 35                                          | 50                                                |
| GBI 15B | 70                                          | 100                                               |
| GBI 15D | 140                                         | 200                                               |
| GBI 15G | 280                                         | 400                                               |
| GBI 15J | 420                                         | 600                                               |
| GBI 15K | 560                                         | 800                                               |
| GBI 15M | 700                                         | 1000                                              |

| Absolute Maximum Ratings $T_c = 25^\circ\text{C}$ unless otherwise specified |                                                                              |                |                  |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------|------------------|
| Symbol                                                                       | Conditions                                                                   | Values         | Units            |
| $I_{FRM}$                                                                    | Repetitive peak forward current; $f > 15\text{ Hz}^{1)}$                     | 45             | A                |
| $I^2t$                                                                       | Rating for fusing, $t < 10\text{ ms}$                                        | 240            | A <sup>2</sup> s |
| $I_{FSM}$                                                                    | Peak forward surge current, 50 Hz half sine-wave<br>$T_A = 25^\circ\text{C}$ | 220            | A                |
| $I_{FAV}$                                                                    | Max. averaged fwd. current, R-load, $T_A = 50^\circ\text{C}^{1)}$            | 3,5            | A                |
| $I_{FAV}$                                                                    | Max. averaged fwd. current, C-load, $T_A = 50^\circ\text{C}^{1)}$            | 2,8            | A                |
| $I_{FAV}$                                                                    | Max. current with cooling fin, R-load, $T_c = 100^\circ\text{C}^{2)}$        | 15             | A                |
| $I_{FAV}$                                                                    | Max. current with cooling fin, C-load, $T_c = 100^\circ\text{C}^{2)}$        | 12             | A                |
| $R_{thA}$                                                                    | Thermal resistance junction to ambient <sup>1)</sup>                         | 20             | K/W              |
| $R_{thC}$                                                                    | Thermal resistance junction to case <sup>1)</sup>                            | 2,5            | K/W              |
| $T_j$                                                                        | Operating junction temperature                                               | - 50 ... + 150 | °C               |
| $T_s$                                                                        | Storage temperature                                                          | - 50 ... + 150 | °C               |

| Characteristics $T_c = 25^\circ\text{C}$ unless otherwise specified |                                                                              |        |               |
|---------------------------------------------------------------------|------------------------------------------------------------------------------|--------|---------------|
| Symbol                                                              | Conditions                                                                   | Values | Units         |
| $V_F$                                                               | Maximum forward. voltage,<br>$T_j = 25^\circ\text{C}$ ; $I_F = 7,5\text{ A}$ | 1,05   | V             |
| $I_R$                                                               | Maximum Leakage current,<br>$T_j = 25^\circ\text{C}$ ; $V_R = V_{RRM}$       | 10     | $\mu\text{A}$ |
| $C_j$                                                               | Typical junction capacitance per leg at V, MHz                               |        | pF            |



