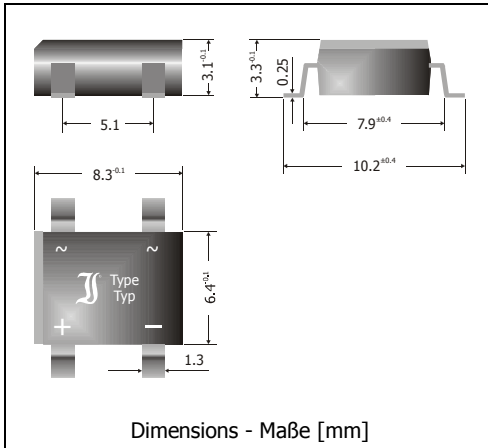


## B40S ... B500S

### Surface Mount Si-Bridge-Rectifiers Si-Brückengleichrichter für die Oberflächenmontage

Version 2012-10-04



Nominal current 1 A

Nennstrom

Alternating input voltage 40...500 V

Eingangswechselspannung

Plastic case SO-DIL 8.3 x 6.4 x 3.1

Kunststoffgehäuse SO-DIL

[mm]

Weight approx. – Gewicht ca.

0.4 g

Plastic material has UL classification 94V-0

Gehäusematerial UL94V-0 klassifiziert

Standard packaging taped and reeled

Standard Lieferform gegurtet auf Rolle



Recognized Product – Underwriters Laboratories Inc.® File E175067

Anerkanntes Produkt – Underwriters Laboratories Inc.® Nr. E175067

#### Maximum ratings

#### Grenzwerte

| Type<br>Typ | Max. alternating input voltage<br>Max. Eingangswechselspannung<br>$V_{VRMS}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzensperrensorgung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-------------|--|---|
| B40S        | 40   | 80  |
| B80S        | 80   | 160   |
| B125S       | 125  | 250   |
| B250S       | 250  | 600   |
| B380S       | 380  | 800   |
| B500S       | 500  | 1000  |

|  |                          |                |                              |
|--|--------------------------|----------------|------------------------------|
| Repetitive peak forward current<br>Periodischer Spitzenstrom   | $f > 15$ Hz              | $I_{FRM}$      | 10 A <sup>2)</sup>           |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen  | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 40/44 A                      |
| Rating for fusing, $t < 10$ ms<br>Grenzlastintegral, $t < 10$ ms                                     | $T_A = 25^\circ\text{C}$ | $i^2t$         | 8 A <sup>2</sup> s           |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur |                          | $T_j$<br>$T_s$ | -50...+150°C<br>-50...+150°C |

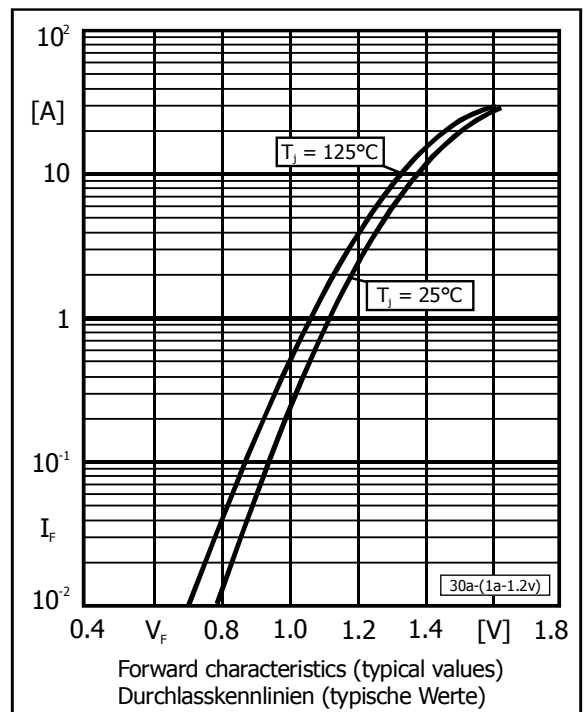
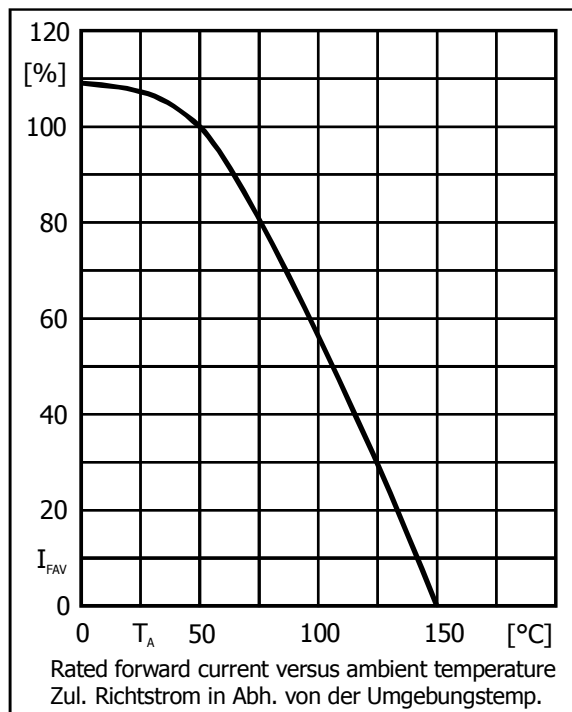
1 Per Diode – Pro Diode

2 Max. temperature of the terminals  $T_T = 100^\circ\text{C}$  – Max. Temperatur der Anschlüsse  $T_T = 100^\circ\text{C}$

**Characteristics**
**Kennwerte**

|   |                          |                    |                        |  |
|---|--------------------------|--------------------|------------------------|--|
| Max. average forward rectified current<br>Dauergrenzstrom                                   | $T_A = 50^\circ\text{C}$ | R-load<br>C-load   | $I_{FAV}$<br>$I_{FAV}$ | $1.0\text{ A}^{1)}$<br>$0.8\text{ A}^{1)}$ |
| Forward voltage – Durchlass-Spannung  | $T_j = 25^\circ\text{C}$ | $I_F = 1\text{ A}$ | $V_F$                  | $< 1.1\text{ V}^{2)}$                      |
| Leakage current – Sperrstrom  | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$    | $I_R$                  | $< 5\ \mu\text{A}$                         |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                          |                    | $R_{thA}$              | $< 60\text{ K/W}^{1)}$                     |

| Type<br>Typ | Max. admissible load capacitor<br>Max. zulässiger Ladekondensator<br>$C_L$ [ $\mu\text{F}$ ] | Min. required protective resistor<br>Min. erforderl. Schutzwiderstand<br>$R_t$ [ $\Omega$ ] |
|-------------|--|---|
| B40S        | 2500   | 2.0   |
| B80S        | 1250   | 4.0   |
| B125S       | 800  | 6.3   |
| B250S       | 333  | 15.0  |
| B380S       | 250  | 20.0  |
| B500S       | 200  | 25.0  |



- 1 Mounted on P.C. Board with 25 mm<sup>2</sup> copper pads at each terminal  
Montage auf Leiterplatte mit 25 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluss
- 2 Per Diode – Pro Diode