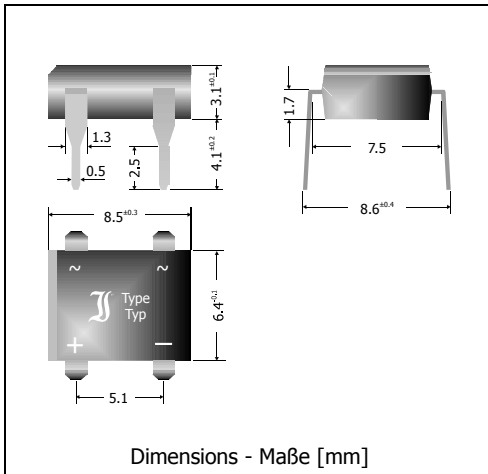



B40FD ... B380FD

Fast Switching Si-Bridge-Rectifiers Schnelle Si-Brückengleichrichter

Version 2009-01-07



| | |
|---|---|
| Nominal current Nennstrom | 1 A |
| Alternating input voltage Eingangswchelspannung | 40...380 V |
| Plastic case DIL Kunststoffgehäuse DIL | 8.3 x 6.4 x 3.1 [mm] |
| Weight approx. – Gewicht ca. | 0.4 g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert |  |
| Standard packaging: plastic tubes Standard Lieferform: Plastik-Schienen | |



Recognized Product – Underwriters Laboratories Inc.® File E175067
Anerkanntes Produkt – Underwriters Laboratories Inc.® Nr. E175067

Maximum ratings

Grenzwerte

| Type Typ | Max. alternating input voltage Max. Eingangswchelspannung V_{VRMS} [V] | Repetitive peak reverse voltage Periodische Spitzensperrspannung V_{RRM} [V] ¹⁾ |
|-------------|--|--|
| B40FD | 40 | 80 |
| B80FD | 80 | 160 |
| B125FD | 125 | 250 |
| B250FD | 250 | 600 |
| B380FD | 380 | 800 |

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

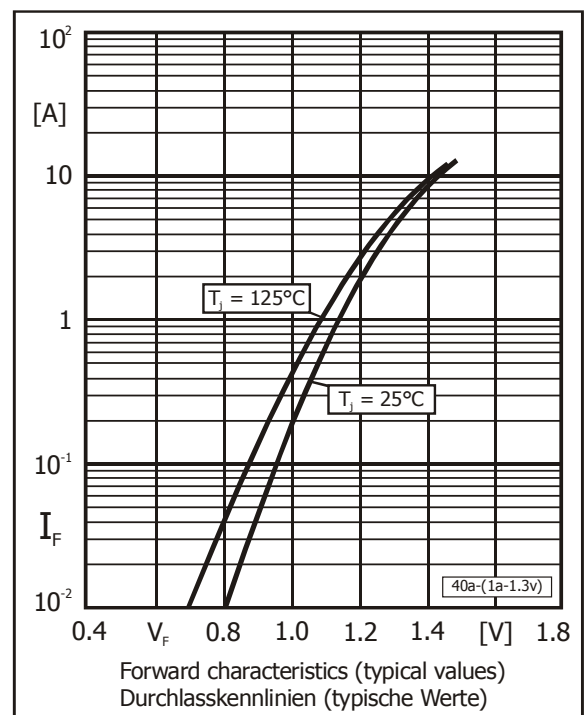
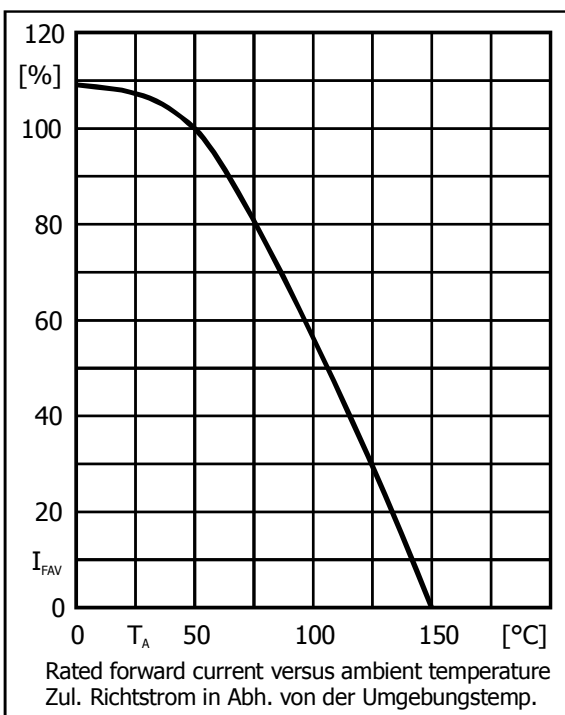
1 Valid per diode – Gültig pro Diode

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 Dauergrenzstrom | $T_A = 50^\circ\text{C}$ | R-load C-load | I_{FAV} I_{FAV} | $1.0\text{ A}^1)$ $0.8\text{ A}^1)$ |
| Forward voltage – Durchlass-Spannung | $T_j = 25^\circ\text{C}$ | $I_F = 1\text{ A}$ | V_F | $< 1.3\text{ V}^2)$ |
| Leakage current – Sperrstrom | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | $< 10\ \mu\text{A}$ |
| Reverse recovery time Sperrverzug | $I_F = 0.5\text{ A}$ through/über $I_R = 1\text{ A}$ to/auf $I_R = 0.25\text{ A}$ | | t_{rr} | $< 300\text{ ns}$ |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | R_{thA} | $< 60\text{ K/W}^1)$ |

| Type Typ | Max. admissible load capacitor Max. zulässiger Ladekondensator CL [μF] | Min. required protective resistor Min. erforderl. Schutzwiderstand Rt [Ω] |
|-------------|---|--|
| B40FD | 2500 | 2.0 |
| B80FD | 1250 | 4.0 |
| B125FD | 800 | 6.3 |
| B250FD | 333 | 15.0 |
| B380FD | 250 | 20.0 |



- 1 Mounted on P.C. Board with 25 mm² copper pads at each terminal
Montage auf Leiterplatte mit 25 mm² Kupferbelag (Löt-pad) an jedem Anschluss
- 2 Valid per diode – Gültig pro Diode