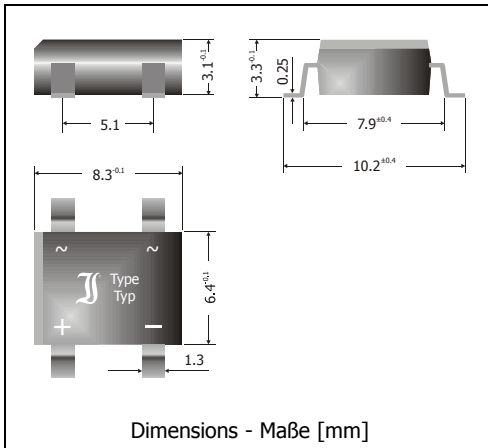


## B40S ... B500S

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

Version 2006-07-12



Nominal current Nennstrom	1 A
Alternating input voltage Eingangswchelspannung	40...500 V
Plastic case SO-DIL Kunststoffgehäuse SO-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 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 Typ	Max. alternating input voltage Max. Eingangswchelspannung $V_{VRMS}$ [V]	Repetitive peak reverse voltage Periodische Spitzensperrspannung $V_{RRM}$ [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 Periodischer Spitzenstrom	$f > 15$ Hz	$I_{FRM}$	10 A <sup>2)</sup>
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle	$T_A = 25^\circ\text{C}$	$I_{FSM}$	40/44 A
Rating for fusing, $t < 10$ ms Grenzlastintegral, $t < 10$ ms	$T_A = 25^\circ\text{C}$	$i^2t$	8 A <sup>2</sup> s
Operating junction temperature – Sperrschichttemperatur		$T_j$	-50...+150°C
Storage temperature – Lagerungstemperatur		$T_s$	-50...+150°C

1 Per Diode – Pro Diode

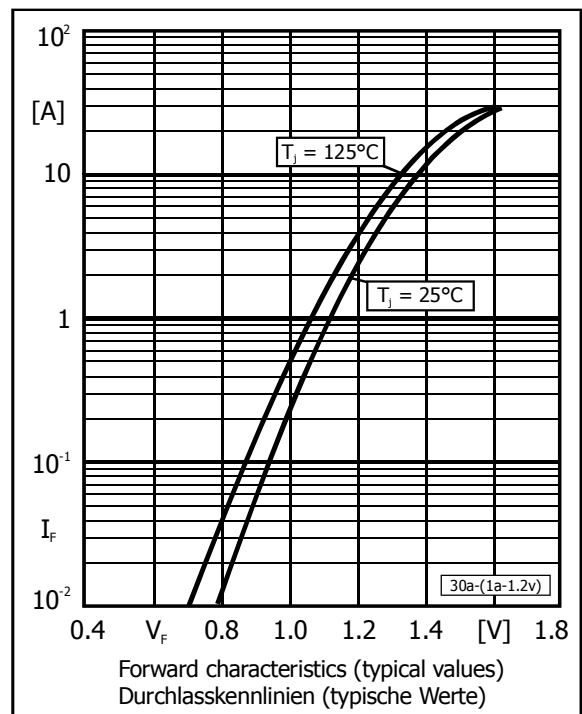
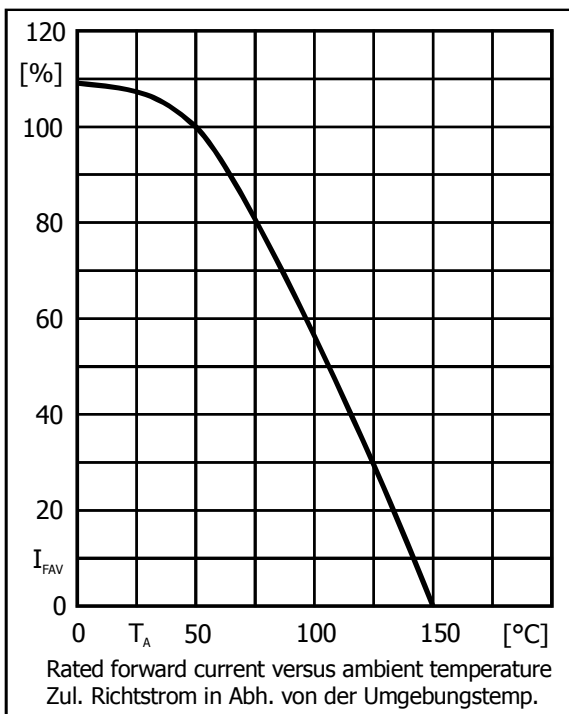
2 Max. temperature of the terminals  $T_T = 100^\circ\text{C}$  – Max. Temperatur der Anschlüsse  $T_T = 100^\circ\text{C}$

**Characteristics**

**Kennwerte**

Max. average forward rectified current 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	$T_j = 25^\circ\text{C}$	$I_F = 1\text{ A}$	$V_F$	$< 1.1\text{ V}^2)$
Leakage current – Sperrstrom	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$	$I_R$	$< 10\ \mu\text{A}$
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 $C_L\ [\mu\text{F}]$	Min. required protective resistor Min. erforderl. Schutzwiderstand $R_t\ [\Omega]$
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