

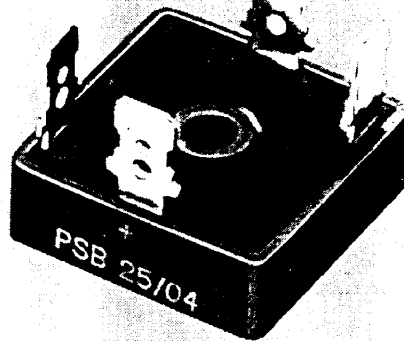
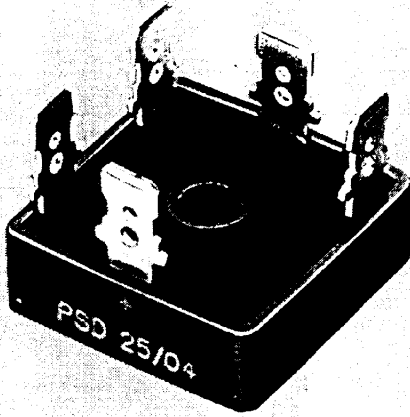


BEVO Halbleitertechnik

Herstellung und Vertrieb elektronischer Bauelemente GmbH

Leistungs-Brückengleichrichter Power bridge rectifiers

PSB 25 Single Phase
PSD 25 Three Phase



MERKMALE

- Niedrige Durchlaßspannung
- Stoßstrombelastung bis 400 A
- Einfache Chassismontage
- Sperrspannung bis 1800 V
- Sehr gute Wärmeableitung
- Glaspassivierte Dioden ab 1200 V

TYPISCHE ANWENDUNGEN

- Netzgleichrichter für Antriebsumrichter
- Batterie-Ladegleichrichter
- Feldgleichrichter für Gleichstrommotoren
- Ein- und Dreiphasen-Gleichrichter zur Gleichstromversorgung elektrischer Geräte

FEATURES

- Low forward voltage drop
- Surge current upto 400 A
- Easy chassis mounting
- Blocking voltage upto 1800 V
- High thermal conductivity package
- Glas passivated diode chips above 1200 V

TYPICAL APPLICATIONS

- Input rectifiers for variable frequency drives
- Battery charger rectifiers
- Rectifiers for DC motor field supplies
- Single and three phase rectifiers for power supplies

V_{RRM} (V)	V_{RSM} (V)	V_{VRSM} (V)	EINPHASIG – SINGLE PHASE		DREIPHASIG – THREE PHASE	
			Typ – Type	Schaltung – circuit	Typ – Type	Schaltung – circuit
100	150	35	PSB 25/01		PSD 25/01	
200	300	60	PSB 25/02		PSD 25/02	
400	500	125	PSB 25/04		PSD 25/04	
600	700	200	PSB 25/06		PSD 25/06	
800	900	250	PSB 25/08		PSD 25/08	
1000	1100	300	PSB 25/10		PSD 25/10	
1200	1300	380	PSB 25/12		PSD 25/12	
1400	1500	440	PSB 25/14		PSD 25/14	
1600	1700	500	PSB 25/16		PSD 25/16	
1800	1900	575	PSB 25/18		PSD 25/18	

V_{RRM} : Periodische Spitzensperrspannung
 V_{RSM} : Stoßspitzensperrspannung
 V_{VRMS} : Empfohlene Anschlußspannung

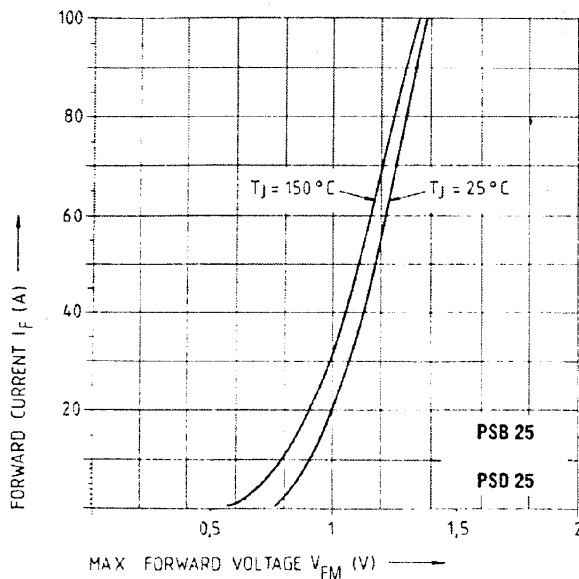
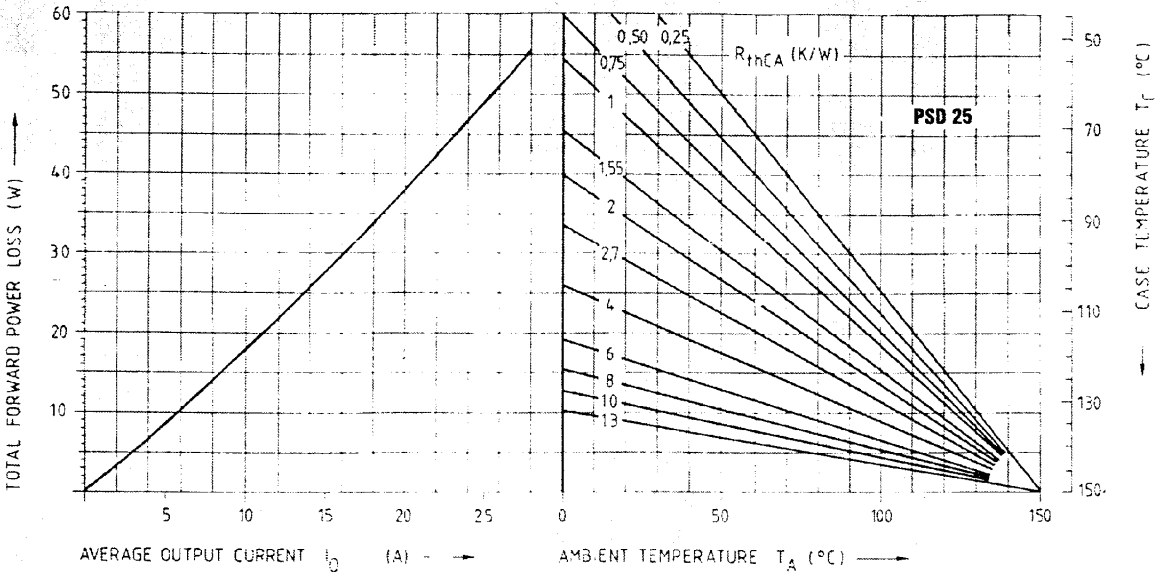
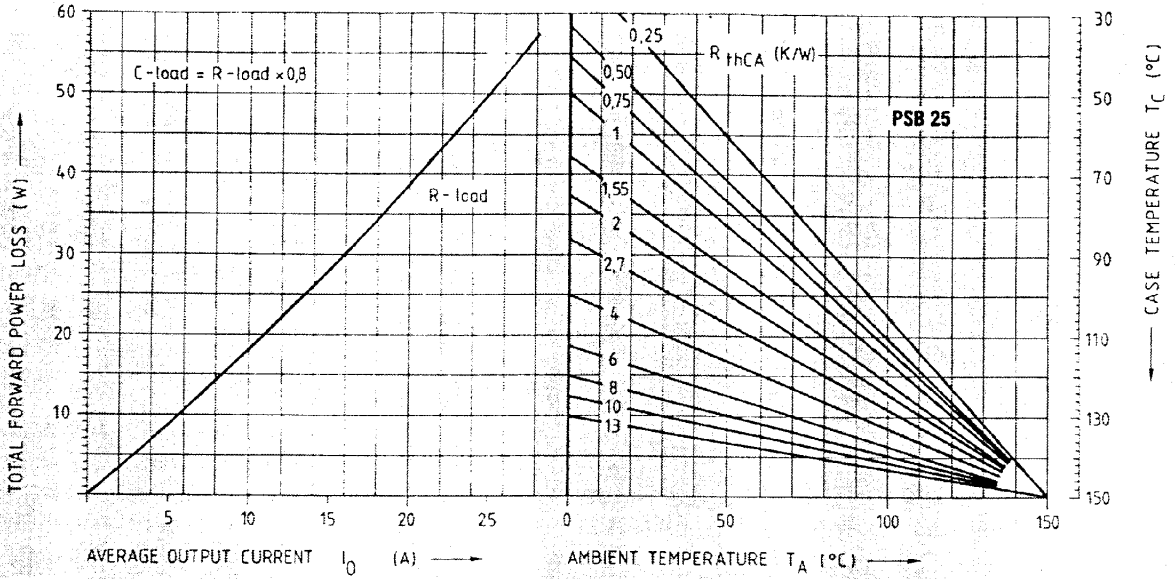
Repetitive peak reverse voltage
 Non-repetitive peak reverse voltage
 R. M. S. Input voltage

Leistungs-Brückengleichrichter

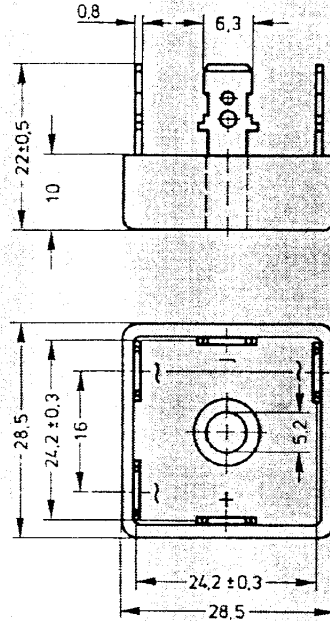
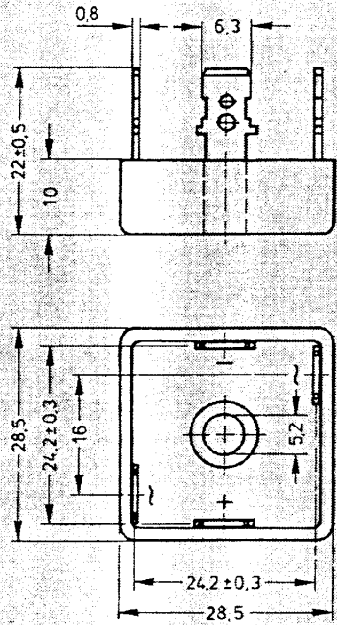
Power bridge rectifiers

Symbol	Unit	Ratings	Conditions	PSB 25	PSD 25
I_{dAV}	A	Grenzgleichstrom Max. d. c. output current	freely suspended $T_{amb} = 45^{\circ}C$	4	4
			on painted metal sheet of min. 250 x 250 x 1 mm $T_{amb} = 45^{\circ}C$	12	13
			on heatsink K5/100 $T_{amb} = 45^{\circ}C$	16	17
			on heatsink K1/120 $T_{amb} = 45^{\circ}C$	20	22
I_{FSM}	A	Stoßstrom-Grenzwert Peak one-cycle surge current	$T_{vj} = 45^{\circ}C$ $V_R = 0$ $t = 10$ ms (50 Hz) $t = 8,3$ ms (60 Hz)	400 440	400 440
			$T_{vj} = T_{vjmax}$ $V_R = 0$ $t = 10$ ms (50 Hz) $t = 8,3$ ms (60 Hz)	360 400	360 400
$\int i^2 dt$	A ² s	Grenzlastintegral Max. permissible surge energy	$T_{vj} = 45^{\circ}C$ $V_R = 0$ $t = 10$ ms (50 Hz) $t = 8,3$ ms (60 Hz)	800 800	800 800
			$T_{vj} = T_{vjmax}$ $V_R = 0$ $t = 10$ ms (50 Hz) $t = 8,3$ ms (60 Hz)	650 650	650 650
V_{FM}	V	Durchlaßspannung Peak forward voltage drop	$I_{RM} = 150$ A $T_{vj} = 25^{\circ}C$	2,2	2,2
T_{vj}	$^{\circ}C$	Sperrschichttemperatur Junction operating temperature		-40 +150	-40 +150
T_{stg}	$^{\circ}C$	Lagerungstemperatur Storage temperature	$T_{vj} = T_{vjmax}$	-40 +150	-40 +150
I_{RD}	mA	Oberer Sperrstrom Direct reverse current	$T_{vj} = 25^{\circ}C$ $T_{vj} = T_{vjmax}$ $V_R = V_{RRM}$	0,3 5	0,3 5
r_F	m Ohm	Ersatzwiderstand Slope resistance	$T_{vj} = T_{vjmax}$	12	12
V_{TO}	V	Schleußenspannung Threshold voltage	$T_{vj} = T_{vjmax}$	0,85	0,85
R_{thj-c}	K/W	Wärmewiderstand Sperrschicht-Gehäuse Thermal resistance junction to case	total	2	1,75
R_{thj-h}	K/W	Wärmewiderstand Sperrschicht-Kühlkörper Thermal resistance junction to heat sink	total	2,15	1,9
V_{isol}	V~	Isolationsprüfspannung Isolations voltage	50 - 60 Hz RMS $t = 1$ min $t = 1$ s	2500 3000	2500 3000
M_1	Nm	Drehmoment für die Montage auf dem Kühlkörper Torque for mounting on to the heatsink	Case to heatsink	2 $\pm 10\%$	2 $\pm 10\%$
RC	μF Ohm	Empfohlene TSE-Beschallung Recommended snurred network		0,1 +50	0,1 +50
Fu	A	Empfohlene Sicherung Recommended fuse		20	20
W	g	Gewicht Weight		22	22

Leistungs-Brücker Gleichrichter Power bridge rectifiers



PSB 25



PSD 25

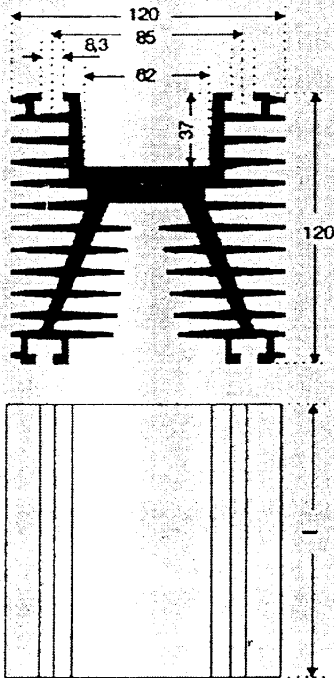
Dimensions in mm

Kühlkörper – Heatsinks

K1/120

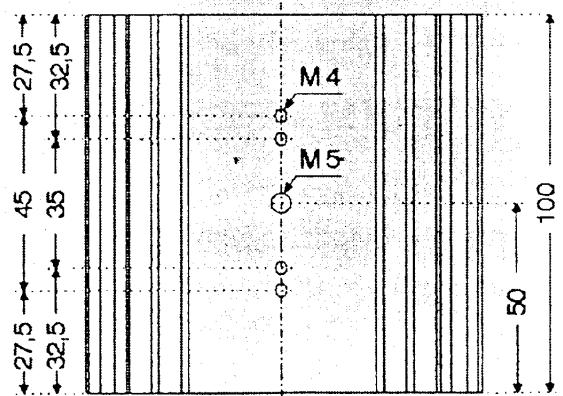
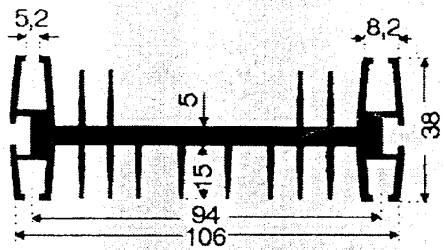
$$\frac{W}{I} = 11,3 \frac{\text{kg}}{\text{m}}$$

$I = 120$



K5/100

$$\frac{W}{I} = 2,8 \frac{\text{kg}}{\text{m}}$$



Dimensions in mm