

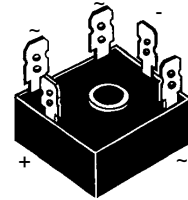
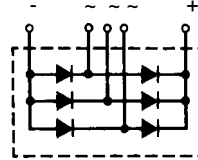
Three Phase Rectifier Bridges with Semi Fast Diodes

$$I_{dAVM} = 18 \text{ A}$$

$$V_{RRM} = 1200-1600 \text{ V}$$

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
1200	1200	VUO 18-12DT8
1400	1400	VUO 18-14DT8
1600	1600	VUO 18-16DT8



Symbol	Test Conditions	Maximum Ratings	Features
I_{dAV}	$T_C = 85^\circ\text{C}$, module	14 A	<ul style="list-style-type: none"> Package with 1/4" fast-on terminals Isolation voltage 3000 V~ Planar passivated chips Blocking voltage up to 1600 V Low forward voltage drop UL registered E 72873
I_{dAVM}	$T_C = 63^\circ\text{C}$, module	18 A	
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	t = 10 ms (50 Hz), sine	300 A
		t = 8.3 ms (60 Hz), sine	330 A
I^2t	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine	270 A
		t = 8.3 ms (60 Hz), sine	300 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine	450 A ² s
		t = 8.3 ms (60 Hz), sine	460 A ² s
T_{VJ}	$V_R = 0$	t = 10 ms (50 Hz), sine	365 A ² s
		t = 8.3 ms (60 Hz), sine	380 A ² s
T_{VJM}		-40...+150 °C	
T_{stg}		150 °C	
V_{ISOL}	50/60 Hz, RMS $I_{ISOL} \leq 1 \text{ mA}$	t = 1 min	2500 V~
		t = 1 s	3000 V~
M_d	Mounting torque (M5) (10-32 UNF)		2 ± 10 % Nm
			18 ± 10 % lb.in.
Weight	typ.		22 g

Features

- Package with 1/4" fast-on terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1600 V
- Low forward voltage drop
- UL registered E 72873

Applications

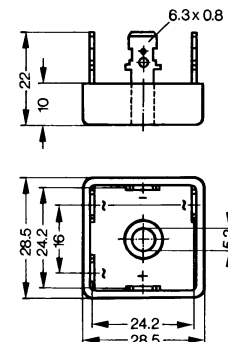
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with one screw
- Space and weight savings
- Improved temperature and power cycling
- **Up to 10 dB lower EMI/RFI compared to standard rectifier**

Symbol	Test Conditions	Characteristic Values
I_R	$T_{VJ} = 25^\circ\text{C}$; $V_R = V_{RRM}$	≤ 0.3 mA
	$T_{VJ} = 125^\circ\text{C}$; $V_R = V_{RRM}$	≤ 5.0 mA
V_F	$I_F = 55 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	≤ 1.85 V
V_{T0}	For power-loss calculations only	1.2 V
r_T	$T_{VJ} = T_{VJM}$	16 mΩ
t_{rr}	$T_{VJ} = 25^\circ\text{C}$; $I_F = 10 \text{ A}$; -di/dt = 10 A/μs, $V_R = 1/2 V_{RRM}$	≤ 1.5 μs
R_{thJC}	per diode; 120° el	9.3 K/W
	per module	1.55 K/W
R_{thJK}	per diode; 120° e	10.2 K/W
	per module	1.7 K/W
d_s	Creeping distance on surface	12.7 mm
d_A	Creepage distance in air	9.4 mm
a	Max. allowable acceleration	50 m/s ²

Dimensions in mm (1 mm = 0.0394")



Data according to IEC 60747