

Three Phase Rectifier Bridge

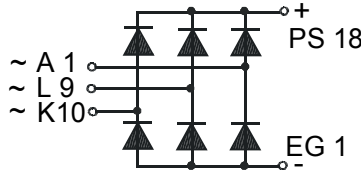
PSD 98

$$I_{dAV} = 100 \text{ A}$$

$$V_{RRM} = 800-1600 \text{ V}$$

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type
800	800	PSD 98/08
1200	1200	PSD 98/12
1400	1400	PSD 98/14
1600	1600 </td <td>PSD 98/16</td>	PSD 98/16



Symbol	Test Conditions	Maximum Ratings
I_{dAVM}	$T_C = 85 \text{ }^\circ\text{C}$, (per module)	100 A
I_{FSM}	$T_{VJ} = 45 \text{ }^\circ\text{C}$ t = 10 ms (50 Hz), sine	750 A
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	820 A
	$T_{VJ} = T_{VJM}$ t = 10 ms (50 Hz), sine	600 A
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	700 A
$\int i^2 dt$	$T_{VJ} = 45 \text{ }^\circ\text{C}$ t = 10 ms (50 Hz), sine	2800 A ² s
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	2820 A ² s
	$T_{VJ} = T_{VJM}$ t = 10 ms (50 Hz), sine	2200 A ² s
	$V_R = 0$ t = 8.3 ms (60 Hz), sine	2250 A ² s
T_{VJ}		-40... + 150 °C
T_{VJM}		150 °C
T_{stg}		-40... + 150 °C
V_{ISOL}	50/60 Hz, RMS t = 1 min	2500 V~
	$I_{ISOL} \leq 1 \text{ mA}$ t = 1 s	3000 V~
M_d	Mounting torque (M4)	1.5 - 2.0 Nm
Weight	typ.	22 g

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar glass passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering
- UL registered, E 148688

Applications

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

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- High power density
- Small and light weight

Symbol	Test Conditions	Characteristic Value
I_R	$V_R = V_{RRM}$, $T_{VJ} = 25 \text{ }^\circ\text{C}$	≤ 0.5 mA
	$V_R = V_{RRM}$, $T_{VJ} = T_{VJM}$	≤ 5 mA
V_F	$I_F = 150 \text{ A}$, $T_{VJ} = 25 \text{ }^\circ\text{C}$	≤ 1.6 V
V_{TO}	For power-loss calculations only	0.8 V
r_T		6 mΩ
R_{thJC}	per diode; DC current	1.2 K/W
	per module	0.2 K/W
R_{thJK}	per diode; DC current	1.5 K/W
	per module	0.25 K/W
d_s	Creeping distance on surface	11.2 mm
d_A	Creeping distance in air	9.7 mm
a	Max. allowable acceleration	50 m/s ²

Data according to IEC 60747 refer to a single diode unless otherwise stated

Package style and outline

Dimensions in mm (1mm = 0.0394")

