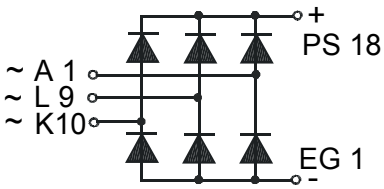
Three Phase Rectifier Bridge

PSD 108

I_{dAV} = 117 A
V_{RRM} = 800-1600V

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type
800	800	PSD 108/08
1200	1200	PSD 108/12
1400	1400	PSD 108/14
1600	1600	PSD 108/16



Symbol	Test Conditions		Maximum Ratings	
I_{dAVM}	T_C =100 °C, (per module)		117	A
I_{FSM}	T_{VJ} = 45 °C	t = 10 ms (50 Hz), sine	900	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	990	A
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	770	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	850	A
$\int i^2 dt$	T_{VJ} = 45 °C	t = 10 ms (50 Hz), sine	4050	A²s
	V_R = 0	t = 8.3 ms (60 Hz), sine	4050	A²s
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	2950	A²s
	V_R = 0	t = 8.3 ms (60 Hz), sine	2950	A²s
T_{VJ}			-40... + 150	°C
T_{VJM}			150	°C
T_{stg}			-40... + 125	°C
V_{ISOL}	50/60 Hz, RMS t = 1 min		2500	V~
	I_{ISOL} ≤ 1 mA t = 1 s		3000	V~
M_d	Mounting torque	(M4)	1.5 - 2.0	Nm
Weight	typ.		22	g

Symbol	Test Conditions		Characteristic Value	
I_R	V_R = V_{RRM}, T_{VJ} = 25°C	≤	0.5	mA
	V_R = V_{RRM}, T_{VJ} = T_{VJM}	≤	5	mA
V_F	I_F = 200 A, T_{VJ} = 25 °C	≤	1.75	V
V_{TO}	For power-loss calculations only		0.8	V
r_T			4.0	mΩ
R_{thJC}	per diode; DC current		0.85	K/W
	per module		0.142	K/W
R_{thJK}	per diode; DC current		1.15	K/W
	per module		0.192	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/s²

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

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

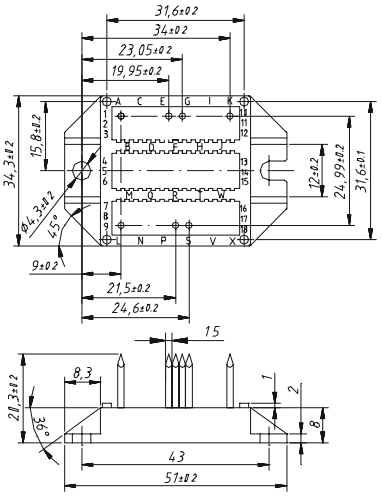
- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

Package style and outline

Dimensions in mm (1mm = 0.0394“)



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