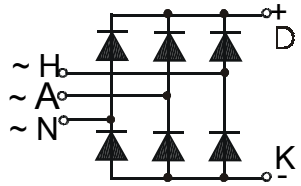
Three Phase Rectifier Bridge

PSD 86

I_{dAV} = 86 A
V_{RRM} = 600-1600 V

Preliminary Data Sheet

V_{RSM} V_{DSM} (V)	V_{RRM} V_{DRM} (V)	Type
700	600	PSD 86/06
900	800	PSD 86/08
1300	1200	PSD 86/12
1500	1400	PSD 86/14
1900	1600	PSD 86/16



Symbol	Test Conditions		Maximum Ratings	
I^*_{dAV}	T_C = 90 °C,	(per module)	86	A
I_{FSM}	T_{VJ} = 45 °C	t = 10 ms (50 Hz), sine	530	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	570	A
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	480	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	520	A
$\int i^2 dt$	T_{VJ} = 45 °C	t = 10 ms (50 Hz), sine	1400	A²s
	V_R = 0	t = 8.3 ms (60 Hz), sine	1360	A²s
	T_{VJ} = T_{VJM}	t = 10 ms (50 Hz), sine	1150	A²s
	V_R = 0	t = 8.3 ms (60 Hz), sine	1140	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 - 1.8	Nm
			14 - 16	lb.in.
Weight	typ.		16	g

Symbol	Test Conditions		Characteristic Value	
I_R	V_R = V_{RRM}, T_{VJ} = T_{VJM}	≤	3	mA
	V_R = V_{RRM}, T_{VJ} = 25°C	≤	0.5	mA
V_F	I_F = 80 A, T_{VJ} = 25 °C	≤	1.50	A
V_{TO}	For power-loss calculations only		0.8	V
r_T			7.5	mΩ
R_{thJC}	per diode; DC		1.2	K/W
	per module		0.2	K/W
R_{thJK}	per diode; DC		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/s²

Data according to IEC 60747 refer to a single diode unless otherwise stated
*- for resistive load at bridge output

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

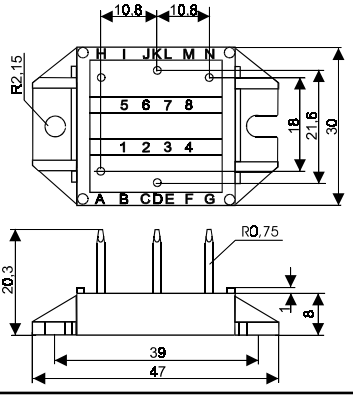
- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

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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