

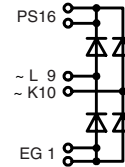
Single Phase Rectifier Bridge in ECO-PAC 2

$$I_{dAV} = 78 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

Preliminary data

V_{RSM} V	V_{RRM} V	Types
900	800	VBO 78-08NO7
1300	1200	VBO 78-12NO7
1500	1400	VBO 78-14NO7
1700	1600	VBO 78-16NO7
1900	1800	VBO 78-18NO7



Pin arrangement see outlines

Symbol	Conditions		Maximum Ratings	
I _{dAV} ①	T _C = 100°C, module		78	A
I _{FSM}	T _{VJ} = 45°C; V _R = 0	t = 10 ms (50 Hz), sine	750	A
		t = 8.3 ms (60 Hz), sine	820	A
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	600	A
		t = 8.3 ms (60 Hz), sine	700	A
I ² t	T _{VJ} = 45°C V _R = 0	t = 10 ms (50 Hz), sine	2800	A²s
		t = 8.3 ms (60 Hz), sine	2820	A²s
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	2200	A²s
		t = 8.3 ms (60 Hz), sine	2250	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	Nm
			14 - 18	lb.in.
Weight	typ.		22	g

Features

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

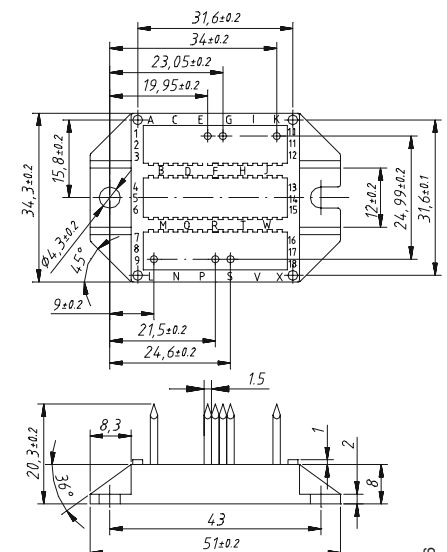
Applications

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

Advantages

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

Dimensions in mm (1 mm = 0.0394")



Symbol	Conditions	Characteristic Values
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 0.5 \text{ mA}$
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq 5 \text{ mA}$
V_F	$I_F = 150 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 1.6 \text{ V}$
V_{T0}	For power-loss calculations only	0.8 V
r_T		6 mΩ
R_{thJC}	per diode; DC current	1.2 K/W
R_{thJH}	per module	0.3 K/W
	per diode, DC current (typ.)	1.5 K/W
	per module (typ.)	0.375 K/W
d_s	Creeping distance on surface	11.2 mm
d_A	Creepage 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
① for resistive load at bridge output.

IXYS reserves the right to change limits, test conditions and dimensions.