

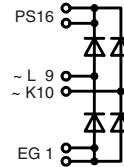
# Single Phase Rectifier Bridge

## 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	$T_C = 100^\circ\text{C}$ , module	78	A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}$ ; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	750 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	820 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	600 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	700 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	2800 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	2820 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	2200 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	2250 A <sup>2</sup> s
$T_{VJ}$		-40...+150	$^\circ\text{C}$
$T_{VJM}$		150	$^\circ\text{C}$
$T_{stg}$		-40...+125	$^\circ\text{C}$
$V_{ISOL}$	50/60 Hz, RMS $I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ min}$	2500 V~
		$t = 1 \text{ s}$	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

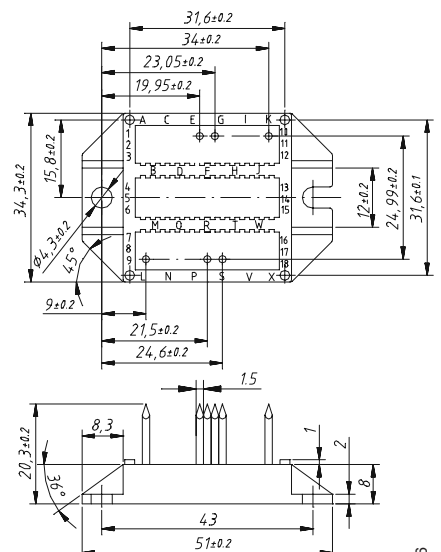
### Applications

- 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 mA
		$\leq$	5 mA
$V_F$	$I_F = 150 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$	$\leq$	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	0.3 K/W
$R_{thJH}$	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 <sup>2</sup>

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.