

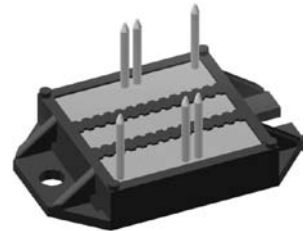
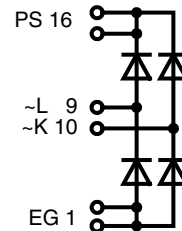
Single Phase Rectifier Bridge in ECO-PAC 2

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

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

Preliminary data

V_{RSM} V_{DSM} V	V_{RRM} V_{DRM} V	Type
900	800	VBO 78-08NO7
1300	1200	VBO 78-12NO7
1500	1400	VBO 78-14NO7
1700	1600	VBO 78-16NO7



Symbol	Conditions	Maximum Ratings	
I_{dAV} ①	$T_C = 100^\circ\text{C}$, module	78	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	750	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	820	A
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz)	600	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	700	A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz)	2800	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	2820	A ² s
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz)	2200	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz)	2250	A ² s
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+125	°C
V_{ISOL}	50/60 Hz, RMS $t = 1 \text{ min}$	2500	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000	V~
M_d	Mounting torque (M4)	1.5 - 2	Nm
Weight	Typ.	22	g

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1600 V
- 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

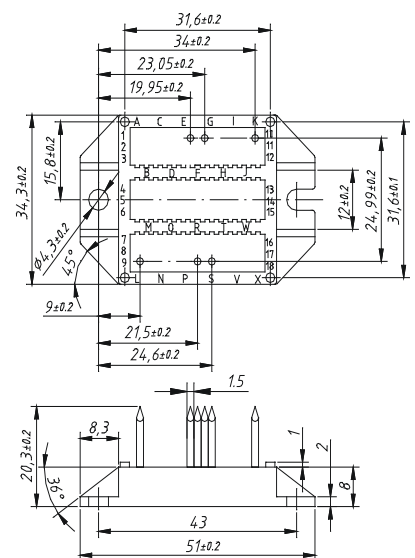
Advantages

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

Symbol	Conditions	Characteristic Values	
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = T_{VJM}$	≤ 0.5	mA
		≤ 5	mA
V_F	$I_F = 150 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	≤ 1.6	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
	per module	0.3	K/W
R_{thCH}	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 and refer to a single diode unless otherwise stated.

Dimensions in mm (1 mm = 0.0394")



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

© IXYS All rights reserved

20090317a