

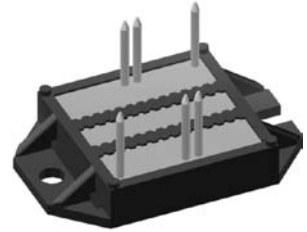
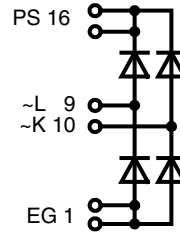
Single Phase Rectifier Bridge in ECO-PAC 2

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

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

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}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz)	750 A
		$t = 8.3 \text{ ms}$ (60 Hz)	820 A
	$T_{VJ} = T_{VJM}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz)	600 A
		$t = 8.3 \text{ ms}$ (60 Hz)	700 A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz)	2800 A ² s
		$t = 8.3 \text{ ms}$ (60 Hz)	2820 A ² s
	$T_{VJ} = T_{VJM}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz)	2200 A ² s
		$t = 8.3 \text{ ms}$ (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 $I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ min}$	2500 V~
		$t = 1 \text{ s}$	3000 V~
M_d	Mounting torque (M4)	1.5 - 2	Nm
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

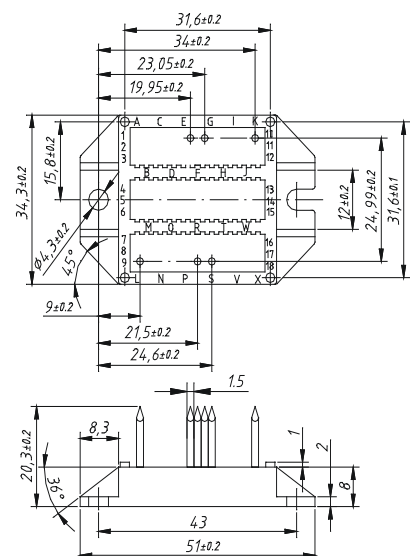
Advantages

- 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	$V_R = V_{RRM}$	$T_{VJ} = 25^\circ\text{C}$	$\leq 0.5 \text{ mA}$
		$T_{VJ} = T_{VJM}$	$\leq 5 \text{ mA}$
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
	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.

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