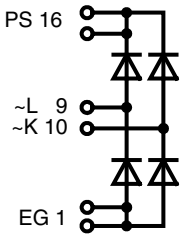
Single Phase Rectifier Bridge
in ECO-PAC 2

I_{dAV} = 78 A
V_{RRM} = 800-1600 V

Preliminary data

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



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

Symbol	Conditions		Characteristic Values	
I_R	$V_R = V_{RRM}$	T_{VJ} = 25°C	≤ 0.5	mA
		$T_{VJ} = T_{VJM}$	≤ 5	mA
V_F	I_F = 150 A	T_{VJ} = 25°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_{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^2

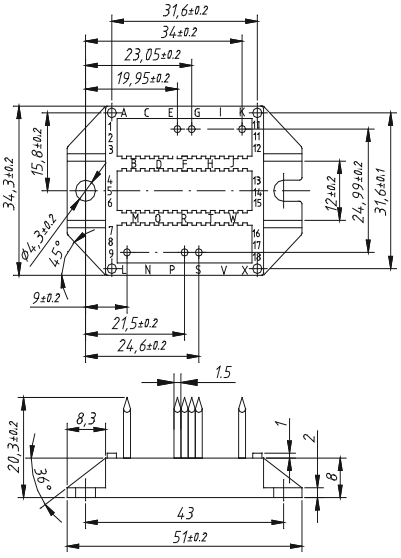
Data according to IEC 60747 and refer to a single diode unless otherwise stated.

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
- UL registered E 72873

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 weigt

Dimensions in mm (1 mm = 0.0394“)



20100706b