

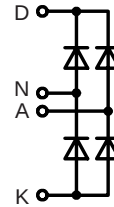
Single Phase Rectifier Bridge

Preliminary data

$$I_{dAVM} = 21 \text{ A}$$

$$V_{RRM} = 600-1200 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
700	600	VBO 19-06NO7
900	800	VBO 19-08NO7
1300	1200	VBO 19-12NO7



Symbol	Conditions	Maximum Ratings	
$I_{dAV} \text{ ①}$	$T_C = 100^\circ\text{C}$, module	21	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	100 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	106 A
	$T_{VJ} = T_{VJM}$	$t = 10 \text{ ms}$ (50 Hz), sine	85 A
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	90 A
I^2t	$T_{VJ} = 45^\circ\text{C}$	$t = 10 \text{ ms}$ (50 Hz), sine	50 A ² s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	47 A ² s
	$T_{VJ} = T_{VJM}$	$t = 10 \text{ ms}$ (50 Hz), sine	36 A ² s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	33 A ² 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 $t = 1 \text{ min}$	2500	V~
	$I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	3000	V~
M_d	Mounting torque (M4)	1.5 - 2	Nm
		14 - 18	lb.in.
Weight	typ.	18	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

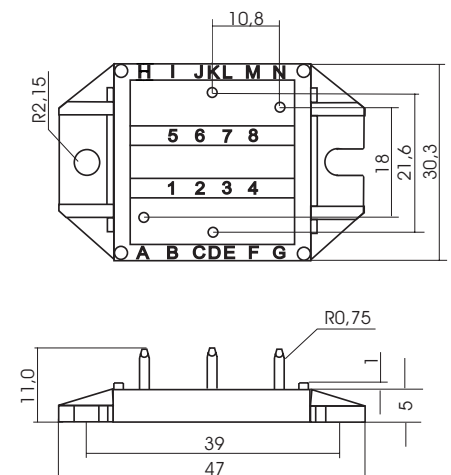
- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- Small and light weight

Dimensions in mm (1 mm = 0.0394")

Symbol	Conditions	Characteristic Values	
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$ 0.3	mA
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	$\leq$ 5	mA
V_F	$I_F = 7 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq$ 1.12	V
V_{T0}	For power-loss calculations only	0.8	V
r_T		40	m Ω
R_{thJC}	per diode; DC current	2.3	K/W
	per module	0.58	K/W
R_{thJH}	per diode, DC current	2.8	K/W
	per module	0.7	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.

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