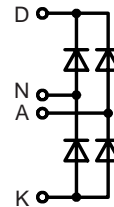


# Single Phase Rectifier Bridge

**$I_{dAVM} = 21\text{ A}$**   
 **$V_{RRM} = 600-1200\text{ V}$**

Preliminary data

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



Symbol	Conditions	Maximum Ratings	
$I_{dAV}$ 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
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	85 A
		$t = 8.3\text{ ms}$ (60 Hz), sine	90 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	50 A <sup>2</sup> s
		$t = 8.3\text{ ms}$ (60 Hz), sine	47 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	36 A <sup>2</sup> s
		$t = 8.3\text{ ms}$ (60 Hz), sine	33 A <sup>2</sup> 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
		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

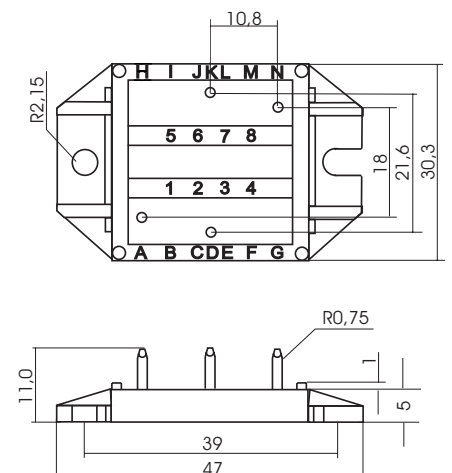
## Advantages

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

Symbol	Conditions	Characteristic Values	
$I_R$	$V_R = V_{RRM}$ ; $V_R = V_{RRM}$ ;	$T_{VJ} = 25^\circ\text{C}$	$\leq 0.3\text{ mA}$
		$T_{VJ} = T_{VJM}$	$\leq 5\text{ mA}$
$V_F$	$I_F = 7\text{ A}$ ;	$T_{VJ} = 25^\circ\text{C}$	$\leq 1.12\text{ V}$
$V_{T0}$	For power-loss calculations only		0.8 V
$r_T$			40 mΩ
$R_{thJC}$	per diode; DC current	per module	2.3 K/W
		per module	0.58 K/W
$R_{thJH}$	per diode, DC current	per module	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 <sup>2</sup>

Data according to IEC 60747 refer to a single diode unless otherwise stated  
 ① for resistive load at bridge output.

## Dimensions in mm (1 mm = 0.0394")



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