

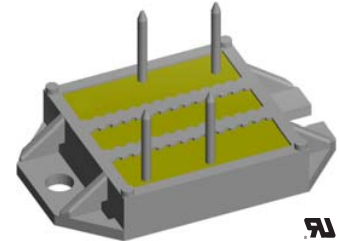
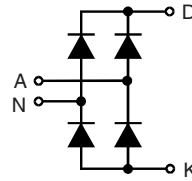
## Single Phase Rectifier Bridge

$$I_{dAV} = 68 \text{ A}$$

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

Preliminary data

$V_{RSM}$ V	$V_{RRM}$ V	Types
900	800	VBO 68-08NO7
1300	1200	VBO 68-12NO7
1700	1600	VBO 68-16NO7



Symbol	Conditions	Maximum Ratings	
$I_{dAV}^*$	$T_C = 90^\circ\text{C}$ , module	68	A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	530 A 570 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	480 A 520 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	1400 A <sup>2</sup> s 1360 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	1150 A <sup>2</sup> s 1140 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	t = 1 min	2500 V~
	$I_{ISOL} \leq 1 \text{ mA}$	t = 1 s	3000 V~
$M_d$	Mounting torque (M4)	1.5 - 2 14 - 18	Nm 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
- UL registered E 72873

### Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

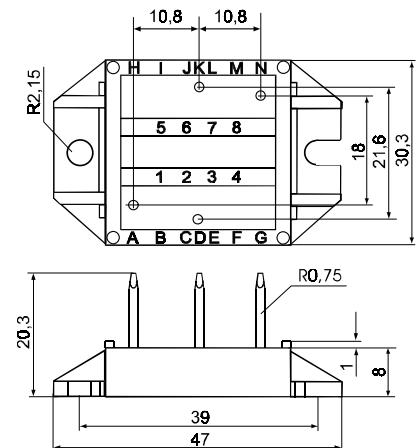
### Advantages

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

Symbol	Conditions	Characteristic Values	
$I_R$	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	$\leq$	0.5 mA
	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$	$\leq$	3 mA
$V_F$	$I_F = 80 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	$\leq$	1.5 V
$V_{TO}$	For power-loss calculations only		0.8 V
$r_T$			7.5 mΩ
$R_{thJC}$	per diode; DC current		1.2 K/W
	per module		0.3 K/W
$R_{thJH}$	per diode, DC current		1.5 K/W
	per module		0.38 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  
\* for resistive load at bridge output

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



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

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