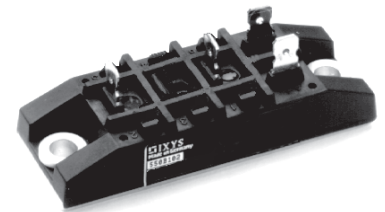
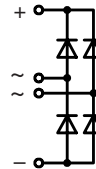


## Single Phase Rectifier Bridge

$I_{dAV} = 45 \text{ A}$   
 $V_{RRM} = 800-1800 \text{ V}$

Preliminary data

$V_{RSM}$ V	$V_{RRM}$ V	Types
900	800	VBO 45-08NO7
1300	1200	VBO 45-12NO7
1500	1400	VBO 45-14NO7
1700	1600	VBO 45-16NO7
1900	1800	VBO 45-18NO7



Symbol	Conditions	Maximum Ratings
$I_{dAV}$ ①	$T_C = 100^\circ\text{C}$ , module	45 A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C};$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 550 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 600 A
$I^2t$	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 500 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 550 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 1520 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine 1520 A <sup>2</sup> s
$T_{VJ}$		-40...+150 °C
		150 °C
$T_{VJM}$		-40...+125 °C
$T_{stg}$		
$V_{ISOL}$	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 (M5) (10-32 UNF)	5 ± 15 % Nm
		44 ± 15 % lb.in.
Weight	typ.	110 g

### Features

- Package with copper base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- 1/4" fast-on power terminals

### Applications

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

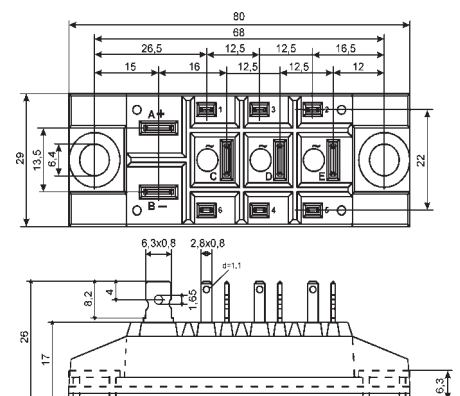
### Advantages

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

Symbol	Conditions	Characteristic Values
$I_R$	$V_R = V_{RRM};$ $T_{VJ} = 25^\circ\text{C}$	$\leq 0.5 \text{ mA}$
		$V_R = V_{RRM};$ $T_{VJ} = T_{VJM}$
$V_F$	$I_F = 150 \text{ A};$ $T_{VJ} = 25^\circ\text{C}$	$\leq 1.7 \text{ V}$
$V_{T0}$	For power-loss calculations only	0.8 V
$r_T$	$T_{VJ} = T_{VJM}$	8 mΩ
$R_{thJC}$	per diode; DC current	1.45 K/W
		per module 0.363 K/W
$R_{thJK}$	per diode, DC current	1.9 K/W
		per module 0.475 K/W
$d_s$	Creeping distance on surface	16.1 mm
$d_A$	Creepage distance in air	7.5 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.

© 2004 IXYS All rights reserved