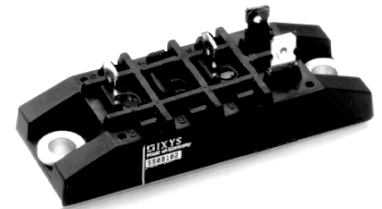
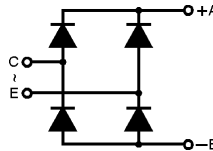


# Single Phase Rectifier Bridge

**$I_{dAV} = 55 \text{ A}$**   
 **$V_{RRM} = 800-1600 \text{ V}$**

Preliminary data

$V_{RSM}$	$V_{RRM}$	Types
V	V	
900	800	VBO 55-08NO7
1300	1200	VBO 55-12NO7
1500	1400	VBO 55-14NO7
1700	1600	VBO 55-16NO7
1900	1800	VBO 55-18NO7



Symbol	Test Conditions	Maximum Ratings
$I_{dAV}$ ①	$T_C = 100^\circ\text{C}$ , module	55 A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}; V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 750 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 820 A
	$T_{VJ} = T_{VJM}; V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 600 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine 700 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}; V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 2800 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine 2820 A <sup>2</sup> s
	$T_{VJ} = T_{VJM}; V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 2200 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine 2250 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 $t = 1 \text{ min}$ $I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$	2500 V~
		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

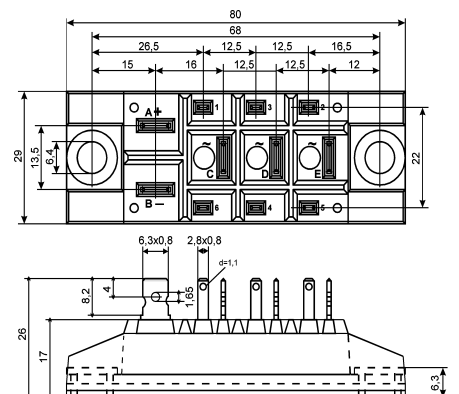
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

## Advantages

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

Symbol	Test Conditions	Characteristic Values
$I_R$	$V_R = V_{RRM}; T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}; T_{VJ} = T_{VJM}$	$\leq 0.5 \text{ mA}$
		$\leq 10 \text{ mA}$
$V_F$	$I_F = 150 \text{ A}; T_{VJ} = 25^\circ\text{C}$	$\leq 1.6 \text{ V}$
$V_{T0}$	For power-loss calculations only	0.8 V
$r_T$	$T_{VJ} = T_{VJM}$	6 mΩ
$R_{thJC}$	per diode; DC current	1.3 K/W
		per module 0.325 K/W
$R_{thJK}$	per diode, DC current	1.6 K/W
		per module 0.4 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>

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



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.