

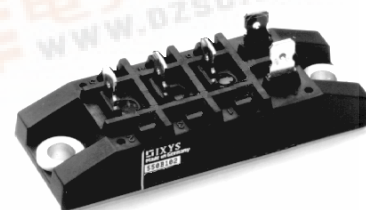
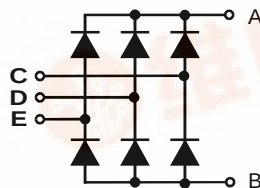
Three Phase Rectifier Bridge

$$I_{dAV} = 100 \text{ A}$$

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

Preliminary data

V_{RSM} V	V_{RRM} V	Types
800	800	VUO 100-08NO7
1200	1200	VUO 100-12NO7
1400	1400	VUO 100-14NO7
1600	1600	VUO 100-16NO7



Symbol	Test Conditions	Maximum Ratings	Features
$I_{dAV}^{①}$	$T_C = 100^\circ\text{C}$, module	100 A	
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	1000 A	• Package with copper base plate
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	1100 A	• Isolation voltage 3000 V~
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	700 A	• Planar passivated chips
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	750 A	• Low forward voltage drop
I^2t	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	5000 A^2s	• 1/4" fast-on power terminals
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	5020 A^2s	
	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	2450 A^2s	
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	2330 A^2s	
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 (M5)	5 ± 15 % Nm	
	(10-32 UNF)	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

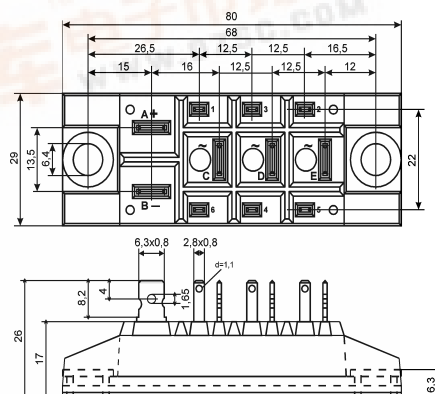
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

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	$V_R = V_{RRM}^{①}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 0.5 \text{ mA}$
	$V_R = V_{RRM}^{①}$; $T_{VJ} = T_{VJM}$	$\leq 10 \text{ mA}$
V_F	$I_F = 150 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	$\leq 1.4 \text{ V}$
V_{T0}	For power-loss calculations only	0.8 V
r_T		5 mΩ
R_{thJC}	per diode; DC current	1.12 K/W
	per module	0.28 K/W
R_{thJH}	per diode; DC current	1.5 K/W
	per module	0.375 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^2

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.