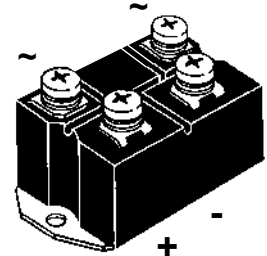
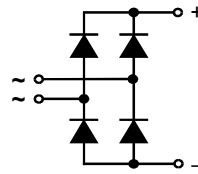


Single Phase Rectifier Bridge

 $I_{dAV} = 52/72 \text{ A}$
 $V_{RRM} = 800-1800 \text{ V}$

V_{RSM} V	V_{RRM} V	Type	
800	800	VBO 52-08NO7	VBO 72-08NO7
1200	1200	VBO 52-12NO7	VBO 72-12NO7
1400	1400	VBO 52-14NO7	VBO 72-14NO7
1600	1600	VBO 52-16NO7	VBO 72-16NO7
1800	1800	VBO 52-18NO7	VBO 72-18NO7



Symbol	Test Conditions	Maximum Ratings		
		VBO 52	VBO 72	
I_{dAV}	$T_C = 100^\circ\text{C}$, module	52	72	A
I_{dAV}	$T_A = 45^\circ\text{C}$ ($R_{thCA} = 0.6 \text{ K/W}$), module	41	49	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	550	750	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	600	820	A
I^2t	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	500	670	A
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	550	740	A
I^2t	$T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine	1520	2800	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	1520	2800	A ² s
I^2t	$T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine	1250	2250	A ² s
	$V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine	1250	2250	A ² s
T_{VJ}		-40...+150		°C
T_{VJM}		150		°C
T_{stg}		-40...+125		°C
V_{ISOL}	50/60 Hz, RMS; $t = 1 \text{ min}$	2500		V~
	$I_{ISOL} \leq 1 \text{ mA}$; $t = 1 \text{ s}$	3000		V~
M_d	Mounting torque (M5)	$5 \pm 15 \%$		Nm
	Terminal connection torque (M5)	$5 \pm 15 \%$		Nm
Weight	typ.	160		g

Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL applied

Applications

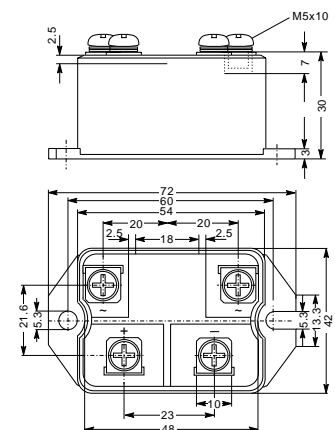
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

Symbol	Test Conditions	Characteristic Values		
		VBO 52	VBO 72	
I_R	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	≤ 0.3	0.3	mA
	$V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$	≤ 5	5	mA
V_F	$I_F = 150 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	≤ 1.8	1.6	V
V_{T0}	For power-loss calculations only	0.8	0.8	V
r_T	$T_{VJ} = T_{VJM}$	8	5	mΩ
R_{thJC}	per diode	1.45	1.1	K/W
	per module	0.36	0.28	K/W
R_{thJK}	per diode	1.87	1.52	K/W
	per module	0.47	0.38	K/W
d_s	Creeping distance on surface	10		mm
d_A	Creepage distance in air	9.4		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. IXYS reserves the right to change limits, test conditions and dimensions.