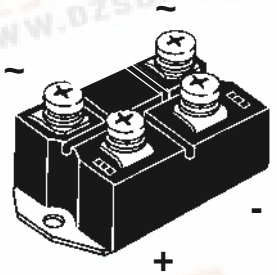
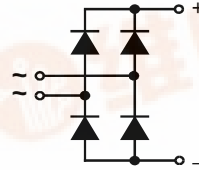


Single Phase Rectifier Bridge

$$I_{dAV} = 174 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
800	800	VBO 160-08NO7
1200	1200	VBO 160-12NO7
1400	1400	VBO 160-14NO7
1600	1600	VBO 160-16NO7
1800	1800	VBO 160-18NO7



Symbol	Test Conditions		Maximum Ratings	
I_{dAV}	$T_C = 100^{\circ}\text{C}$, module		174	A
I_{dAV}	$T_A = 35^{\circ}\text{C}$ ($R_{thCA} = 0.2 \text{ K/W}$), module		139	A
I_{FSM}	$T_{VJ} = 45^{\circ}\text{C}$;	$t = 10 \text{ ms}$ (50 Hz), sine	2800	A
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	3300	A
	$T_{VJ} = T_{VJM}$	$t = 10 \text{ ms}$ (50 Hz), sine	2500	A
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	2750	A
I^2t	$T_{VJ} = 45^{\circ}\text{C}$	$t = 10 \text{ ms}$ (50 Hz), sine	39 200	A^2s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	45 000	A^2s
	$T_{VJ} = T_{VJM}$	$t = 10 \text{ ms}$ (50 Hz), sine	31 200	A^2s
	$V_R = 0$	$t = 8.3 \text{ ms}$ (60 Hz), sine	31 300	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 (M6)		$5 \pm 15 \%$	Nm
	Terminal connection torque (M6)		$5 \pm 15 \%$	Nm
Weight	typ.		270	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

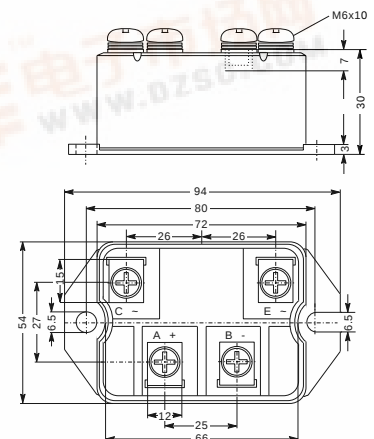
Applications

- 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

Dimensions in mm (1 mm = 0.0394")



Symbol	Test Conditions	Characteristic Values
I_R	$V_R = V_{RRM}^{\dagger}$; $T_{VJ} = 25^{\circ}\text{C}$	≤ 0.3 mA
	$V_R = V_{RRM}^{\dagger}$; $T_{VJ} = T_{VJM}$	≤ 5 mA
V_F	$I_F = 300\text{ A}$; $T_{VJ} = 25^{\circ}\text{C}$	≤ 1.43 V
V_{T0}	For power-loss calculations only	0.8 V
r_T	$T_{VJ} = T_{VJM}$	2.2 m Ω
R_{thJC}	per diode, 180°	0.45 K/W
	per module	0.11 K/W
R_{thJK}	per diode, 180°	0.6 K/W
	per module	0.15 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

Data according to IEC 60747 refer to a single diode unless otherwise stated
IXYS reserves the right to change limits, test conditions and dimensions.

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