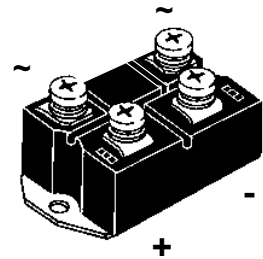
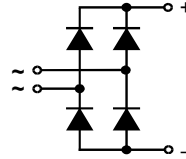


## Single Phase Rectifier Bridge

$I_{dAV} = 174 \text{ A}$   
 $V_{RRM} = 800-1800 \text{ V}$

$V_{RSM}$ 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	Features
$I_{dAV}$	$T_C = 100^\circ\text{C}$ , module	174 A	<ul style="list-style-type: none"> <li>• Package with screw terminals</li> <li>• Isolation voltage 3000 V~</li> <li>• Planar passivated chips</li> <li>• Blocking voltage up to 1800 V</li> <li>• Low forward voltage drop</li> <li>• UL applied</li> </ul>
$I_{dAV}$	$T_A = 35^\circ\text{C}$ ( $R_{thCA} = 0.2 \text{ K/W}$ ), module	139 A	
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C};$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	2800 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	3300 A
$I^2t$	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	2500 A
		$t = 8.3 \text{ ms}$ (60 Hz), sine	2750 A
$I^2t$	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	39 200 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	45 000 A <sup>2</sup> s
$I^2t$	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine	31 200 A <sup>2</sup> s
		$t = 8.3 \text{ ms}$ (60 Hz), sine	31 300 A <sup>2</sup> s
$T_{VJ}$		-40...+150	$^\circ\text{C}$
$T_{VJM}$		150	$^\circ\text{C}$
$T_{stg}$		-40...+125	$^\circ\text{C}$
$V_{ISOL}$	50/60 Hz, RMS $I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ min}$	2500 V~
		$t = 1 \text{ s}$	3000 V~
$M_d$	Mounting torque (M6) Terminal connection torque (M6)		$5 \pm 15 \%$ Nm
			$5 \pm 15 \%$ Nm
Weight	typ.		270 g

Symbol	Test Conditions	Characteristic Values
$I_R$	$V_R = V_{RRM}^*$	$T_{VJ} = 25^\circ\text{C}$ $\leq 0.3 \text{ mA}$
	$V_R = V_{RRM}^*$	$T_{VJ} = T_{VJM}$ $\leq 5 \text{ mA}$
$V_F$	$I_F = 300 \text{ A};$ $T_{VJ} = 25^\circ\text{C}$	$\leq 1.43 \text{ V}$
$V_{T0}$	For power-loss calculations only	0.8 V
$r_T$	$T_{VJ} = T_{VJM}$	2.2 m $\Omega$
$R_{thJC}$	per diode, 180 $^\circ$	0.45 K/W
	per module	0.11 K/W
$R_{thJK}$	per diode, 180 $^\circ$	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 <sup>2</sup>

### Features

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

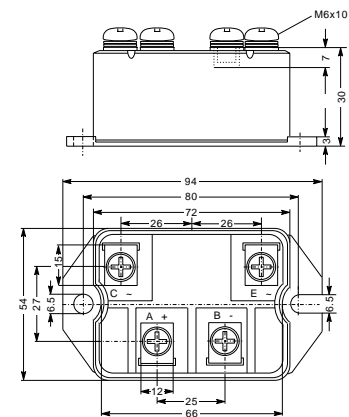
### Applications

- 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")



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