

TECHNICAL DATA  
DATA SHEET 1177, REV. C

## THREE PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLY

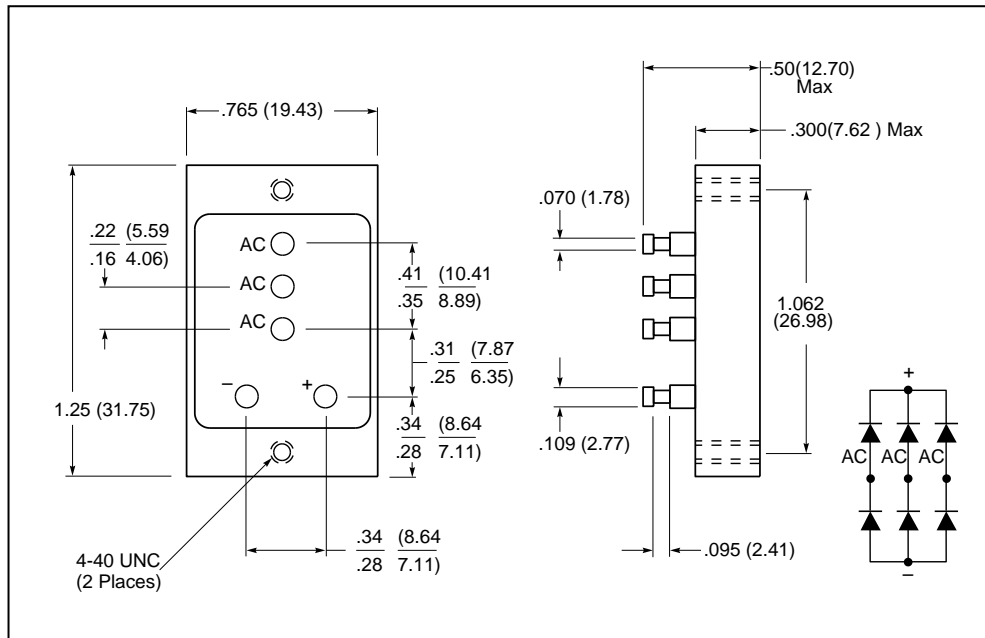
**DESCRIPTION: A 50/100/150 VOLT, 15 AMP, 40 NANOSECOND THREE PHASE BRIDGE RECTIFIER ASSEMBLY.**

**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

| RATING  | CONDITIONS   | MIN | TYP | MAX                  | UNIT               |
|---|--|-----|-----|----------------------|--------------------|
| Peak Inverse Voltage (PIV)<br><br>S10A305HE<br>S10A310HE<br>S10A315HE | -  | -   | -   | 50<br>100<br>150     | Vdc                |
| Average DC Output Current ( $T_C = \text{Case Temp}$ )<br>( $I_o$ )   | $T_C = 55^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$<br>$T_C = 125^\circ\text{C}$ | -   | -   | 15<br>9.0<br>5.0     | Amps               |
| Average DC Output Current Ambient Temp.<br>(no heat sink) ( $I_o$ )   | $T_A = 25^\circ\text{C}$<br>$T_A = 55^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$  | -   | -   | 4.75<br>3.75<br>2.25 | Amps               |
| Peak Single Cycle Surge Current ( $I_{FSM}$ )                         | $t_p = 8.3 \text{ ms}$ Single Half Cycle Sine Wave, Superimposed On Rated Load     | -   | -   | 100                  | Amps(pk)           |
| Peak Recurring Surge Current ( $I_{FRM}$ )                            | $T_A = 25^\circ\text{C}$   | -   | -   | 35                   | Amps               |
| Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ )                  | -  | -55 | -   | +150                 | $^\circ\text{C}$   |
| Maximum Forward Voltage ( $V_f$ )                                     | $I_f = 6.0\text{A}$ (300 $\mu\text{sec}$ pulse, duty cycle < 2%)                   | -   | -   | 1.10                 | Volts              |
| Maximum Instantaneous Reverse Current At Rated (PIV)                  | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$                              | -   | -   | 10<br>100            | $\mu\text{Amps}$   |
| Reverse Recovery Time ( $t_{rr}$ )                                    | $I_f = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$                | -   | -   | 40                   | nsec               |
| Thermal Resistance ( $\theta_{JL}$ )                                  | -  | -   | -   | 3.0                  | $^\circ\text{C/W}$ |

**SENSITRON**  
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**MECHANICAL DIMENSIONS: In Inches / mm**



Notes:  
 Case finish - Black Anodized  
 Potted dimension - uncontrolled

**FIG. 410**

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