

TECHNICAL DATA  
DATA SHEET 6144, REV. B

## THREE PHASE FULL WAVE BRIDGE FAST RECTIFIER ASSEMBLY



**DESCRIPTION: 1000 V, 50 A THREE PHASE BRIDGE RECTIFIER ASSEMBLY WITH FAST RECTIFIERS. REDUCED EMI - LOW  $t_{RR}$  AND  $I_{RM}$ .**

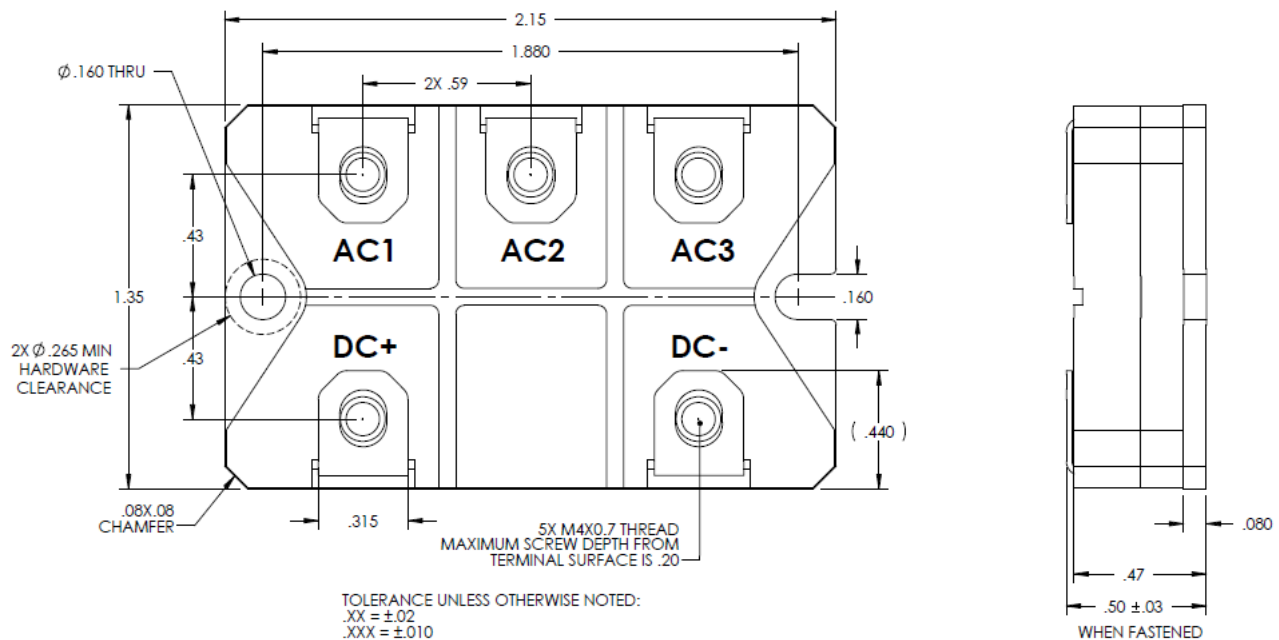
**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

| RATING   | CONDITIONS   | MIN | TYP  | MAX          | UNIT                 |
|--|--|-----|------|--------------|----------------------|
| Non-Repetitive Peak Inverse Voltage (PIV)                                      | $T_C = 25^\circ\text{C}$   | -   | -    | 1200         | Vdc                  |
| Repetitive Peak Inverse Voltage (PIV)  | $T_C = -55^\circ\text{C}$ to $150^\circ\text{C}$   | -   | -    | 1000         | Vdc                  |
| Average DC Output Current ( $T_C = \text{Case Temp}$ ) ( $I_o$ )               | $T_C = 55^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$  | -   | -    | 95<br>50     | A                    |
| Peak Single Cycle Surge Current ( $I_{FSM}$ )                                  | $t_p = 8.3$ ms Single Sine wave $T_C = 25^\circ\text{C}$   | 750 | -    | -            | A                    |
| Single Cycle Energy Rating   | $t_p = 8.3$ ms Single Sine wave $T_C = 25^\circ\text{C}$   | -   | 4650 | -            | $\text{A}^2\text{s}$ |
| Operating and Storage Temp ( $T_{op}$ & $T_{stg}$ )                            | -  | -55 | -    | +150         | $^\circ\text{C}$     |
| Junction Temp ( $T_J$ )  | -  | -55 | -    | +190         | $^\circ\text{C}$     |
| Maximum Forward Voltage ( $V_f$ ) (300 $\mu\text{sec}$ pulse, duty cycle < 2%) | $T_C = 25^\circ\text{C}$ , $I_f = 50\text{A}$<br>$T_C = 125^\circ\text{C}$ , $I_f = 50\text{A}$        | -   | -    | 1.25<br>1.20 | V                    |
| Maximum Instantaneous Reverse Current At 1000V                                 | $T_C = 25^\circ\text{C}$<br>$T_C = 100^\circ\text{C}$  | -   | -    | 25<br>2000   | $\mu\text{A}$        |
| Reverse Recovery Time  | $I_F = 20\text{A}$ , $V_R = 100\text{V}$ , $di/dt = 25\text{A}/\mu\text{s}$ , $T_C = 25^\circ\text{C}$ | 0.6 | -    | 2.0          | $\mu\text{s}$        |

**SENSITRON****TECHNICAL DATA  
DATA SHEET 6144, REV. B****Mechanical / Thermal Characteristics:**

| RATING                                | CONDITIONS                 | MIN | TYP | MAX  | UNIT   |
|---------------------------------------|----------------------------|-----|-----|------|--------|
| Isolation Voltage                     | All Terminals - Base Plate | -   | -   | 1500 | VRMS   |
| Mounting Torque                       | -                          | -   | -   | 15   | In-lb. |
| Terminal Torque                       | -                          | -   | -   | 15   | In-lb. |
| Weight                                | -                          | -   | 60  | 75   | gms    |
| Thermal Resistance ( $\theta_{J-c}$ ) | Per Diode                  | -   | -   | 0.80 | °C/W   |

**Note:** Add a suffix **S** to the part number for S-100 Screening.

**MECHANICAL DIMENSIONS: In Inches****AIMER:**

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