

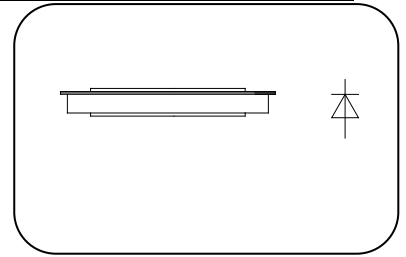
#### Features

- Optimized for high current rectifiers
- Very low threshold voltage and slop resistance
- Very low thermal resistance

#### Typical Applications

- High current application For Welders up to 1000Hz
- Electrode plating

$I_{F(AV)}$       **7100 A**  
 $V_{RRM}$         **200~400 V**  
 $I_{FSM}$          **55 kA**  
 $I^2t$             **15000 10<sup>3</sup>A<sup>2</sup>S**



| SYMBOL               | CHARACTERISTIC                           | TEST CONDITIONS  | T <sub>j</sub> (°C) | VALUE |      |       | UNIT                             |
|----------------------|--|--|---------------------|-------|------|-------|----------------------------------|
|                      |  |  |                     | Min   | Type | Max   |                                  |
| I <sub>F(AV)</sub>   | Mean forward current                     | 180° half sine wave 50Hz<br>Double side cooled, T <sub>C</sub> =85°C     | 175                 |       |      | 7100  | A                                |
| V <sub>RRM</sub>     | Repetitive peak reverse voltage          | V <sub>RRM</sub> tp=10ms<br>V <sub>RSM</sub> = V <sub>RRM</sub> +100V    | 175                 | 200   |      | 400   | V                                |
| I <sub>RRM</sub>     | Repetitive peak current                  | V <sub>RM</sub> = V <sub>RRM</sub>                                       | 175                 |       |      | 50    | mA                               |
| I <sub>FSM</sub>     | Surge forward current                    | 10ms half sine wave  | 175                 |       |      | 55    | kA                               |
| I <sup>2</sup> t     | I <sup>2</sup> T for fusing coordination | V <sub>R</sub> =0V <sub>RRM</sub>  |                     |       |      | 15000 | A <sup>2</sup> s*10 <sup>3</sup> |
| V <sub>FO</sub>      | Threshold voltage                        | I <sub>FM</sub> =5000-15000A   | 175                 |       |      | 0.74  | V                                |
| r <sub>F</sub>       | Forward slop resistance                  |  |                     |       |      | 0.025 | mΩ                               |
| V <sub>FM</sub>      | Max Peak on-state voltage                | I <sub>FM</sub> =5000A, F=30kHz  | 25                  |       |      | 1.05  | V                                |
| Q <sub>rr</sub>      | Recovery charge                          | I <sub>FM</sub> =1000A, tp=2000μs, di/dt=-20A/μs,<br>V <sub>R</sub> =50V | 175                 |       |      | 400   | μC                               |
| R <sub>th(j-c)</sub> | Thermal resistance<br>Junction to case   | At 180° sine double side cooled<br>Clamping force 30.0kN                 |                     |       |      | 0.010 | °C/W                             |
| R <sub>th(c-h)</sub> | Thermal resistance<br>case to heat sink  |  |                     |       |      | 0.005 |                                  |
| F <sub>m</sub>       | Mounting force                           |  |                     | 20    | 30   | 40    | kN                               |
| T <sub>stg</sub>     | Stored temperature                       |  |                     | -40   |      | 175   | °C                               |
| W <sub>t</sub>       | Weight                                   |  |                     |       | 150  |       | g                                |
| Outline              |  |  |                     |       |      |       |                                  |

#### Outline:

